REFERENCE FRAMEWORK OF COMPETENCES FOR DEMOCRATIC CULTURE (RFCDC)

GUIDANCE DOCUMENT FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT

COUNCIL OF EUROPE
CONSEIL DE L'EUROPE

REFERENCE FRAMEWORK OF COMPETENCES FOR DEMOCRATIC CULTURE (RFCDC)

Guidance document for Education for Sustainable Development

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Foreword

Since its inception in 2018, the Council of Europe Reference Framework of Competences for Democratic Culture (RFCDC) has been employed widely by our member states, promoting democracy through educational policy and practice. By providing this guidance document on applying the RFCDC to Education for Sustainable Development (ESD), the Council of Europe's Education Department is offering a response to the urgent and complex sustainability challenges that we face.

At the Council of Europe, our focus is on human rights, democracy and the rule of law – integrating the RFCDC into ESD emphasises the link between our core principles and sustainable development. Aligned with the Reykjavik Declaration and the Council of Europe Education Strategy 2024-2030 "Learners First" – Education for today's and tomorrow's democratic societies, this guidance document aims to equip educators and policy makers with tools and strategies that empower learners to stand up for sustainable development.

The Steering Committee for Education (CDEDU) is involved in the Ad hoc Multidisciplinary Group on the Environment (GME), which was set up to streamline the environmental and sustainability initiatives carried out across our intergovernmental committees. The GME developed the Council of Europe Strategy on the Environment, which was adopted by the Committee of Ministers in May 2025. The strategy encourages member states to take a human rights-based approach to environmental policy making and protection. In the action plan accompanying the strategy, the guidance document on applying the RFCDC to ESD and two other CDEDU activities – the European Space for Citizenship Education and the "Education resilience in times of emergencies and crisis – EDURES toolkit" – are referenced.

This guidance document is part of a larger series of RFCDC publications. In addition to the three volumes setting out the concept, descriptors and implementation of the RFCDC, the Council of Europe's Education Department has produced work on applying the RFCDC to vocational education and training (VET) to promote the importance of citizenship, participation and democratic values in vocational settings, and to digital citizenship education (DCE) to explain how competences for democratic culture (CDC) are used to underpin digital citizenship education in classroom settings.

I would like to thank the Working Group on Education for Sustainable Development for shaping this publication with critical insight, extensive expertise and strong commitment. I would also like to extend my gratitude to the secretariat of the Education Department for its exceptional dedication in co-ordinating and organising this work. I strongly recommend this guidance document to all stakeholders in education who want to build a greener future and a more just world in which every learner can thrive.

Villano Qiriazi
Head of the Education Department
Council of Europe

Executive summary

This guidance document explains how the Council of Europe's Reference Framework of Competences for Democratic Culture (RFCDC) may be applied to Education for Sustainable Development (ESD). There are many advantages to basing ESD on the RFCDC including, fundamentally, empowering learners to undertake individual and collective action to promote sustainable development.

The document contains eight main sections, which address the following issues.

Section 1 describes the three principal audiences for whom this guidance document has been produced: education policy makers; educators at the pre-primary, primary and secondary school levels; and non-formal educators working with learners of all ages.

Section 2 explains the overall purpose of this guidance document and offers a brief overview of its contents. This section also provides a definition of ESD based on the institutional mission of the Council of Europe.

Section 3 presents the rationale for ESD in light of the global environmental crisis and the need for education to respond to this crisis and contribute to the green transition of our societies. Young people are currently experiencing high levels of eco-anxiety and are demanding both climate action and effective ESD. Research has revealed that education has an important role to play here. In particular, learning that promotes learners' sense of self-efficacy, their connection with nature and their engagement in social groups with norms supporting action helps to promote their engagement in pro-environmental behaviours. In addition, their engagement in practical, community-based environmental action helps to reduce their eco-anxiety and increase their levels of well-being.

There is no European education system that does not cover the topic of sustainability; however, this topic is not commonly included in citizenship education. Hence, there is room for improvement in educational provision. Young people's voices will continue to be essential in advocating for sustainability action and education, and ESD based on the RFCDC can be used to empower them.

Section 4 presents the many benefits of linking ESD with the RFCDC, including instilling hopefulness in students and motivating them to take action. The section outlines effective pedagogies for motivating learners, building their capacities and inspiring them to take action to promote sustainability. Transformative pedagogies – such as project-based learning and outdoor learning – need to be grounded in the local environmental, social and economic contexts. They can then be implemented in relation to the conditions students face first-hand and that are of high

importance to them. Deeper engagement with the sociopolitical and psychosocial dimensions of the environmental crisis is critical to developing feelings of personal responsibility for the environment and motivating pro-sustainability behaviours. ESD based on the RFCDC not only benefits learners' ability to undertake democratic pro-environmental actions; it also strengthens their capacity for democratic action more generally. The section contends that ESD based on the RFCDC and its values of human dignity, human rights, cultural diversity, inclusion, equality and climate justice can be a transformative learning experience. This is especially important in the case of students who are experiencing climate change impacts that are disproportionately higher than those experienced by others and students who are members of groups experiencing oppression, disadvantage, marginalisation or other vulnerabilities.

Section 5 explains how the RFCDC can be used as the foundation for ESD. It begins by examining three other competence frameworks that may be used for ESD, namely the ESD framework of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the GreenComp framework of the European Commission and the Global Competence framework of the Organisation for Economic Co-operation and Development (OECD). The core features of the RFCDC are also described, with particular attention being paid to the 20 competences that it proposes. These competences fall into four broad categories: values, attitudes, skills, and knowledge and critical understanding. It is shown that if learners develop all 20 RFCDC competences to a high level of proficiency, and if they also learn how to apply these competences in flexible clusters to situations involving environmental and sustainability issues (as recommended by the RFCDC) and adopt an attitude of global-mindedness, then those learners will also have mastered all the competences that are specified by the other three frameworks. This section also explains the concept of democratic culture that underpins the RFCDC and provides detailed descriptions of how each of the 20 RFCDC competences relates to environmental and sustainability issues. It is emphasised that education policy makers and practitioners who wish to apply the RFCDC to policy and practice in ESD should refer to these new descriptions of the 20 RFCDC competences as they relate specifically to environmental and sustainability issues.

Section 6 explores the practical application of the RFCDC to ESD. It examines different curricular implementation strategies, including cross-curricular integration, embedding ESD within citizenship education and incorporating ESD within science education. It also discusses effective pedagogical methods. These include: educators modelling sustainability values, attitudes and practices in the classroom; co-operative learning; inquiry-based learning; project-based learning; service learning; supporting learners' critical reflection; outdoor learning, field work and volunteerism; and place-based learning. The need for educators to teach controversial issues is also discussed. The various methods that can be used for formative and summative assessment when implementing ESD based on the RFCDC are also examined. These include, *inter alia*, dialogue-based assessment, activity-based self-assessment, project-based assessment, and reflective journals, portfolios and e-portfolios.

Section 6 also highlights the importance of aligning curriculum, pedagogy and assessment to ensure coherence in developing students' values, attitudes, skills, knowledge and critical understanding, and emphasises the use of a whole-school approach for fostering learners' sustainability and democratic competences. Teacher education

is addressed, examining the need for systematic training and capacity building for educators to effectively implement ESD based on the RFCDC. The section stresses the importance of supportive policies, adequate teaching and learning resources, and institutional commitment for embedding sustainability and democratic competences in educational practices successfully. Learners' digital literacy and the need to integrate digital resources into the teaching of ESD based on the RFCDC is also examined. Finally, this section addresses the importance of preparing students for green jobs by equipping them with the necessary competences for sustainability-driven careers. Throughout this section, case examples are used to illustrate how the various practices that are being discussed can be implemented in real-world educational settings, providing insights into successful implementation.

Section 7 contains recommendations for the three main audiences of this guidance document: education policy makers, educators from the pre-primary to secondary school levels and non-formal education educators working with learners of all ages. These recommendations, which build primarily on Section 6, address a wide range of needs and strategies, including curriculum policies, teacher training, pedagogical innovation, collaboration, assessment and localisation. Implementation of these recommendations will result in inclusive and effective education policies and practices that will engage and activate learners, strengthen civic action and democracy, and ultimately make a positive contribution to sustainability. Education policy makers and practitioners should select those recommendations that are most relevant and feasible to implement within their own educational and institutional contexts.

Finally, Section 8 of this publication provides a list of open access resources that can be used to support the implementation of the RFCDC, the implementation of ESD based on the RFCDC and the implementation of ESD more generally.

Part I

Introduction and rationale

Section 1 – Who is this guidance document for?

The main target groups for this guidance on how to apply the Reference Framework for Competences for Democratic Culture (RFCDC)[1] to Education for Sustainable Development (ESD) are:

- education policy makers;
- educators at the pre-primary, primary and secondary school levels;
- non-formal educators working with learners of all ages.

Education policy makers include those operating at different levels (local, subnational, national, international), including schools, municipalities, regions and states. They include policy makers, policy interpreters, policy enactors, advisors and other critical post-holders influencing intended, implemented and achieved curriculum.

Educators at the pre-primary, primary and secondary school levels include teachers, assistant teachers, special educators, classroom practitioners, heads of department, curriculum leaders, education office staff and school principals.

Non-formal educators include those who work in public institutions but do not have a formal education role (e.g. educators of after-school programmes), non-governmental organisations (NGOs), civil society organisations (CSOs) such as the Scouts and youth workers, professional associations, libraries and museums, and so on.

Section 2 – Purpose and overview of the guidance document

ESD is consistent with, and supports, several transformative education goals, such as 21st-Century Skills, the 2030 Agenda and the United Nations Sustainable Development Goals (SDGs). For example, ESD is highlighted specifically in SDG Target 4.7 (see Box 1).

1. For an overview of the RFCDC see Council of Europe, Reference Framework of Competences for Democratic Culture, available at https://coe.int/en/web/reference-framework-of-competences-for-democratic-culture, accessed 8 May 2025.

Box 1 – Sustainable Development Goal Target 4.7[2]

Target

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

Indicators

Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (*a*) national education policies; (*b*) curricula; (*c*) teacher education and (*d*) student assessment.

The main purpose of the current guidance document is to encourage and support ministries of education and education policy makers, teachers and non-formal educators to provide enriched programmes of study for learners in which ESD is linked effectively to citizenship education through the use of the Council of Europe's RFCDC. The RFCDC sets out 20 competences that our education systems should develop in students to prepare them for lives as active citizens in democratic societies, and these competences can be readily applied to ESD. This publication explains how this may be achieved.

In supporting this aim, the guidance will explain to education policy makers and practitioners:

- the relationship between the RFCDC and the competences that should be promoted through ESD;
- the added value that is gained by using the RFCDC for ESD, which includes the added emphasis on democracy and human rights;
- how the RFCDC can be used to enhance ESD, particularly in relation to promoting the ability of young people to take responsible individual action and collective peaceful democratic action in support of sustainability;
- the benefits for young people of taking democratic action on sustainability issues.

The guidance is divided into several sections, focusing on the following topics:

- the urgency of addressing the role of education in relation to the environment and sustainability;
- the benefits of linking ESD to citizenship education focused on democracy and human rights;
- how the competences in the RFCDC are related to ESD as conceptualised by the ESD framework of the United Nations Educational, Scientific and

2. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, available at https://sdgs.un.org/goals/goal4#targets_and_indicators, accessed 18 May 2025.

Cultural Organization (UNESCO), the GreenComp framework of the European Commission and the Global Competence framework of the Organisation for Economic Co-operation and Development (OECD);[3]

- applying the RFCDC to ESD in practice, with attention to curricular integration, transformative pedagogies, formative and summative assessment methods, the whole-school approach, and implications for pre- and in-service teacher education, and teaching and learning resources;
- recommendations for implementation, broken down according to stakeholder group: education policy makers; teachers at the pre-primary, primary and secondary school levels; and non-formal educators working with learners of all ages;
- open access resources that can assist in RFCDC and ESD curriculum conception and implementation.

Before we turn to these various topics, it will be helpful to provide an initial definition of ESD from the perspective of the Council of Europe. Institutionally, the mission of the Council of Europe is to promote and safeguard human rights, democracy and the rule of law throughout Europe and beyond. As part of this mission, the Education Department supports member states to use their educational policies and practices to ensure that all individuals living within their borders acquire the competences that are needed to promote and protect human rights, democracy and the rule of law.

Within this institutional context, ESD may be defined as education that seeks to promote the competences that individuals require for:

- understanding environmental and sustainability issues and the challenges facing humankind and the planet, and recognising the interconnectedness of global systems;
- taking responsible individual decisions and actions that support sustainability and help protect the environment;
- taking responsible collective decisions and actions through peaceful democratic means to ensure environmental sustainability and the sustainable development of their societies;
- ensuring the sustainable, collective well-being of humankind, both in the present and in the future, based on the principles of human dignity, human rights, democracy, the rule of law, equity, social justice, intercultural understanding and respect.

What this definition brings out is the importance of education for peaceful and democratic action. This involves individual behaviours related to the environment and sustainability. It also involves the responsibility to influence decision makers and other members of the public to engage in practices that protect the environment and all living things dependent upon it, ensure sustainable economic development, and promote and protect the well-being of all those who are negatively affected by climate change and environmental degradation.

3. A fourth framework, the United Nations Economic Commission for Europe (UNECE) framework of the competences required by educators to teach ESD (rather than a framework of the competences that learners need to acquire through ESD), is discussed later in the document when we examine pre-service and in-service teacher education (Section 6.6).

Section 3 – The urgency of education to address the environmental crisis and sustainability

This section presents the rationale for ESD in light of the global environmental crisis and the need for education to respond to this crisis and contribute to the green transition of our societies. Young people are currently experiencing high levels of eco-anxiety and are demanding both climate action and effective ESD. Research has revealed that education has an important role to play here. In particular, learning that promotes learners' sense of self-efficacy, their connection with nature and their engagement in social groups with norms supporting action helps to promote their engagement in pro-environmental behaviours. In addition, their engagement in practical, community-based environmental action helps to reduce their eco-anxiety and increase their levels of well-being.

There is no European education system that does not cover the topic of sustainability; however, this topic is not commonly included in citizenship education. Hence, there is room for improvement in educational provision. Young people's voices will continue to be essential in advocating for sustainability action and education, and ESD based on the RFCDC can be used to empower them.

3.1. The environmental crises the world is currently facing

Climate change and the degradation of the environment and biodiversity pose an unprecedented challenge to the global community. Their repercussions affect all aspects of sustainable development, including human health and well-being, food security, economic growth, natural resources and biodiversity. They affect the very survival of human beings and terrestrial and aquatic species. Facing this challenge requires behavioural changes to adapt and respond to immediate crises, while also learning to adopt more sustainable practices to reduce threats to the planet such as greenhouse gas emissions in the longer term. This is a situation that requires urgent international co-operation and co-ordinated solutions at all levels, including in schooling. There is a growing call for all forms of education and learning to fully enable individuals, as agents of change, to acquire the values, attitudes, skills, knowledge and understanding needed to contribute effectively to the green transition of our societies, including career pathways.

3.2. Young people's levels of anxiety about the environmental crisis

The International Civic and Citizenship Education Study (Schulz et al. 2023a) indicates increases of 14 percentage points between 2016 and 2022 in students seeing climate change as a threat to a large extent. The increase was six percentage points in the case of water shortages and three percentage points for pollution. Eighty per cent of students rated making changes to one's personal lifestyle in order to become more environmentally friendly important for good citizenship. This rate was higher for teachers, at 92%. On average, students with higher levels of civic knowledge scored

significantly higher on environmental concern than those with lower levels of civic knowledge, reaffirming the importance of linking ESD with citizenship education.

Yet, young people often feel hopeless about the environmental crisis and many are currently experiencing significant levels of eco-anxiety, that is anxiety about climate change, environmental degradation and ecological disaster.[4] Young people – especially those who have already been active in addressing environmental sustainability – may feel fatigue at the lack of progress. Hence, it is important that the approach to ESD within schools frames students' engagement with factual knowledge within a spirit of optimism and hope. Indeed, both formal and non-formal education must address the complex emotions that young people are experiencing. While it is crucial for learners to comprehend climate-related changes, for example, this knowledge should serve as a catalyst for positive attitudinal and behavioural shifts. Learning environments should foster both concern and hope, as well as opportunities for transformative action.

Inclusion of the socio-emotional learning dimension, which is critical for ESD and is central to the RFCDC (particularly through its emphasis on values and attitudes), can often be lacking in current education for the environment and sustainable development (UNESCO and MECCE 2022). Indeed, national laws, policies and intended curricula pertaining to formal basic education contain a declining emphasis on the social and behavioural dimensions of learning across education levels, with the focus on the cognitive dimension increasing in upper education levels. ESD can help re-centre the socio-emotional dimension (Tibbitts et al. 2023).

It is pertinent to note that, due to the anxiety that many young people feel about the environmental crisis, they themselves are now calling for more effective education on climate education and sustainability.[5] Furthermore, they want an education that provides them with more information not only about the current climate and environmental crises but also about how to take more effective personal and collective action in relation to these crises.

3.3. Even with scientific knowledge related to environmental challenges, young people do not necessarily take action

The focus of ESD currently is on content knowledge, with a scientific focus. Yet, despite possessing scientific knowledge about environmental challenges, young people are not automatically inclined to take action. For example, knowledge of climate change is not strongly related to pro-climate mitigation behaviours. Rather, it is a young person's sense of self-efficacy, their connection with nature and their engagement in social groups with norms supporting action that are strong predictors of pro-climate mitigation behaviours and sustainable lifestyles (Busch et al. 2019).

For education to be truly transformative in terms of the behaviour of individuals and to have an impact on society, it needs to address the values of learners and help them in developing competences, including critical thinking, that enable them to take effective action. Themes related to environmental, social and economic sustainability

4. Hickman et al. 2021; Pihkala 2020; Ojala et al. 2021; UNESCO 2024.
5. Harbour 2021; Teach the Future (n.d.); UNESCO 2024; Walfusz 2021.

should be holistically treated, including the social and natural science disciplines and humanities, and should, moreover, be interdisciplinary. Hence the importance of ESD that explicitly addresses values and behaviours, such as those promoted by active citizenship education.

3.4. Young people's activism is key to addressing environmental and sustainability challenges associated with climate change

Global activism by young people has been particularly pronounced in relation to climate change. There are multiple connection points between young people and environmental action. For example, young people's activism is helping to drive government responses to climate change, including within education systems. The fostering of young people's leadership and action should be a required part of the curriculum, and this is part of the transformative agenda of both ESD and the RFCDC.

There is a growing demand among young people for policies that secure their constitutional right to information and preparedness regarding climate change (the School Strike for Climate movement – also known as #FridaysforFuture – initiated by Greta Thunberg in 2018 is a notable example). Youth have also been central in numerous climate litigation cases, in which they have demanded that governments take action on climate change and comply with their legal commitments to limit global warming (a prominent example here being the case of *Duarte Agostinho and Others v. Portugal and 32 Others*, which was lodged at the European Court of Human Rights by six Portuguese youth in 2020[6] – although this application to the Court was deemed inadmissible, it is one of many examples of youth-led climate litigation).

The UN has urged governments to take decisive action to safeguard the welfare and rights of children amidst the escalating climate crisis. The Council of Europe has also been involved in supporting youth voices in climate action through its Youth Sector Strategy 2030, a recommendation on young people and climate action, and symposia aimed at promoting youth engagement in policy making on the climate crisis.[7] A goal of these efforts is to encourage and support more young people to address sustainability in their own lives, to educate others and to influence public sector decision makers and private sector actors with the power to address climate change. ESD is central to this effort.

3.5. Educational systems' incomplete responses to the imperative to address environmental issues and promote sustainable solutions

Most teachers and students believe that climate change is occurring and view education as necessary to address it. However, according to UNESCO data, only one third of teachers worldwide feel able to effectively explain the effects of climate change in their regions (UNESCO 2021) and 70% of young people cannot explain the broad principles of climate change due to a lack of quality in the current way it is taught (UNESCO and MECCE 2022). Fortunately, virtually all European education

6. See https://hudoc.echr.coe.int/eng/?i=002-14303, accessed 9 May 2025.
7. See Council of Europe Youth Sector Strategy 2030, available at coe.int/en/web/youth/youth-strategy-2030, accessed 9 May 2025.

systems include the topic of sustainability in their required curricula, according to a recent Eurydice report (European Commission, European Education and Culture Executive Agency, and Eurydice 2024). Teaching of sustainability competences most often involves a cross-curricular approach. However, sustainability competences are almost always included in science subjects and geography, and to a lesser extent in citizenship education. Moreover, "individual and collective action" competences are more frequently present at the secondary level and not at lower grades.

Globally, teachers feel that they lack the necessary training, resources and structural support to teach sustainability issues effectively, conditions exacerbated by a lack of time and an overcrowded curriculum. The Eurydice report also demonstrates that targeted support, guidance and training opportunities for teachers and school leaders could be reinforced. Regulations and guidelines for education programmes for prospective teachers include sustainability-related competences or learning objectives in less than half of European education systems. Support for the professional development of in-service teachers and school heads is more common, although participation in training is rarely mandatory. While the majority of European education systems provide guidance for schools to enable them to develop a whole-school approach to sustainability, financial and non-financial support for specific school activities is less common. Less than a third of all education systems have established specific criteria related to learning for sustainability in either external or internal school evaluations, so this is another area for potential improvement.

These are all policy areas that this guidance document intends to reinforce.

Section 4 –The benefits of linking ESD to citizenship education focused on democracy and human rights

This section presents the many benefits of linking ESD with the RFCDC, including instilling hopefulness in students and motivating them to take action. The section outlines effective pedagogies for motivating learners, building their capacities and inspiring them to take action to promote sustainability. Transformative pedagogies – such as project-based learning and outdoor learning – need to be grounded in the local environmental, social and economic contexts. They can then be implemented in relation to the conditions students face first-hand and that are of high importance to them. Deeper engagement with the sociopolitical and psychosocial dimensions of the environmental crisis is critical to developing feelings of personal responsibility for the environment and motivating pro-sustainability behaviours. ESD based on the RFCDC not only benefits learners' ability to undertake democratic pro-environmental actions; it also strengthens their capacity for democratic action more generally. The section contends that ESD based on the RFCDC and its values of human dignity, human rights, cultural diversity, inclusion, equality and climate justice can be a transformative learning experience. This is especially important in the case of students who are experiencing climate change impacts that are disproportionately higher than those experienced by others and students who are members of groups experiencing oppression, disadvantage, marginalisation or other vulnerabilities.

4.1. The positive effects of taking individual and collective democratic action in relation to sustainability issues on young people's levels of anxiety and well-being

There is a need for both top-down policy change as well as bottom-up cultural shifts that respond to young people's activism. ESD based on the RFCDC, which the Council of Europe is advocating, will provide opportunities for young people to learn about democratic change-making processes. This is consistent with the notion of transformative learning and ESD.

There are a number of ways to instil hopefulness and motivate learners to take action. One possibility is to match the problem to a scale that learners can approach. In other words, rather than exploring global change, they can look at local community impacts and strategies that communities could use. For example, first-hand exposure to people who are currently experiencing the impacts of non-sustainable models of life, and interaction with scientists who study issues of sustainability, can help to motivate students to learn more and empower them to take action. For all learners, this might involve them communicating information to other audiences such as policy makers and news media. In addition, actions can be linked to sustainability by explaining how personal behaviours affect carbon emissions or adaptation efforts.

A key point is that the learning content needs to be relevant and contextualised for students through the lens and exploration of local issues. While topics and the concepts may be broad and global in promoting students' understanding of the extent of environmental impacts, particularly for those most affected by climate change and environmental degradation in certain parts of the world, engagement of young people is best achieved through considering sustainability issues in their own locale. Knowledge of local land and people, including Indigenous peoples (such as the Sami in Europe), is increasingly important for sustainability strategies. For this reason, whenever possible, learning outcomes proposed should be applied and grounded in the local environmental, social and economic context so that they can be implemented in relation to actual conditions of which students have first-hand experience. Such place-based education is known to be effective in producing cognitive, socio-emotional and behavioural benefits for learners' agency, voice and action competences (Hernandez Gonzalez 2023; Yemini, Engel and Ben Simon 2023).

Importantly, learners who receive high-quality education on ESD are more likely to develop a strong personal connection to nature and environmental issues. This connection subsequently has a positive impact on their daily behaviours, energy consumption and carbon emissions, even many years later. Furthermore, those who are more connected to nature and the environment have been found to have higher levels of well-being and lower levels of eco-anxiety (Cordero et al. 2020; Craig and Allen 2015; Pritchard et al. 2020).

4.2. Effective pedagogies for motivating young people, building their capacities and inspiring them to take action to promote sustainability

Existing literature on ESD includes theoretical and empirical treatment of pedagogy. These are already well established in Council of Europe citizenship education

resources.[8] Approaches include learner-centred, active, critical, reflective and collaborative practices. ESD approaches have highlighted the importance of learning in nature and place-based pedagogy. Indeed, pedagogies have as much of a transformative impact on learners in primary and secondary education as the sustainability content. Learning outcomes require the use of critical pedagogies that aim to ensure that learners take action to address environmental and sustainability challenges. Taking action is essential not only for addressing these challenges but also for protecting learners from feelings of helplessness.

While not exhaustive, the following transformative pedagogical approaches support students in becoming informed and responsible citizens:

- educators modelling values, attitudes and practices in the classroom;
- co-operative learning;
- inquiry-based learning;
- project-based learning;
- service learning;
- supporting critical reflection;
- outdoor learning, fieldwork and volunteerism;
- place-based learning.

This guidance document provides further detail on all of these pedagogical approaches in Section 6.

4.3. The advantageous effects of linking ESD to citizenship education focused on democracy and human rights, compared with teaching ESD through the lens of environmental science and the natural sciences alone

Deeper engagement with the sociopolitical and psychosocial dimensions of the environmental crisis is critical to developing feelings of personal responsibility for the environment and motivating pro-sustainability behaviours. Importantly, such an approach aims to develop citizenship values, attitudes and skills in conjunction with greater awareness and understanding of social and economic systems, not in isolation. Teaching ESD through the lens of the sciences alone fails to achieve all of these crucial outcomes.

ESD highlights the interconnections of the climate crisis to the environmental, social and economic pillars of sustainable development and proposes that learners be empowered to tackle issues in all three domains (see Box 2). This holistic approach of ESD is the basis for improving the quality and delivery of education responses to the climate crisis and moving learning beyond conventional subject areas and traditional content.

8. See Council of Europe, Education for Democratic Citizenship and Human Rights Education (EDC/HRE) – Publications, available at https://coe.int/en/web/edc/publications, accessed 10 May 2025.

Box 2 – The three ESD domains: environment, society and economy

Environment: this domain draws on a holistic view of the environment, drawing on the physical and biological sciences, and including the impact of human activities on natural processes.

Society: this domain envisions society as human arrangements where every individual has an active role to play, based on the fundamental values of equity, equality, social justice, human rights, freedoms, tolerance and diversity. Societal transformation for sustainable development involves equipping learners with the values, attitudes, skills and knowledge required for advocating for a just and sustainable society for present and future generations.

Economy: this domain covers a complex and multidimensional system of relationships including the production, consumption, distribution and exchange of goods, with inclusive and sustainable means of continued development and employment. A shared and circular view of the green economy envisions alternatives to unsustainable production and consumer-heavy societies driven by the notion of unlimited growth.

Source: UNESCO (2024)

These three ESD domains are not isolated but, rather, inextricably linked. For example, government (societal) sustainability policies will relate to economics as well as the environment. Yet these domains help to tease out themes to be addressed in a holistic approach to ESD (UNESCO 2024).[9]

4.4. The benefits for citizenship education of using sustainability as an authentic arena for learning about human rights and for promoting individual and collective democratic action

Education systems are particularly well-positioned to equip learners with a foundation of scientific understanding and social and emotional learning related to sustainability. This foundation should also include an understanding of how society can respond to climate challenges, integrating a justice-focused approach that examines the human rights at stake in relation to climate change, such as the right to life and the right to health. Education systems can also foster constructive coping strategies and the building of leadership skills for transformed futures. This is the transformative potential of ESD.

ESD as envisaged here would not only benefit learners' ability to undertake democratic pro-environmental actions. It would also strengthen learners' capacity for democratic action more generally, by providing them with the opportunity to practise and consolidate their competences for democratic culture within an authentic arena of activity that is of extremely high importance and concern to learners themselves in their everyday lives.

9. For a more expansive discussion of the connections between the fields of citizenship education and ESD, see Jordan et al. (2023).

The co-operation and support of parents, families and other community actors need to be sought from the outset and regularly reinforced. Schools that function in this action-oriented way are "living labs" where students acquire various hands-on skills through working within the local community and with others from the school's broader ecosystem. In this way the curriculum, whether formal or non-formal, engages and involves learners in mitigation and adaptation practices that can empower individuals, mobilise others and catalyse collective actions.

Examples of community-based projects are varied and include understanding the location-based impact of climate change on coastlines, islands and cities. Learning experiences may also involve first-hand exposure to people who are currently experiencing climate change and interaction with scientists who study climate change. Such strategies help to motivate students to learn more and empower them to take action. In addition, programmes may link actions to sustainability by highlighting the connections that personal behaviours have to carbon emissions or adaptation efforts.

4.5. The opportunity for young people to learn, through sustainability, about democracy and human rights as well as cultural diversity, inclusion, equality, climate justice and active participation

In the case of ESD and citizenship education it is important to consider learner backgrounds. For example, student cultures, identities and individual experiences in relation to climate change and sustainability may influence their interests and ability to engage. Special efforts should be made to support the well-being of students who may be experiencing more significant climate change impacts. ESD can be seen as a potential transformative learning experience, not only around addressing climate change but also for the empowerment of those students who are members of groups experiencing oppression, disadvantage, marginalisation or other vulnerabilities.

In addition, ESD provides substantial benefits for students who are not members of oppressed, disadvantaged, marginalised or vulnerable groups. In particular, combining the study of biological diversity and sustainability with the study of climate justice, social justice and cultural diversity, especially in relation to vulnerable and Indigenous peoples across the world whose ways of life and cultural practices are endangered by climate change, can contribute significantly to the development of capacities such as empathy, respect for cultural otherness and solidarity, all of which are crucial components of both intercultural and democratic competence.

4.6. Links between ESD and Global Citizenship Education

It should be noted that the competences relating to the environment and sustainability that should be fostered through ESD can be construed as a subset of the broader set of competences that are required for responsible, respectful and effective global citizenship. UNESCO has long viewed global citizenship as a broader goal that should be pursued by education systems in the form of Global Citizenship Education (GCE), which is aimed at equipping learners with the knowledge, skills, attitudes and values that are needed to secure a just, peaceful, tolerant, inclusive, secure and sustainable world (UNESCO 2014). According to UNESCO, the overall aim of GCE is to

prepare learners to deal with the challenges of today's increasingly interconnected and interdependent world and, arguably, the most significant challenge faced by the contemporary world is that presented by the environmental crisis. Hence, there is a considerable overlap between GCE and ESD in their intended learning outcomes, but with ESD placing greater emphasis on environmental and sustainability issues and the interconnectedness of global environmental, social and economic challenges, and GCE placing greater emphasis on a sense of global belonging, universal human rights, peace and respect for cultural differences and diversity (alongside sustainability). Not surprisingly, UNESCO proposes that, despite these differences, GCE should, just like ESD, use transformative learner-centred pedagogies as well as a whole-school approach in order to maximise its effectiveness.

The North-South Centre of the Council of Europe has also developed a set of Global Education Guidelines, which are aimed at enhancing global education within Europe and beyond (North-South Centre of the Council of Europe 2019). These guidelines (much like the current guidance document) draw on the RFCDC for the conceptualisation of the specific competences that need to be promoted in learners. However (in contrast to the present document), the guidelines focus primarily on global citizenship rather than on ESD, and they do not consider the relationship between the RFCDC and ESD in any detail. However, the guidelines do provide some useful examples of how global education projects can be designed, monitored and evaluated in order to foster learners' competences. The guidelines also stress the need to use pedagogical methods that are transformative, learner-centred and experiential; these methods also need to involve critical enquiry and co-operation, as well as multiple disciplines. We will return to these pedagogical issues in Section 6 of the current document.

4.7. Conclusion

There is an urgent need to empower young people to take both individual and collective democratic action on environmental and sustainability issues. Empowering them will not only enable them to influence others, including fellow citizens, decision makers and other societal actors, but will also have positive effects on their personal well-being. Furthermore, embedding ESD within citizenship education will enable young people to learn about human rights, democracy, cultural diversity, equity and equality within an authentic learning arena to which young people themselves are deeply committed. There are therefore many significant benefits that can be obtained by linking ESD to citizenship education. One way in which this can be achieved is by using the RFCDC as the foundation for ESD. Section 5 explains how this may be done.

Section 5 – Using the RFCDC as the foundation for ESD

This section explains how the RFCDC can be used as the foundation for ESD. It begins by examining three other competence frameworks that may be used for ESD, namely UNESCO's ESD framework, the European Commission's GreenComp framework and the OECD's Global Competence framework. The core features of the RFCDC are also described, with particular attention being paid to the 20 competences that it proposes. These competences fall into four broad categories: values, attitudes, skills, and knowledge and critical understanding. It is shown that if learners develop all 20 RFCDC competences to a high level of proficiency, and if they also learn how to apply these competences in flexible clusters to situations involving environmental and sustainability issues (as recommended by the RFCDC) and adopt an attitude of global-mindedness, then those learners will also have mastered all of the competences that are specified by the other three frameworks. This section also explains the concept of democratic culture that underpins the RFCDC and provides detailed descriptions of how each of the 20 RFCDC competences relates to environmental and sustainability issues. It is emphasised that education policy makers and practitioners who wish to apply the RFCDC to policy and practice in ESD should refer to these new descriptions of the 20 RFCDC competences as they relate specifically to environmental and sustainability issues.

5.1. The existing international frameworks for ESD and their relationship to the RFCDC

The RFCDC was originally developed as a comprehensive reference framework covering Education for Democratic Citizenship (EDC), Human Rights Education (HRE) and Intercultural Education (IE).[10] As such, it was not originally conceptualised as a framework for ESD. Instead, ESD has been much more directly addressed by three other international frameworks, namely UNESCO's ESD framework, the European Commission's GreenComp framework and the OECD Programme for Student Assessment (PISA) Global Competence framework (European Commission 2022; OECD 2018; UNESCO 2017, 2020, 2024). These are therefore the frameworks that are currently used for thinking about and conceptualising ESD.[11]

Each of these three frameworks provides a description of the specific competences that need to be promoted in learners through ESD. However, it is notable that the competences described by the three frameworks differ in terms of their number, contents and scope. Table 1 lists the competences that are proposed by each framework, while in the appendix to the current document, Tables A, B and C provide more detailed descriptions of all of these competences.

10. For descriptions of the original intentions underlying the RFCDC, see Barrett (2020a) and Barrett (2025).
11. The UNECE framework of competences required by educators for teaching ESD (rather than those that need to be acquired by learners) are instead discussed later in this guidance document, in Section 6.6.

Table 1 – The competences proposed by UNESCO's ESD framework, the European Commission's GreenComp framework and the OECD PISA Global Competence framework

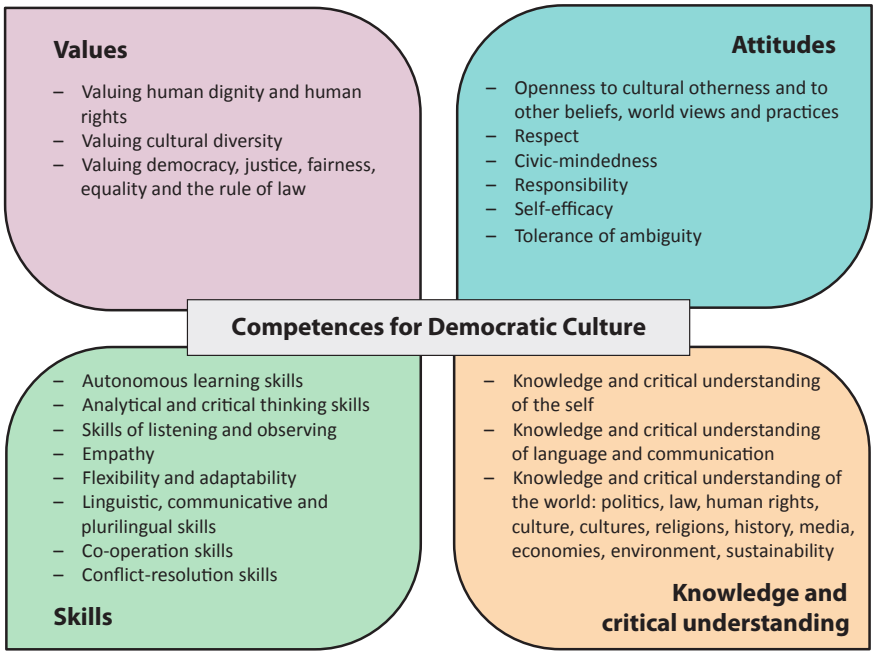
Cross-cutting competences proposed by the UNESCO ESD framework	Competences proposed by the European Commission's GreenComp framework	Competences proposed by the OECD PISA Global Competence framework
▸ Systems thinking competency ▸ Anticipatory competency ▸ Normative competency ▸ Strategic competency ▸ Collaboration competency ▸ Critical thinking competency ▸ Self-awareness competency ▸ Integrated problem-solving competency	**Embodying sustainability values** ▸ valuing sustainability ▸ supporting fairness ▸ promoting nature **Embracing complexity in sustainability** ▸ systems thinking ▸ critical thinking ▸ problem framing **Envisioning sustainable futures** ▸ futures literacy ▸ adaptability ▸ exploratory thinking **Acting for sustainability** ▸ political agency ▸ collective action ▸ individual initiative	**Knowledge** ▸ Knowledge of culture and intercultural relations ▸ Knowledge of socio-economic development and interdependence ▸ Knowledge of environmental sustainability ▸ Knowledge of institutions **Skills** ▸ Reasoning with information ▸ Communicating effectively and respectfully ▸ Perspective taking ▸ Conflict management and resolution ▸ Adaptability **Attitudes** ▸ Openness to people from other cultural backgrounds ▸ Respect ▸ Global-mindedness **Values** ▸ Valuing human dignity and cultural diversity

While the availability of three different frameworks might appear at first glance to be a welcome development for those working in the field of ESD, the fact that there are multiple frameworks functioning in the same area that specify different sets of competences that need to be promoted in learners also creates a dilemma for education policy makers and practitioners. This is because the availability of these multiple frameworks requires a choice to be made, and there is little explicit guidance on how to make such a choice.

However, this dilemma may be readily resolved by using the RFCDC as the basis for ESD, hereinafter referred to as RFCDC-ESD. This is because the RFCDC provides a

common language across all three ESD frameworks. In order to appreciate how the RFCDC can be used for this purpose, we need to consider the specific competences that are proposed by the RFCDC. There are 20 such competences in total (see Figure 1), all of which are judged to be teachable, learnable and assessable. These competences can be used transversally across many different situations, contexts and learning domains (including EDC, HRE and IE). As Figure 1 shows, the 20 competences fall into four broad categories: values, attitudes, skills, and knowledge and critical understanding.

Figure 1 – The 20 competences required for democratic culture and intercultural dialogue proposed by the RFCDC



Reference Framework of Competences for Democratic Culture

If the specific competences proposed by the three ESD frameworks are closely examined (see Table 1 and the tables provided in the appendix), it transpires that all of these competences in fact consist of one or more RFCDC competences. For example, systems thinking competency is defined by UNESCO as the ability to recognise and understand relationships; analyse complex systems; think of how systems are embedded within different domains and different scales; and deal with uncertainty. This competency is composed entirely of three RFCDC competences, namely analytical and critical thinking skills; understanding of economies, environment and sustainability; and tolerance of ambiguity. In other words, if a learner has developed these three RFCDC competences to a high level of proficiency, then they will also have simultaneously developed systems thinking competency. Indeed, all eight of the competences proposed by UNESCO are clearly composed of clusters of RFCDC competences (see Table A in the appendix).

The same applies in the case of the GreenComp framework. For example, supporting fairness is defined in GreenComp as supporting equity and justice for current and future generations and learning from previous generations for sustainability. In the terminology of the RFCDC, this competency is composed of the following cluster of RFCDC competences: valuing justice, fairness and equality; knowledge and critical understanding of history; and knowledge and critical understanding of sustainability. Consequently, once again, if a learner has developed these three RFCDC competences to a high level of proficiency, then they will also have developed the competence of supporting fairness. Furthermore, just as in the case of the UNESCO framework, it transpires that all 12 of the competences proposed by GreenComp are composed of clusters of RFCDC competences (see Table B in the appendix).

In the case of the OECD PISA Global Competence framework, there is an even more direct correspondence between its proposed competences and those proposed by the RFCDC. For example, valuing human dignity and cultural diversity in the PISA framework corresponds directly to the two competences of valuing human dignity and human rights and valuing cultural diversity in the RFCDC. The reason for this direct correspondence is that the OECD drew directly upon the RFCDC in formulating its descriptions of the competences that together comprise the superordinate construct of global competence (OECD 2018: 12, footnote 2). For a full and explicit mapping of the competences proposed by the PISA Global Competence framework onto the competences proposed by the RFCDC, see Table C in the appendix.

It is therefore clear that the RFCDC provides a common language across all of the international competence frameworks that are currently available for use in ESD. In other words, if educators are successful in fostering and promoting all 20 RFCDC competences in learners to a high level of proficiency, then they will be simultaneously promoting all of the competences that need to be promoted according to these other three frameworks.

5.2. The concept of democratic culture

It will be useful for educators to bear in mind, when applying the RFCDC in practice, that the framework has been designed to empower learners to participate in democratic culture – this was the original, fundamental purpose and goal of the RFCDC. The concept of democratic culture was originally developed to capture an important feature of democracy that has often been overlooked. Usually, when we talk about democracy, we immediately think of democratic institutions and processes such as:

- universal voting rights for all adult citizens;
- free, fair and regular parliamentary elections;
- the rule of law, so that all citizens – including those in government – are equally subject to the law;
- freedom of speech and freedom of assembly;
- separation of powers between the executive, the legislature and the judiciary;
- free, independent and pluralistic media.

However, these institutions and processes, while necessary, are not enough for a democracy to function properly. This is because these institutions will not work in

practice unless citizens themselves hold democratic values and attitudes and are willing to engage in democratic practices. In other words, a functioning democracy also requires citizens to have:

- a commitment to using the democratic institutions and processes that are available to them;
- a willingness to express their own opinions and to listen to the opinions of others;
- a conviction that differences of opinion and conflicts must be resolved peacefully;
- a commitment to decisions being made by those who have received the greatest share of the votes or seats in an election;
- a commitment to the protection and rights of minorities – including the protection and rights of those who criticise the policies of the elected government.

The suggestion is that if citizens themselves do not hold democratic values and attitudes and are not willing to engage in democratic practices, then the democratic institutions will not be able to function properly in practice. In other words, citizens must participate in and contribute to a culture of democracy for democratic institutions to work effectively.

In addition, the RFCDC suggests that democratic culture, in culturally diverse societies, requires intercultural dialogue. This is because a fundamental principle of democracy is that the people who are affected by political decisions should be able to express their views when those decisions are being made, and that decision makers should pay attention to those views when making their decisions. Intercultural dialogue is precisely the means through which citizens can communicate their views, needs and concerns to people who have different cultural affiliations from their own. In other words, in the case of culturally diverse societies, intercultural dialogue is absolutely vital for democratic discussion and debate, and for enabling all citizens to contribute to political decision making on an equal basis, irrespective of their specific cultural affiliations. The RFCDC therefore views intercultural dialogue as being crucial for democratic culture and for enabling democracy to function properly.

Finally, the RFCDC proposes that, in addition, a democratic culture requires respect for the dignity and human rights of all individuals within society. All citizens must have their dignity and rights acknowledged and respected both by their fellow citizens and by the state, because these are essential for citizens to feel a sense of inclusion and belonging to the society in which they live. In the absence of such respect, effective intercultural dialogue will not be possible, democratic culture will not prevail, and democratic institutions and processes will not be able to function properly. In short, the RFCDC is based on the presupposition that democracy, democratic culture, intercultural dialogue and human rights are all intrinsically related to one another.

For this reason, the 20 competences that are proposed by the RFCDC are those that are required by citizens to participate in a culture of democracy, intercultural dialogue and the promotion of human dignity and human rights. The framework is innovative in this regard, in that it brings EDC, HRE and IE together within a single overarching framework.

Hence, in applying the RFCDC to ESD, educators should bear in mind not only the fact that they are empowering learners to understand and to take individual and collective action on issues and challenges relating to the environment and sustainability, but also that they are empowering learners to participate in and contribute to a culture of democracy, intercultural dialogue and the promotion of human dignity and human rights.

5.3. Two important conditions that need to be fulfilled in applying the RFCDC to ESD

In Section 5.1, we argued that the RFCDC provides a common language across all three of the international frameworks that are currently used for thinking about and conceptualising ESD. However, in order to use the RFCDC as a foundation for ESD, it is important that two specific conditions be fulfilled.

First, it is crucial that learners are not only limited to developing their proficiency in each of the 20 RFCDC competences across the course of their education. They also need to acquire the ability to use competences in clusters rather than individually in order to meet the needs and demands of situations and contexts involving environmental and sustainability issues and challenges. From the perspective of the RFCDC, it is vital that education does indeed prepare learners to do this. This is because the RFCDC proposes that competent behaviour involves responding in an appropriate and adaptive way to the specific demands, challenges and opportunities that are presented by individual situations. Consequently, depending on the particular situation that is faced by a person, and the specific demands, challenges and opportunities that are presented by that situation, and depending on the specific needs, feelings and motivations of the individual within that situation, different clusters of competences are likely to be activated and used. In addition, any given situation also changes over time. For this reason, an effective and adaptive response requires constant monitoring of the situation and the appropriate ongoing adjustment of the competences being deployed. In other words, from the perspective of the RFCDC, a competent individual activates and uses clusters of competences in a fluid, dynamic and adaptive manner in order to meet the constantly shifting demands, challenges and opportunities that arise in democratic and intercultural situations. Therefore, if educators wish to nurture competent learners, they need to support them in learning how to apply their competences in flexible and fluid clusters. And if learners do acquire this ability, while also achieving high levels of proficiency in the 20 RFCDC competences, then they will simultaneously be acquiring all of the competences that are proposed by the UNESCO, GreenComp and PISA Global Competence frameworks.

A second important condition is that, if the RFCDC is used as the foundation for teaching ESD, then educators will also need to ensure that, among the different forms that civic-mindedness may take,[12] the "global-mindedness" of learners is promoted through the teaching of ESD. This is essential if learners are to be properly equipped to

12. See Council of Europe (2018: Vol. 1, Chapter 6) for a full description of civic-mindedness.

address global environmental and sustainability challenges – the reference community to which their civic-mindedness is applied needs to be the whole of humankind. Merely promoting civic-mindedness in relation to a small-scale local community or a specific social or civic group will not be sufficient for the purposes of ESD.

5.4. The advantages of using the RFCDC as the foundation of ESD

One notable practical advantage of using ESD to promote the development of the 20 RFCDC competences is that educators will be working with a set of competences that are known – from concrete experience in European countries and schools that have already implemented the RFCDC – to be teachable, learnable and assessable. These are also competences that we know can be promoted through suitably designed learning activities using learner-centred, experiential participatory pedagogical methods such as co-operative learning, project-based learning and service learning[13] – methods that are known to produce transformative outcomes in learners (Council of Europe 2018: Vol. 3, Chapter 3).

A further practical advantage of choosing to promote the development of the 20 RFCDC competences in learners is that the RFCDC provides empirically validated scaled descriptors at multiple levels of proficiency for each of the 20 competences (ibid: Vol. 2). These descriptors can be used in ESD for the purposes of curriculum development, pedagogical planning, and formative and summative assessment (ibid: Vol. 3, Chapters 1, 2, 3).

A third advantage is that, if the 20 competences proposed by the RFCDC are used as the foundation for ESD – that is, if ESD is used to promote the development of the 20 RFCDC competences to a high level of proficiency, and if the two important conditions discussed in Section 5.3 above are fulfilled – then, as was noted above, all of the competences proposed by the UNESCO, GreenComp and OECD PISA frameworks will also be developed to a similarly high level of proficiency. This therefore helps to resolve the dilemma faced by education policy makers and practitioners over how to choose a specific competence framework for use in ESD: using the RFCDC is the obvious choice to make, because it enables learners to acquire all of the competences needed to address environmental and sustainability challenges.

In addition to these various practical advantages to basing ESD on the promotion of the 20 RFCDC competences, there is a further major advantage in using the RFCDC in this way. It allows environmental and sustainability issues to be used as an authentic arena for learning about democratic processes, intercultural dialogue and human

13. The term "service learning" refers to a specific pedagogy in which the learner undertakes community service but with the teacher playing an important role as organiser and facilitator in order to ensure that the experience enables a set of specific learning outcomes to be achieved. Crucially, service learning not only involves the learner engaging in a meaningful community service activity that has been designed to enhance their competences; it also requires the learner, after the period of service has been completed, to reflect on the service, to evaluate how the experience has helped them to achieve specific learning outcomes, and consider how it has enabled them to make a contribution to solving a particular societal or environmental challenge (see Section 6.2.5 below for further discussion).

rights, while simultaneously providing support for learners in taking practical action as citizens on environmental and sustainability issues.

It is for this reason that significant synergies will emerge between ESD and citizenship education. ESD is substantially enriched by enabling it to address issues of how and why learners can and should take both individual and collective democratic action as citizens in order to achieve beneficial societal and political goals related to the environment and sustainability. This enables ESD to encompass notions of active citizenship, democratic processes, human rights, social justice, equity and the well-being of the whole of humankind, as well as environmental science.

Reciprocally, citizenship education is significantly enriched through the use of authentic learning activities that are focused on the environment and sustainability, with which we know learners today are deeply involved. Using an authentic arena for learning about democratic citizenship will incentivise and motivate learners, which in turn will enhance their commitment to the learning process and boost the educational outcomes that they achieve.

Furthermore, while many people believe that what makes ESD challenging is the complexity of environmental and sustainability issues and challenges, this belief may be re-examined. Educational institutions can and often do address many complex issues arising in contemporary societies very successfully (e.g. cultural diversity, racial and ethnic prejudice, bullying and cyberbullying). The main challenge is that ESD involves confronting controversial issues as well as people's conceptions of what constitutes a "good life". These matters need to be addressed if the current environmental crisis is to be tackled successfully. The RFCDC is particularly well-suited to enable educators to address these matters.

5.5. Basing ESD on the 20 RFCDC competences

However, if education policy makers and practitioners turn to the three volumes of the RFCDC for guidance and advice on applying the RFCDC to ESD, they will find limited explicit references to environmental and sustainability issues, for instance in the descriptions of the 20 competences outlined in Volume 1 of the RFCDC (other than in the description of knowledge and critical understanding of economies, environment and sustainability) (ibid.: Vol. 1). The reason for this is that the RFCDC was not designed with ESD in mind, but as a competence-based framework for EDC, HRE and IE. The emphasis of the descriptions of the competences in Volume 1 is therefore on aspects of the 20 competences that are most directly relevant to these three pedagogies, rather than to ESD.

In order to demonstrate how the 20 competences also apply to ESD, the following text unpacks and describes each of the 20 RFCDC competences in relation to environmental and sustainability issues specifically. Education policy makers and practitioners who wish to apply the RFCDC to policy and practice in ESD (RFCDC-ESD) are advised to refer to the following descriptions of the 20 competences, rather than those that are available in Volume 1 of the RFCDC.

How the 20 RFCDC competences relate to environmental and sustainability issues

VALUES

Valuing human dignity and human rights

- Valuing human dignity and human rights, including valuing people's right to a clean, healthy and sustainable environment which is integral to the full enjoyment of human rights by present and future generations, together with the concomitant valuing of the natural environment and sustainability
- Appreciation of the need for an ethical approach to the natural environment and sustainability in order to protect the dignity and human rights of all people, including the dignity and rights of future generations

Valuing cultural diversity

- Valuing diverse cultural perspectives, including the perspectives of marginalised, vulnerable and Indigenous peoples and their heritage and ways of knowing, especially in relation to the environment, sustainability and the well-being of future generations
- Valuing the preservation of cultural heritage, based on a recognition of its importance for future generations

Valuing democracy, justice, fairness, equality and the rule of law

- Valuing democratic processes and procedures, and recognising the importance of citizen engagement with political decision making
- Valuing social justice, inclusivity, social responsibility, fairness and equality in addressing environmental, social and economic issues, based on the recognition that sustainable development should benefit all members of the global community and ensure the human rights of all
- Valuing intergenerational equity
- Valuing efforts using democratic processes to challenge systemic inequalities and inequities that hinder sustainable progress

ATTITUDES

Openness to cultural otherness and to other beliefs, world views and practices

- Openness to other cultural perspectives, including perspectives on sustainability issues held by marginalised, vulnerable and Indigenous peoples
- Willingness to consider other perspectives on sustainability and a range of alternative futures
- Willingness to learn from others

Respect

- Respect and positive regard for biodiversity and for the intrinsic value of nature, the natural environment and all living systems, including both human and non-human beings as well as ecosystems

- Respect and positive regard for other people as equal human beings who share a common dignity and have exactly the same set of human rights and freedoms irrespective of their particular cultural affiliations, beliefs, opinions, lifestyles or practices
- Positive regard and esteem for the heritage, beliefs, opinions, lifestyles and practices of other people – including those of marginalised, vulnerable and Indigenous peoples – as long as these do not undermine or violate the dignity, human rights or freedoms of others

Civic-mindedness

- A feeling of belonging to and identification with the global community, and a sense of solidarity with other people in the global community – sometimes also called "global-mindedness"
- A sense of civic duty in relation to the natural environment, biodiversity and sustainability; a willingness to take a position on sustainability issues; and a willingness to contribute actively to the protection and preservation of the natural environment, biodiversity and sustainability, including reducing one's carbon footprint
- A willingness to engage with, and to be involved in, problem solving in local and global communities in order to mitigate against climate change and environmental degradation and promote sustainable development
- A willingness to engage in both individual action and collective action with others in order to address local and global sustainability challenges and to contribute to collective well-being and a sustainable future for the whole of the planet and humankind

Responsibility

- The adoption of a reflective and thoughtful approach towards one's actions and the possible environmental consequences of those actions
- The identification of one's own duties and obligations in relation to the environment, biodiversity and sustainability, based on the values specified by the RFCDC
- A sense of personal responsibility for environmental stewardship at both local and global levels
- A willingness to reduce one's ecological footprint and to minimise harm to the environment
- A willingness to hold oneself accountable for the consequences and impact of one's actions on the environment and sustainability

Self-efficacy

- A positive belief in one's own ability to undertake successful individual and collective action, and to navigate the political system, in order to achieve a sustainable future for the planet

Tolerance of ambiguity

- Acknowledgement that sustainability problems can be conceptualised from a variety of different perspectives, acceptance of their inherent complexity and uncertainty, and a willingness to undertake constructive action despite the uncertainty that might be entailed

SKILLS

Autonomous learning skills

- The abilities to research and develop innovative actions to advance sustainability

Analytical and critical thinking skills

- The abilities to:
  - interpret and evaluate arguments and evidence related to sustainability
  - apply analytical and evaluative skills in order to assess complex sustainability issues and relationships
  - evaluate existing assumptions, norms, practices and opinions
  - evaluate how people's world views, preconceptions, perceptions, beliefs, values, behaviours and interactions with others align with sustainability values, including those of marginalised, vulnerable and Indigenous peoples
  - evaluate sustainability issues realistically in terms of the scale, complexity and difficulties of the challenges that they entail
  - evaluate information, arguments and claims (including disinformation, fake news and conspiracy theories) on the basis of both internal consistency and consistency with the available evidence, and use scientific evidence to assess arguments related to the roots and consequences of and solutions to the problems of climate change and sustainability
  - analyse and evaluate mass media and digital media content regarding sustainability issues, including the use that is made of scientific evidence
  - identify underlying causes of sustainability problems and analyse how elements interact within and between systems
  - evaluate possible, probable and desirable futures, and the steps that need to be taken in order to achieve a preferred sustainable future
  - actively construct, develop, analyse and evaluate novel and innovative ideas, methods and actions that can advance sustainability at both local and global levels
  - assess the consequences of actions
  - assess the risks, costs and benefits that are associated with different courses of action and inaction
  - apply the precautionary principle
  - develop informed, viable, inclusive and equitable ethical solutions to sustainability issues and problems
  - make informed decisions regarding sustainability

Skills of listening and observing

- The abilities to:
  - listen to the viewpoints of others
  - attend to subtleties of meaning and to what might be only partially said or left unsaid in relation to sustainability issues
  - attend to the relationship between what is being said and the social, political and media context in which it is said

Empathy

- The abilities to:
  - understand, relate to and be sensitive to other people's thoughts, beliefs, feelings, needs and actions
  - experience feelings of compassion, concern and care for living systems that are endangered due to the activities of humankind and for those who are especially vulnerable to the consequences of climate change and environmental degradation and destruction

Flexibility and adaptability

- The abilities to adjust one's habitual ways of thinking, to embrace innovation and manage transitions in complex sustainability situations in the face of uncertainty and to adapt to new and emerging sustainability challenges

Linguistic and communicative skills

- The abilities to:
  - express one's own meanings in a range of situations
  - express oneself confidently and without aggression
  - effectively convey sustainability concepts
  - engage stakeholders
  - advocate for sustainable practices through various media

Co-operation skills

- The abilities to:
  - work effectively in diverse groups
  - promote active participation
  - build consensus and compromise within groups
  - negotiate and agree sustainability values, principles, goals and targets
  - leverage collective strengths to address sustainability challenges
  - devise and implement innovative actions together with others in a co-ordinated manner in order to further sustainability at both the local and the global levels
  - take collective action in support of sustainability

Conflict-resolution skills

- The abilities to:
  - address, manage and resolve conflicts and disagreements in a peaceful way
  - encourage mutual understanding
  - negotiate solutions to sustainability problems in contexts of conflicts of interest and trade-offs, identifying common ground on which agreement concerning sustainability issues can be built

KNOWLEDGE AND CRITICAL UNDERSTANDING

Knowledge and critical understanding of the self

- Knowledge and critical understanding of:
  - one's own perspectives on the world and the values and norms that underlie these perspectives
  - one's own position and role in local and global contexts
  - one's own potential for action in support of sustainability and how one can take both individual action and collective action with others in order to advance sustainability
  - the need for self-care and working in solidarity with others in addressing the challenges of sustainable development

Knowledge and critical understanding of language and communication

- Knowledge and critical understanding of:
  - the socially appropriate verbal and non-verbal communicative conventions that operate in the language(s) that one uses
  - the social impact and effects on others of different communication styles
  - how to use language effectively to advocate for sustainable practices and to mobilise others to take action in support of sustainability

Knowledge and critical understanding of the world, including:

(a) Politics, law and human rights

- Knowledge and critical understanding of:
  - democratic processes and political systems
  - international political and legal institutions and governance, especially the role of international bodies in addressing issues of sustainability, and supporting peoples who are vulnerable to the effects of climate change and environmental degradation
  - international and domestic laws, regulations and standards related to the green transition
  - the diverse ways in which citizens can participate in public deliberations and decision making in order to influence political decisions and public policies
  - how to advocate for effective action in support of sustainability
- Knowledge and critical understanding of:
  - laws related to nature, the environment and the protection of ecosystems and biodiversity
  - how laws are made and shaped, and adjusted to changes in society, including in response to climate change
  - the legal obligations of states, governments, corporations and commercial actors in relation to the natural environment and sustainability
- Knowledge and critical understanding:
  - that human rights are grounded in the dignity that is inherent in all human beings
  - that human rights are universal, inalienable, interdependent and indivisible, and that everyone not only has human rights but also has a responsibility and duty to respect the rights of others, irrespective of their national origins, ethnicity, race, religion, language, age, sex, gender, political opinion, birth, social origin, property, disability, sexual orientation or other status

- that the effects of climate change do not affect all people and communities equally
- of the legal obligations of states, governments, corporations and commercial actors in relation to human rights
- that a clean, healthy and sustainable environment is integral to the full enjoyment of human rights by present and future generations

(b) Culture, cultures and religions

- Knowledge and critical understanding of:
  - how people's cultural affiliations shape their world views, preconceptions, perceptions, beliefs, values, behaviours and interactions with others, and how these can change over time
  - how power structures, discriminatory practices and institutional barriers within and between cultural groups operate to restrict opportunities for disempowered individuals, including members of marginalised, vulnerable and Indigenous groups and young people
  - diverse cultural perspectives, including the ways of knowing held by marginalised, vulnerable and Indigenous peoples, especially as these relate to the environment and to sustainability

(c) History

- Knowledge and critical understanding of:
  - the fluid nature of history and of how interpretations of the past vary over time and across cultures
  - the processes of historical investigation, in particular of how facts are selected and constructed, and how they become evidence in the production of historical narratives and arguments that are used to explain and justify events and actions in the contemporary world
  - interpretations from different perspectives of how natural disasters have affected humankind in the past; how humans have responded to such disasters in the past; and how human responses have influenced the consequences of those disasters
  - diverse narratives from different perspectives about the political, social and economic forces and factors that have shaped the contemporary world, including contemporary approaches to environmental, biodiversity and sustainability issues
  - how the past may be understood and interpreted in light of the present with a view to the future, and the relevance of the past to concerns and issues in the contemporary world, especially concerns and issues relating to the environment, biodiversity and sustainability

(d) Media

- Knowledge and critical understanding of:
  - the processes through which actors in the mass media and digital media select, interpret and edit information before transmitting it for public consumption, and the biases that can arise from these sources in the presentation of information about the environment, biodiversity and sustainability
  - the possible motives, intentions and purposes that the producers of content, images, messages and advertisements for the mass media and digital media may have, especially producers who are in receipt of funding from environmentally unfriendly economic entities

- the possible motives, intentions and purposes of those who choose to reproduce and share content, images, messages and advertisements relating to the environment, biodiversity and sustainability
- the distinctions between misinformation, disinformation and malinformation, and how economic actors sometimes use disinformation and malinformation in order to advance their own vested interests[14]
- the effects that mass media and digital media content can have on individuals' judgments and behaviours relating to the environment, biodiversity and sustainability
- how political messages and propaganda relating to the environment, biodiversity and sustainability in the mass media and digital media can be identified, and how individuals can guard and protect themselves against the effects of these communications
- how the mass media and digital media can be harnessed effectively to advance the cause of sustainability, advocate for sustainable practices and mobilise others to take action in support of sustainability

(e) Environment, economies and sustainability

- Knowledge and critical understanding of:
  - the fact that human beings are part of nature
  - environmental science, including knowledge and critical understanding of scientific findings concerning:
    - the climate, ecological systems, biodiversity and natural resource management
    - the impact of carbon emissions and how the post-carbon transition may be achieved
    - the need to restore and regenerate healthy and resilient ecosystems and the importance of maintaining ecological balance
    - the factors that can have an impact on the natural environment, especially the factors associated with human activities, and their consequences for sustainability
    - the risks associated with environmental damage, current environmental challenges and the need for environmental protection, sustainability and post-carbon economies
  - the impact that personal choices and patterns of consumption may have in other parts of the world and the need for responsible consumption and sustainable lifestyles
  - the interconnectedness and interdependence between social, economic, political and environmental systems, especially when viewed from a global perspective, and the implications for sustainability
  - the moral dimensions and ethical issues associated with globalisation and sustainability, including climate justice

14. Misinformation involves sharing defective information but without intending to cause any harm; disinformation involves sharing deceptive information knowingly and deliberately in order to achieve particular goals through the deception; and malinformation involves sharing damaging but genuine information, usually by moving information that was intended to remain private into the public sphere (Kivinen et al. 2022).

5.6. Conclusions

This section has explained why ESD should be based on the 20 RFCDC competences, with significant advantages for both educators and learners alike. Such an approach has many practical advantages, as well as the major advantage of enabling ESD and citizenship education to substantially enrich each other's outcomes. In the next section of this guidance document, we provide some examples of how this approach to ESD may be implemented in practice.

Part II

Practical applications and recommendations

Section 6 – Applying the RFCDC to ESD in practice

This section explores the practical application of the RFCDC to ESD. It examines different curricular implementation strategies, including cross-curricular integration, embedding ESD within citizenship education and incorporating ESD within science education. It also discusses effective pedagogical methods. These include: educators modelling sustainability values, attitudes and practices in the classroom; co-operative learning; inquiry-based learning; project-based learning; service learning; supporting learners' critical reflection; outdoor learning, field work and volunteerism; and place-based learning. The need for educators to teach controversial issues is also discussed. The various methods that can be used for formative and summative assessment when implementing ESD based on the RFCDC are also examined. These include, *inter alia*, dialogue-based assessment, activity-based self-assessment, project-based assessment, and reflective journals, portfolios and e-portfolios.

Section 6 also highlights the importance of aligning curriculum, pedagogy and assessment to ensure coherence in developing students' values, attitudes, skills, knowledge and critical understanding and emphasises the use of a whole-school approach (WSA) for fostering learners' sustainability and democratic competences. Teacher education is addressed, examining the need for systematic training and capacity building for educators to effectively implement ESD based on the RFCDC. The section stresses the importance of supportive policies, adequate teaching and learning resources, and institutional commitment for embedding sustainability and democratic competences in educational practices successfully. Learners' digital literacy, and the need to integrate digital resources into the teaching of ESD based on the RFCDC, is also examined. Finally, this section addresses the importance of preparing students for green jobs by equipping them with the necessary competences for sustainability-driven careers. Throughout this section, case examples are used to illustrate how the various practices that are being discussed can be implemented in real-world educational settings, providing insights into how successful implementation can be achieved.

In this section we examine a range of suggestions to keep in mind when planning for and implementing ESD based on the RFCDC. Not all of these suggestions will be practicable and immediately feasible for policy makers and educators in all educational settings. Opportunities and support vary depending on the national and regional education system, school and classroom context, and decisions concerning implementation need to take the prevailing conditions into account. However, it should be possible to build on the strengths of existing ESD curricula and practices and to extend and improve them in accordance with the principles presented in this section in ways that are relevant and practical.

6.1. Curricular implementation, ensuring that ESD is based on the RFCDC

Incorporating ESD based on the RFCDC (RFCDC-ESD) into the curriculum is a multifaceted task that requires careful consideration and strategic planning, but always depends on local context and available resources. To encourage the comprehensive incorporation of all 20 RFCDC-ESD competences within the curriculum, we describe three approaches.

6.1.1. Embedding RFCDC-ESD across the entire curriculum through the use of a cross-curricular approach

This involves integrating RFCDC competences and sustainable development principles into all school subjects and grade levels, creating a cohesive learning experience that permeates the entire curriculum.

For policy makers, the focus would then be on making RFCDC-ESD competences clearly visible across the curriculum, providing a cohesive framework that informs subject-specific goals, methods and assessment strategies. For educators, the emphasis shifts to interpreting and recognising RFCDC-ESD themes within their subjects and identifying ways to bring these themes into their daily teaching practices.

This holistic approach ensures that students consistently encounter and engage with these concepts in diverse contexts, fostering deeper understanding and application. It also helps to reinforce the interconnectedness of these competences throughout their education. All school subjects can lend themselves directly to the themes of sustainability and global citizenship.

Policy makers should ensure that each subject's curriculum framework links subject competences explicitly with RFCDC-ESD values, attitudes, skills, and knowledge and critical understanding. For example, in mathematics, curriculum documents can explicitly outline objectives related to analysing data for environmental and societal challenges. Science standards can incorporate learning outcomes that emphasise students' engagement with global issues like climate change and clean energy. Social studies and citizenship education can include goals that foster students' understanding of civic responsibility and democratic action. By making these themes visible across subject frameworks, curriculum designers provide a solid foundation for educators to implement RFCDC-ESD effectively.

Educators should consider how to bring RFCDC-ESD competences into classroom activities across subjects. For example:

- in mathematics, students might calculate the carbon footprint of different energy sources or use statistical methods to study population growth and resource use;
- in science, lessons can include explorations of local environmental issues and discussions on global concerns such as pollution and water quality;
- in language arts, students might read and discuss literature on democracy and sustainability, reflecting on the ethical dimensions of environmental policies;
- in foreign language classes, examining the culture of other countries can promote empathy, openness and an appreciation for cultural diversity.

Case example 1 – Embedding RFCDC-ESD using a cross-curricular approach[15]

Keywords: cross-curricular collaboration, environmental sustainability, civic engagement, community action, interdisciplinary learning

The UNESCO Associated Schools Network (ASPnet) promotes citizenship education and sustainable development through various initiatives across the world. The schools implement a cross-curricular project where students from social studies, science and language arts collaborate to address local environmental issues. The students study the local ecosystem and learn about the effects of pollution and climate change under the guidance of their science teachers. In social studies, students explore democratic processes and the importance of community involvement in implementing sustainable solutions. Language arts classes focus on developing students' linguistic and communicative skills to effectively present their findings and proposals. Students then organise a series of community actions, including a local clean-up campaign and a tree-planting initiative in a nearby park. They also create educational materials to raise awareness about environmental conservation and present their proposals to the local government. This project not only enhances their understanding of environmental science and civic engagement but also equips them with practical skills related to the societal impacts of scientific findings.

Interdisciplinary cross-curricular projects can serve as practical examples for both policy makers and educators to see RFCDC-ESD principles in action. For example, a project might involve the design and creation of a sustainable school garden, where students apply their knowledge from biology, geography, economics and even art. In such a project, students can learn not only about the importance of biodiversity and food sustainability but also about the economic and social dimensions of sustainable agricultural practices, reflecting the interconnectedness of sustainability and democratic citizenship. Interdisciplinary projects allow students to draw connections between different subjects and global issues. By working together with colleagues from various disciplines, teachers can design lessons and activities that help students

15. See UNESCO Associated Schools Network, available at https://unesco.org/en/aspnet, accessed 18 May 2025.

see the interconnectedness of topics such as climate change, resource conservation and social justice. This approach enriches the students' learning experience and also prepares them to think critically and creatively about the complex challenges facing the world today.

Interdisciplinary projects, such as designing sustainable solutions or community initiatives, allow students to practise competences such as analytical and critical thinking skills, communicative skills and co-operation skills, while understanding the ethical dimensions of sustainability based on the valuing of human dignity, democracy, justice and fairness. This multi-competence integration enriches the learning process, allowing students not only to acquire knowledge but to embody the values, attitudes, skills, knowledge and critical understanding necessary for democratic citizenship and sustainability.

6.1.2. Embedding RFCDC-ESD within the curriculum for citizenship education or a similar social science subject

This can also contribute to developing students' competences for sustainability, provided that suitable pedagogies are employed. However, to fully address all 20 RFCDC-ESD competences, particularly those requiring knowledge and critical understanding of environmental science, collaboration with natural science educators is essential. This interdisciplinary approach ensures a more comprehensive implementation of RFCDC-ESD.

For policy makers, the focus should be on ensuring that RFCDC-ESD themes are clearly integrated within the frameworks of citizenship education and social science subjects, aligning these subjects with the broader goals of sustainability and democratic engagement. For educators, the emphasis should be on applying suitable pedagogies to foster students' ability to engage with complex environmental, social and economic challenges and their roles as active citizens.

Curriculum frameworks for citizenship education should make clear connections between democratic principles and sustainability, ensuring that the competences related to RFCDC-ESD are embedded in the subject's aims and learning outcomes. Policy makers should highlight the importance of equipping students with both the knowledge and skills to navigate the challenges of sustainability within a democratic context. This can be done through curriculum documents that emphasise themes like environmental sustainability, social justice and democratic engagement.

Educators can make these connections tangible in the classroom by engaging students in project-based learning on local sustainability initiatives. For example, students might collaborate with local governments or community organisations on waste management and energy conservation projects. This hands-on approach helps students understand the practical implications of sustainability while practising democratic engagement. By conducting research, developing action plans and presenting findings to their community, students connect theoretical knowledge with real-world applications, fostering deeper understanding of their roles as active citizens.

Educators can use debates as a pedagogical tool to develop students' ability to reason, analyse and communicate their ideas. For instance, students could engage in debates about the effects of climate change policies on local communities, thereby connecting

global sustainability issues with local governance. Role-playing simulations, such as Model United Nations programmes, are another excellent method. In these simulations, students represent different countries, debate policies and draft resolutions on global sustainability challenges, like those outlined in the SDGs. Through these activities, students develop not only their democratic competences but also their understanding of the complexities of international co-operation and conflict resolution.

By concentrating RFCDC-ESD in this manner, educators can ensure that students gain a comprehensive understanding of these crucial concepts within a personally relevant and contextualised framework.

For policy makers, it is essential to include opportunities for critical discussions and problem solving in the curriculum. Citizenship education can be enhanced through debates and role-playing simulations that address topics such as environmental regulations, urban planning or climate change policies. These activities not only help students develop analytical, critical thinking and communication skills but also give them the chance to explore the ethical and practical implications of sustainability.

Case example 2 – Embedding RFCDC-ESD within citizenship education[16]

Keywords: citizenship education, sustainability and climate change education, civic competences

In England, Citizenship is a distinct subject within the National Curriculum and plays a crucial role in delivering sustainability and climate education. The Department for Education's Sustainability and Climate Change Strategy emphasises integrating these topics across various subjects, including Citizenship, Science and Geography. The Strategy outlines four strategic aims to be achieved by 2030.

- "Excellence in education and skills for a changing world: preparing all young people for a world affected by climate change through learning and practical experience.
- Net zero: reducing direct and indirect emissions from education and care buildings, driving innovation to meet legislative targets and providing opportunities for children and young people to engage practically in the transition to net zero.
- Resilient to climate change: adapting education and care buildings and systems to prepare for the effects of climate change.
- A better environment for future generations: enhancing biodiversity, improving air quality and increasing access to, and connection with, nature in and around education and care settings."

Citizenship education contributes significantly to the first aim by equipping students with the knowledge and skills necessary to navigate and address climate-related challenges. Through citizenship education, students explore topics such as social justice, human rights and the responsibilities of global citizenship, all within the context of sustainability and climate change.

16. See Department for Education (2023).

By integrating the RFCDC-ESD framework within the citizenship education or social science curriculum, educators can create targeted learning experiences that equip students with a broad range of competences, including analytical and critical thinking skills, co-operation skills and value-based ethical decision making. For policy makers, it is crucial to ensure that the curriculum is structured to allow for these experiences, making sustainability and democratic engagement central to the educational goals. Educators, on the other hand, can implement these strategies in the classroom, equipping students with competences such as analytical and critical thinking, co-operation and ethical decision making based on democratic values. This approach prepares students to address complex sustainability challenges such as climate change, resource management and social justice by fostering a comprehensive set of competences that contribute to both democratic participation and sustainability.

6.1.3. Embedding RFCDC-ESD within the science curriculum

This represents a practical step forward in settings where cross-curricular or citizenship education-focused approaches could face implementation challenges. This strategy leverages the natural alignment between scientific inquiry and sustainable development, requiring the incorporation of democratic competences into subjects such as environmental science, biology, physics and chemistry. If this approach is adopted, educators need to be diligent in ensuring that all 20 RFCDC competences are promoted in their students. This can be achieved through interdisciplinary projects, collaborative experiments and discussions that are then used to highlight the societal implications of scientific findings and presentations of the findings to wider audiences. For policy makers, the goal should be to ensure that RFCDC-ESD competences are explicitly integrated within science standards and learning outcomes, aligning science education with broader educational goals of sustainability and civic engagement.

To support the integration of RFCDC-ESD, curriculum frameworks for science should highlight competences such as analytical thinking, civic-mindedness and ethical decision making within science education. Policy makers can emphasise a Science, Technology and Society (STS) approach, which connects scientific understanding with social and ethical questions, encouraging students to consider how science affects communities and the environment. The interaction between science and society is mutual, aligning with how social factors shape scientific and technological developments. Curriculum standards might include objectives like understanding renewable energy, analysing the impact of pollution or exploring environmental justice. This framework equips educators with a foundation to embed RFCDC-ESD competences through activities that highlight the broader societal implications of science. Although this approach to the implementation of RFCDC-ESD requires careful planning, it provides a possible pathway for embedding it in contexts where broader curricular reforms are less feasible.

Educators should apply practical activities and projects that allow students to engage with RFCDC-ESD themes directly. For instance:

- Collaborative projects can help to promote students' analytical and critical thinking skills, communicative skills, listening skills, empathy and conflict-resolution skills, and presenting the results of such projects to external audiences such as local decision makers and news media can enhance students' communicative skills, civic-mindedness, responsibility, and knowledge and critical

understanding of media. Students will also need to learn how they themselves can take action as citizens to address environmental and sustainability challenges;

- Using an STS approach, educators can explore renewable energy technologies (e.g. solar, wind) within physics lessons, discussing their social, economic and environmental implications. Instead of only focusing on the technical aspects of how these technologies work (e.g. understanding the principles of energy conversion, mechanics or electricity), teachers could extend the discussion to examine the societal implications of adopting these technologies. In such a lesson, students could explore questions such as:
  - How does the transition to renewable energy sources affect local communities?
  - What are the ethical considerations related to resource use, such as the rare metals required for solar panels or wind turbines?
  - How do political decisions at national or global levels influence the development and deployment of these technologies?
  - What are the economic, social and environmental trade-offs of different energy solutions?
  - Beyond the environmental benefits, what social benefits can energy communities bring?

Students could then engage in group debates in which they represent different stakeholders (e.g. government officials, environmental activists, energy company representatives and local citizens). This activity fosters not only scientific understanding but also analytical and critical thinking skills, communicative skills, empathy and values, as students navigate complex social, environmental and ethical issues. Furthermore, students could develop proposals advocating for renewable energy projects in their own communities, addressing both the scientific and social aspects of such initiatives. Presenting these proposals to local policy makers or community groups could deepen their civic-mindedness, understanding of civic engagement and active citizenship. This STS-driven project helps students understand that science is not isolated from society but intricately connected to real-world issues. It empowers them to consider how scientific and technological advancements can be leveraged for the common good, while also fostering democratic values and participatory skills essential to citizenship education.

Both policy makers and educators can benefit from seeing interdisciplinary projects as a means of embedding RFCDC-ESD within the science curriculum. For example, biodiversity projects could involve students in documenting plant and animal species and analysing human impact on ecosystems. Students might present conservation proposals to local authorities, applying scientific knowledge to real-world advocacy and deepening their engagement in civic processes.

For policy makers, science curriculum frameworks should encourage explicit connections between scientific skills and RFCDC-ESD competences. For example, physics and environmental science lessons on renewable energy can include objectives related to critical thinking, values and responsibility. This allows educators to incorporate broader educational goals seamlessly. Educators, meanwhile, can emphasise how scientific inquiry relates to social action, encouraging students to apply their knowledge through community projects or partnerships with environmental organisations.

For both policy makers and educators, all Science, Technology, Engineering and Mathematics (STEM) subjects offer rich opportunities for RFCDC-ESD integration. Policy makers can support this by ensuring that STEM standards incorporate democratic and sustainability values, such as collaborative problem solving in technology and engineering. Educators can then implement project-based learning activities like designing solar-powered devices or organising debates on renewable energy. More generally, all STEM subjects provide opportunities to integrate RFCDC-ESD competences through interdisciplinary approaches. Students could work on projects that require them to apply scientific knowledge, technological skills and engineering principles to develop sustainable solutions. For example, project-based learning on renewable energy would provide an excellent opportunity. Students could design and build solar-powered devices, analyse their efficiency and explore the social and environmental implications of renewable energy technologies. They could then present their findings in a mock town hall meeting. They could also engage in a democratic process through discussion and voting on their conclusions. This could be conducted by having a classroom debate on the pros and cons of various sources of renewable energy, thus creating some knowledge for the students regarding different opinions and why it is so vital to build consensus. Students could also have an opportunity to work with local environmental agencies so that they learn the importance of civic duty and community action, both of which are crucial aspects of civic-mindedness. These activities provide hands-on learning experiences that highlight civic duty and consensus building, essential to fostering civic-mindedness and community action.

By focusing on these distinct needs – integrating RFCDC-ESD competences within curriculum standards for policy makers and providing practical applications for educators – this approach ensures that science education not only builds science skills, knowledge and understanding but also instils values, attitudes and skills critical for active, responsible citizenship and sustainability.

Case example 3 – Embedding RFCDC-ESD within environmental science[17]

Keywords: environmental science, sustainable development, democratic competences

Environmental science provides a direct connection to sustainable development, making it an ideal subject for embedding RFCDC-ESD. Students can engage in projects that explore local and global environmental issues, such as climate change, pollution and biodiversity loss. A high school in North Macedonia, SOU Orde Copela-Prilep, has developed a year-long project on climate change. Students research local climate impacts, conduct experiments to understand greenhouse gases and create action plans to reduce their school's carbon footprint. This project enhances students' scientific understanding and fosters competences in analytical and critical thinking skills, co-operative skills and civic-mindedness. The project increases student awareness and action on climate issues, illustrating how scientific education can be effectively integrated with democratic and sustainability competences.

17. SOU Orde Copela-Prilep, available at www.souordecopela.edu.mk, accessed 18 May 2025.

6.1.4. Extracurricular activities supporting RFCDC-ESD

In addition to the formal curriculum, RFCDC-ESD can also be implemented through extracurricular activities, which can offer valuable opportunities for students to deepen their understanding of sustainability and environmental stewardship through practical, hands-on experiences. For example, science clubs and environmental groups could encourage students to take leadership roles in creating school gardens, organising school-wide waste management systems and initiating community-wide clean-up campaigns. By actively planning and co-ordinating these projects, students not only deepen their understanding of ecological principles but also learn how to engage in democratic decision-making processes by working with peers, teachers and local authorities to drive environmental action. Alternatively, collaborative activities with local organisations focused on citizen science could involve students participating in monitoring local wildlife or pollution levels, or climate change research. Service-learning projects could be designed around these collaborations, where students identify community needs – such as monitoring air quality or water pollution – and work on solutions in partnership with local NGOs or municipal bodies. This empowers students to act as engaged citizens, learning how to influence positive change in their surroundings.

A science fair competition could be transformed into a platform for student-driven innovation in sustainability projects, where they are encouraged to develop actionable solutions to pressing environmental challenges. Debate competitions on environmental policies could be designed to empower students to engage in critical discussions on climate justice and policy reform, fostering the democratic skills of argumentation, advocacy and respect for diverse viewpoints.

Field trips and science camps could further develop students' leadership by engaging them in hands-on conservation work or community-based sustainability projects, such as organising tree-planting initiatives, building rainwater harvesting systems or volunteering at renewable energy sites. These experiences encourage students to act not only as learners but as active citizens who contribute to societal change through direct involvement. Students could also engage in service-oriented projects during these excursions, such as volunteering at conservation centres or helping to restore local habitats. Extracurricular activities offer a powerful way for students to not only learn about sustainability but also put citizenship into practice. An additional motivational factor is the opportunity for students to hear from active peers and learn from their experiences; bringing in young people from local communities to share their work can inspire students and reinforce the impact of these initiatives. Through leading community projects, participating in service learning and spearheading sustainability initiatives, students build many of the competences essential to RFCDC-ESD. Beyond extracurricular activities, non-formal education offers additional avenues for embedding RFCDC-ESD through immersive and experiential learning opportunities. Non-formal education refers to organised activities outside the structured school curriculum and often involves partnerships with external institutions like museums, environmental education centres and nature reserves.

For instance, museums offer workshops and exhibitions on topics such as climate change, biodiversity and sustainable technologies. Students visiting these institutions can engage with interactive displays, attend expert-led discussions and participate

in simulations that enhance their understanding of global challenges. Such experiences help students develop critical thinking and analytical skills while encouraging them to consider diverse perspectives.

Similarly, environmental education centres provide hands-on activities like renewable energy demonstrations, conservation practices and ecological restoration. These centres enable students to directly apply ecological concepts in practical contexts. By working collaboratively on projects, students practise democratic competences like co-operation and problem solving.

Nature trails and outdoor learning programmes offer a unique way to connect students with their local environment. Guided activities such as wildlife observation, ecosystem monitoring and habitat restoration allow students to experience sustainability challenges first-hand. These experiences not only strengthen their ecological awareness but also build their empathy and respect for nature, fostering a sense of environmental responsibility.

In addition, citizen science projects organised by local organisations can empower students to contribute to ongoing environmental research. Whether monitoring water quality, tracking wildlife populations or collecting climate data, students gain practical insights into scientific processes and their relevance to societal issues.

By integrating these non-formal education activities with school initiatives, educators can create a holistic learning environment that enhances students' ability to address sustainability challenges and practise democratic principles.

Case example 4 – The Scouts CARE project[18]

Keywords: extracurricular activities, community engagement, sustainability education, democratic decision making, active citizenship

The Scouts CARE project, initiated by the Marsa Scout Group in Malta, is a non-profit awareness campaign focused on environmental stewardship and community engagement. The acronym CARE stands for "Cultivating Action through Responsible Education", reflecting the project's mission to educate and involve the community in sustainable practices. Through various activities, Scouts CARE encourages young people to take leadership roles in environmental initiatives, such as organising clean-up campaigns and promoting waste management systems. These efforts provide practical, hands-on experiences that deepen participants' understanding of sustainability and foster democratic decision-making skills. By collaborating with local authorities and organisations, Scouts CARE empowers young individuals to become active citizens committed to positive environmental change. Additionally, Scouts CARE hosts events and debate forums on sustainability issues, empowering members to discuss topics like climate policy and justice, building competences in advocacy, critical thinking and public speaking. Field trips and conservation camps further deepen this engagement, with Scouts participating in projects like rainwater harvesting and coastal restoration. By leading these initiatives, Scouts gain a sense of agency and commitment to societal change, aligning well with RFCDC-ESD's focus on active, responsible citizenship.

18. See The Scout Association of Malta, available at https://scouts.mt, accessed 18 May 2025.

6.1.5. Ensuring the curriculum principles of relevance, horizontal and vertical coherence, progression and transparency, and avoiding curriculum overload

When integrating RFCDC-ESD into the curriculum, several key curriculum principles need to be followed. These principles must be considered together and applied in practical ways during planning and teaching.

Relevance means that taught content should connect to students' lives and needs, linking sustainability topics, like climate change, to personal experiences. For example, students could investigate local pollution or waste management issues, making learning immediate and meaningful while building competences such as civic-mindedness, critical thinking and co-operation.

Horizontal coherence and vertical coherence prevent fragmented learning by connecting content across subjects and grade levels. Horizontal coherence aligns related competences across subjects within a school year, while vertical coherence ensures these competences develop progressively over time. For example, students might work on a science project on biodiversity alongside social studies lessons on environmental policy, reinforcing learning across disciplines. Younger students might learn basic concepts like recycling, while older students conduct research on sustainability, advancing their competences to higher levels.

Progression ensures that competences grow in complexity as students advance. Educators can map out competences, starting with basic activities like recycling and moving to complex tasks like analysing environmental data and leading community projects, gradually building proficiency across RFCDC-ESD competences. This can follow a spiral curriculum, where competences are revisited at increasingly advanced levels.

Transparency in curriculum design means competences should be clearly integrated and understood by educators, students and other stakeholders. Teachers can explicitly show how ESD activities develop democratic competences like critical thinking and co-operation. Curriculum maps or rubrics can clarify which competences are targeted, enhancing visibility for students and parents.

Avoiding curriculum overload is essential to maintain balance. Schools can conduct audits to identify redundant content. Rather than adding extra content, educators could adapt current topics like ecosystems for student-led projects, focusing on environmental and democratic engagement. Ensuring that added content is realistic and valuable for students' futures may mean removing less essential content to prioritise RFCDC-ESD competences.

6.1.6. Aligning curriculum, pedagogy and assessment

It is also important to ensure that there is proper alignment between curriculum, pedagogy and assessment. Misalignment sometimes occurs either because different actors are responsible for making decisions about the three components (e.g. the education ministry decides on the curriculum, teachers or schools decide on the pedagogies and examination boards decide on the assessments), or because decisions are made about one of the three components without paying sufficient attention to the other two components.

The three components need to be closely aligned with one another. This is because, without such alignment, the educational process will be jeopardised. For example, if pedagogies are not aligned with the curriculum, they will not enable learners to achieve the required learning outcomes in an optimal manner; if assessment is not aligned with pedagogies, the results of the assessment are likely to be misleading; and if assessment is not aligned with the curriculum, then it will be unclear whether the learning outcomes specified by the curriculum have been achieved. To ensure proper alignment, pedagogies need to be chosen on the basis that they are the optimal methods for enabling learners to achieve the learning outcomes specified by the curriculum, and assessment methods need to be chosen on the basis that they are able to assess the learning outcomes specified by the curriculum and achieved through the pedagogies that have been employed.

In practice, aligning curriculum, pedagogy and assessment when integrating RFCDC-ESD competences with subject competences involves deliberate planning across all three areas:

- Curriculum: the curriculum should explicitly outline how the various RFCDC-ESD competences are integrated into subject content. For example, in a science class, the curriculum could link biodiversity studies with democratic competences by requiring students to debate local conservation policies while proposing solutions for sustainable ecosystem management;
- Pedagogy: educators can choose teaching methods that simultaneously develop RFCDC-ESD competences alongside subject-specific knowledge. For instance, a project-based learning approach might involve students working collaboratively (which requires the use and practice of several RFCDC-ESD competences) on a renewable energy project, while using scientific methods to measure energy consumption (which requires subject competences). Group work and debates could encourage listening skills and linguistic and communicative skills in tandem with understanding sustainability;
- Assessment: to align assessment with both the curriculum and pedagogy, assessment tasks should assess students' proficiency in both subject-specific and RFCDC-ESD competences. For example, a comprehensive assessment could include a research report on the environmental impact of local industries (science competence), along with critical reflection on how democratic participation can influence policy changes and proposals for sustainable development (RFCDC-ESD competences). Teachers can use rubrics that evaluate scientific understanding and clusters of RFCDC-ESD competences, ensuring that students are assessed holistically.

Through the competence model and the descriptors, RFCDC-ESD provides a robust foundation for ensuring alignment between curriculum, pedagogy and assessment. The competences and the descriptors can be used not only to guide the design of the curriculum and to identify the most suitable pedagogical methods for supporting learners to develop the competences, but also to aid decision making concerning the most appropriate methods for assessing learners' proficiency in the use of the competences. In other words, RFCDC-ESD provides a conceptually coherent core around which the necessary alignment between curriculum, pedagogy and assessment can be built.

6.2. Suitable pedagogies for RFCDC-ESD

As we have seen earlier, integrating ESD based on the RFCDC necessitates the adoption of transformative pedagogies. These pedagogies should use experiential and participatory methods that require learners to reflect critically on their own behaviour in a range of different contexts, both within and beyond the school setting. Appropriate pedagogical approaches that should be used include educators modelling sustainability values, attitudes and practices, co-operative learning, inquiry-based learning, project-based learning, service learning, supporting critical reflection, and outdoor learning and field work.

6.2.1. Educators modelling sustainability values, attitudes and practices in the classroom

Educators play an important role in modelling values, attitudes and practices related to sustainability for their students, because they offer an important and salient example for students to follow. The way educators behave, interact and communicate within the classroom can influence a wide range of competences in students, including their openness, respect, civic-mindedness and empathy, as well as their valuing of human dignity, human rights, cultural diversity, democracy, justice and fairness. By consistently demonstrating these kinds of values, attitudes and behaviours, all of which are aligned with democratic and sustainability principles, educators can provide students with a powerful example to follow.

6.2.2. Co-operative learning

Co-operative learning involves students working together in small groups to achieve common goals. The approach requires positive interdependence between the learners within a group, so that group members have to depend on each other in order to be able to complete the task. They also have to know that they are dependent on each other in order to achieve the goals. This ensures that the learners support each other, with teamwork and co-operation being key to success. The process also requires individual accountability to ensure that all group members make their own clear contribution to the achievement of the group goals. At the end of the process, there should be group self-reflection on the collaborative learning process and the group's achievements. The teacher's role is to supervise interactions, ensuring no student is left behind and that group dynamics remain positive. This is especially important with younger learners or in mixed-ability groups. Intergenerational co-operation can enhance co-operative learning by involving students in projects with individuals from different age groups. Working with older community members or younger students allows learners to develop respect, empathy and openness towards diverse perspectives, enriching their understanding and enhancing social cohesion.

While co-operative learning provides many benefits (such as higher academic achievement, productivity, caring relationships and the development of co-operative skills, listening skills, linguistic and communicative skills, conflict-resolution skills, empathy and mutual respect), it is not without challenges. One common challenge is that co-operative learning can provoke conflicts within groups. Differences in working styles, unequal participation or disagreements on task approaches can lead

to tension among group members. Students may struggle with negotiating roles or resolving conflicts, which can hinder progress and create frustration. To address these challenges, teachers must monitor group dynamics closely and intervene when necessary, providing guidance on conflict-resolution and communicative skills. By teaching students how to handle disagreements constructively, co-operative learning can transform these conflicts into opportunities for growth, fostering important competences such as empathy, openness and respect. Co-operative learning also promotes higher academic achievement, productivity, caring relationships and self-esteem. This is in contrast to competitive learning, which can foster self-interest and demotivate those who do not succeed. In short, co-operative learning – when well-managed – supports the development of competences that are important for both academic achievement and social life and activity.

Case example 5 – Co-operative learning through Tinkering Projects at Tinkering School[19]

Keywords: co-operative learning, sustainability challenges, teamwork, problem solving, civic-mindedness

At the Tinkering School, co-operative learning is integral to engaging students in hands-on projects that build creativity, problem solving and teamwork. Through the "TINK@School" initiative, students work in small groups to tackle sustainability challenges, such as creating structures from recyclable materials. This setup fosters positive interdependence, with students relying on each other's skills to reach shared goals. In each project, students take on specific roles, ensuring individual accountability within a team-centred approach. For instance, one student might research materials, another design the structure and another handle energy sources, showing how each contribution is essential. Teachers supervise interactions, supporting students in conflict resolution and communicative skills as they navigate design choices and task division. At the project's end, groups reflect on their learning, discussing challenges and celebrating achievements. This reflection reinforces empathy, respect and mutual appreciation, helping students value teamwork and develop as active, responsible participants. Tinkering School's projects demonstrate the benefits of co-operative learning, providing a supportive environment for developing RFCDC competences such as civic-mindedness, empathy and critical thinking.

19. See TINK@School, available at https://tinkeringschool.eu, accessed 18 May 2025.

6.2.3. Inquiry-based learning

Inquiry-based learning is a student-centred approach that emphasises exploration, discovery and active participation. Students ask questions, conduct investigations, gather and analyse data, and develop solutions, fostering both analytical and critical thinking skills and autonomous learning skills. This approach naturally aligns with science education, as students actively engage in the scientific method: formulating hypotheses, collecting data, conducting experiments and drawing conclusions based on evidence. Unlike traditional methods, inquiry-based learning promotes active learning, as students explore real-world issues such as climate change and sustainability. Teachers should design open-ended inquiry projects aligned with curriculum standards and RFCDC-ESD competences. The process begins with a thought-provoking question, encouraging students to brainstorm and investigate collaboratively. Throughout the inquiry, teachers guide students in gathering and analysing data, with an emphasis on reflective thinking. For example, students might investigate the impact of local pollution, climate change or waste management, applying scientific methods to gather data and analyse environmental conditions, while simultaneously engaging in discussions about the ethical implications and societal impact of their findings. This interdisciplinary approach strengthens both scientific literacy and democratic understanding. The final step involves presenting findings, where students receive feedback not only on their scientific conclusions but also on how effectively they worked together, respected diverse perspectives and engaged in co-operative problem solving. Through this process, competences such as valuing diversity, openness to otherness, respect, responsibility, tolerance of ambiguity, civic-mindedness and co-operation skills are embedded into the scientific inquiry process and are enhanced.

In the fields of science, engineering and mathematics, competences can be embedded in the way students approach problem solving, critical analysis and collaborative work. For example, in mathematics, students might analyse data related to energy consumption or environmental trends, developing not only their numeracy skills but also their ability to critically interpret information and its societal implications. In science, students could apply inquiry-based learning to explore climate science, conducting experiments while reflecting on the ethical responsibilities of scientific research and its impact on policy. Similarly, in engineering, students might work on designing sustainable technologies while considering social justice and the importance of inclusive, democratic processes in decision making.

In this way, RFCDC-ESD competences are not only developed through interdisciplinary collaboration but are also woven into the core of subject-specific learning. This ensures that students develop a holistic understanding of both sustainability and democratic values and processes across all areas of their education, fostering active citizenship within the context of specialised knowledge and skills.

Case example 6 – An example of inquiry-based learning[20]

Keywords: inquiry-based learning, socio-scientific issues, sustainability, critical thinking, civic action

Socio-Scientific Inquiry-Based Learning (SSIBL) in the Netherlands was implemented in the PARRISE project (Promoting Attainment of Responsible Research and Innovation in Science Education). The focus was on using inquiry to engage students with socio-scientific issues such as climate change, biodiversity and sustainable energy. The SSIBL framework encouraged students to develop research questions, conduct investigations and propose solutions while engaging in discussions about the ethical and societal implications of their findings. In one example, Dutch students explored plastic waste management, where they researched the environmental impacts of plastic use, proposed alternatives and created informational campaigns to raise awareness. This project not only developed students' understanding of sustainability but also their competences in communication, co-operation, and analytical and critical thinking, aligned with RFCDC-ESD goals. Through their work, students became more active in addressing environmental challenges and were empowered to participate in civic action.

6.2.4. Project-based learning

Inquiry-based learning and project-based learning are both student-centred approaches that enhance co-operative, analytical and critical thinking skills. While inquiry-based learning emphasises exploration through open-ended questions and investigations, allowing for flexible, student-driven learning, project-based learning focuses on structured projects that address real-world problems, integrating multiple disciplines to produce tangible solutions. Both approaches effectively prepare students for active citizenship and sustainable development, equipping them to tackle complex global challenges. For instance, in a project-based learning experience centred around climate change, students might apply scientific knowledge to analyse data, while also engaging in democratic discussions about ethical responsibilities and proposing sustainable community solutions. To implement project-based learning and integrate RFCDC-ESD effectively, clear competence-based learning objectives should be established. These objectives should align with curriculum standards and incorporate the promotion of RFCDC-ESD competences. Projects should be designed to reflect real-world issues that do not have simple answers, mirroring the complexities of both democratic processes and sustainability challenges.

For example, students might design a sustainable urban neighbourhood, conducting research, creating models and presenting their plans to local officials. Starting with a driving question, such as "How can our school reduce its carbon footprint?", teachers could encourage interdisciplinary inquiry across subjects such as science, mathematics and social studies, helping students tackle questions from multiple perspectives. In this scenario, students would conduct scientific research on energy

20. See European Commission (2024a).

efficiency, use mathematical skills to calculate carbon footprints and engage in democratic decision making by presenting their findings to local officials, holding debates and seeking community input.

Collaboration is key in project-based learning, with students working in groups, each member taking on a role such as researcher or presenter. At the end of the project, students also have to reflect on the learning process that has taken place and draw conclusions about it. Competences such as listening skills, linguistic and communicative skills, empathy, tolerance of ambiguity, co-operative skills and conflict-resolution skills are practised throughout the project, particularly when groups must agree on the best course of action. The competences come into play as students grapple with sustainability challenges such as reducing waste, using renewable energy or creating eco-friendly solutions, applying analytical and critical thinking skills to understand the broader impact of their decisions. At the end of the project, students reflect on both the learning process and their group dynamics, critically evaluating their roles in the democratic and sustainability-oriented aspects of the project. This reflection helps to consolidate the competences that have been practised through the course of the project and also helps to foster competences such as knowledge and critical understanding of the self, civic-mindedness and responsibility, while reinforcing ESD principles by encouraging students to think about the long-term implications of their actions. Through such reflections, students gain insights into how they can contribute to their communities as proactive, responsible citizens engaged in sustainable development.

Hence, project-based learning aligned with RFCDC-ESD principles fosters not only the development of critical understanding and cognitive skills but also values, attitudes and social skills, and helps to prepare students to be proactive, responsible citizens engaged in sustainable development.

Case example 7 – An example of project-based learning[21]

Keywords: project-based learning, teamwork, decision making, civic engagement

The Community Garden and Sustainable Agriculture project at the International School of Geneva showcases how project-based learning integrates RFCDC and ESD principles. Students address real issues such as soil health, water conservation and biodiversity, linking science, social studies and language arts. They actively participate in planning, decision making and sustainable practices, fostering teamwork and responsibility. The project spans a significant period of time, allowing students to conduct soil tests, install systems and reflect through essays and discussions. They present their findings to the school and local stakeholders, demonstrating the impact of their work. Innovative solutions such as automated watering systems enhance the project's practical relevance, while post-project reflections evaluate the overall experience and learning outcomes.

21. See Ecolint, Ecole internationale de Genève, available at www.ecolint.ch/en, accessed 19 May 2025.

6.2.5. Service learning

Service learning combines community service with academic learning, enabling students to apply their knowledge and skills to address real community needs. Crucially, service learning involves learners engaging in service activity that benefits the community beyond the school, after which they are required to reflect on their service activity in order to master specific learning outcomes and develop their competences. Service learning should also ideally involve authentic activities, offer real responsibilities and challenging tasks, and provide ample opportunities for subsequent in-class discussion and reflection. After completing their service activity, students need to reflect on their experiences, critically evaluating how their work connects to learning outcomes and how they have contributed to solving broader societal and environmental challenges.

For example, a service learning project might involve students collaborating with local organisations to design and implement a community recycling programme. In this project, students would apply scientific knowledge to understand waste management systems, while also developing democratic competences by engaging with community members, organising local events and advocating for environmental responsibility. Through this experience, students practise competences such as linguistic and communicative skills, co-operation skills and conflict-resolution skills, while also addressing real sustainability issues.

Service learning should ideally involve authentic tasks and responsibilities that require students to apply both academic content and democratic decision making. For instance, a project focused on restoring a local park could engage students in discussions on both sustainable development and democratic processes, as they plan park improvements, work with local stakeholders and participate in public forums to present their ideas. These activities promote analytical and critical thinking skills, while also fostering a sense of civic-mindedness, responsibility and social justice. Service learning allows students to practise and master RFCDC-ESD competences, such as empathy, tolerance of ambiguity, conflict-resolution skills, analytical and critical thinking skills, and ethical decision making based on RFCDC-ESD values. For example, students could organise an energy efficiency awareness campaign, using scientific data to inform the community about renewable energy while simultaneously engaging in discussions about equity and democratic decision-making processes.

This form of practical, experience-based civic education directly supports the development of RFCDC-ESD competences and ensures that all students, regardless of background, can participate actively in their communities. It connects classroom learning with real challenges, making it a vital part of students' formal education, where they not only serve their communities but also learn to act as responsible, proactive citizens working towards sustainable development.

Case example 8 – Service learning through the Messengers of Peace initiative[22]

Keywords: service learning, environmental stewardship, democratic engagement, community action, active citizenship

The Messengers of Peace initiative, launched by the World Organization of the Scout Movement, demonstrates how service learning can address real community needs while fostering RFCDC-ESD competences. As part of this initiative, Scouts worldwide engage in projects that combine environmental stewardship, democratic engagement and educational growth. One example of the Messengers of Peace's impact is a community recycling project undertaken by Scouts in collaboration with local organisations. The project aimed to promote sustainable waste management practices in their community. Scouts organised public awareness campaigns to educate residents on the importance of recycling and conducted workshops to teach practical recycling methods. Working alongside municipal authorities and local NGOs, they established collection points and implemented a system for sorting and processing recyclable materials. Throughout the project, Scouts prepared and delivered presentations to diverse audiences, raising awareness about recycling and sustainability. The project required Scouts to engage in democratic decision-making processes, working collaboratively with community members to design effective recycling systems. Scouts reflected on the environmental and social impact of their work, fostering a sense of responsibility towards their community and the planet. After completing the project, participants engaged in structured reflection sessions, evaluating their contributions and the project's outcomes. These reflections helped Scouts deepen their understanding of sustainability challenges and recognise their roles as active citizens. The Messengers of Peace initiative exemplifies how service learning connects classroom knowledge to real-world action, empowering young people to lead change in their communities while developing the competences needed for democratic and sustainable futures.

6.2.6. Supporting critical reflection

There is an abundance of research evidence that guiding and supporting learners' critical reflection on their experiences and on their own competences and levels of proficiency helps to foster the development of their democratic competences, especially those that are linked to interculturality (e.g. openness, respect, empathy, understanding of the self, and understanding of culture and cultures) (Byram et al. 2017; Lindner and Méndez García 2014; Méndez García 2017; Schwarzenthal et al. 2019; Schwarzenthal et al. 2022). Two tools that can be used with considerable benefit to support and encourage learners' critical reflections are reflective journals and portfolios.

Reflective journals encourage students to think critically about their own learning and personal growth, fostering self-awareness as well as their values and attitudes. Journals can be used throughout all learning to encourage reflection on the learning

22. See Scouts for SDGs, Messenger of Peace Initiative, available at https://sdgs.scout.org/post/messenger-peace-initiative, accessed 18 May 2025.

process as well as on the learning content. For example, they could be used when conducting a project on climate change, with learners reflecting critically on what they have learned, how their views have changed and what actions they plan to take in the future.

Reflective journals align with RFCDC-ESD by promoting competences such as critical thinking, self-efficacy, and knowledge and critical understanding of the self. They can also be used to encourage reflection on sustainability, connecting theory to real-world applications and fostering responsibility for sustainable development. To implement reflective journals effectively, students should write regularly, guided by questions like "What challenges did I face?" and "What did I learn?"

Despite the benefits, implementing reflective journals can present challenges. Some students may struggle with articulating their thoughts, while others may view it as an additional burden. To address these issues, teachers can provide initial training on reflective writing, give examples of good reflections and foster an environment that encourages open and honest reflection. They can also review journals and provide feedback to support student learning. However, there are also other options. For example, the teacher could encourage learners to use their journals as private diaries for purely personal reflection, which can encourage greater honesty in the self-reflections they write. Another option is to organise pairs of learners to act as "mentors" for each other, discussing and reflecting on the contents of each other's journals.

Reflective journals are a powerful educational tool that can significantly enhance student learning. By promoting a habit of reflection, students develop critical thinking skills, become more self-aware learners and improve their academic performance. The integration of reflective journals into classroom practices not only aligns with the broader learning objectives of RFCDC-ESD but also ensures that students gain a deeper and more meaningful understanding of their own education.

Other tools that can be used to support and encourage learners' critical reflections on their own experiences and competences and on the learning process are portfolios and e-portfolios. These are collections of students' work that showcase their learning progress and achievements over a substantial period of time and require learners to reflect critically on these materials. They can include essays, projects and reflections on experiences and provide a comprehensive view of student development. They help students integrate and reflect on their learning, leading to deeper understanding and better preparation for future challenges. For example, students might create a portfolio documenting their work on a sustainability project, including research notes, project plans and final presentations. An e-portfolio is an electronic collection of evidence showing a student's learning journey. It may include writing samples, photos, videos and research projects, along with reflections on why the evidence was chosen and what was learned. E-portfolios can be created using various tools, such as desktop software or online platforms.

The RFCDC-ESD aims to equip students with competences for active, responsible participation in a democratic and sustainable society, and portfolios can support this goal by promoting self-reflection and critical thinking (e.g. through analyses of current threats to sustainability, analyses of current affairs and multimedia projects reflecting on democratic values). Students can also use portfolios to reflect on their

learning through interdisciplinary projects on topics such as renewable energy experiments, or to reflect on their community service, fostering their academic growth and social responsibility. Portfolios offer a holistic approach to preparing students as informed, responsible global citizens.

Case example 9 – An example of the use of e-portfolios[23]

Keywords: e-portfolios, environmental science, civic education

In Slovenia, e-portfolios are integrated into secondary education to enhance learning in environmental science and civic education. Students in Ljubljana documented their participation in a community clean-up initiative, which involved collaboration with local NGOs and municipal authorities. Their e-portfolios included research on local waste management issues, photos and videos of their participation in the clean-up, and reflections on how the experience deepened their understanding of sustainability and democratic engagement. The portfolios also showcased how students worked together to create public awareness campaigns, fostering civic-mindedness, responsibility and critical thinking.

6.2.7. Outdoor learning, field work and volunteerism

Albert Einstein famously said, "I never teach my students, I only provide the conditions in which they can learn." Indeed, it is crucial to remember that learning is an active process and sometimes the best and most memorable learning experiences take place outside the walls of the classroom.

Outdoor learning, fieldwork and volunteerism offer experiential learning that can be used to connect students to their environment while promoting both democratic and sustainability competences. These hands-on activities, such as community clean-ups or biodiversity surveys, foster problem solving, collaboration and decision making based on democratic processes. They also align with RFCDC-ESD goals by giving students first-hand experience of environmental issues and encouraging stewardship and responsibility for sustainability. Research shows that outdoor learning enhances social skills, environmental awareness and personal development. In short, it prepares students to be informed, responsible citizens who are able to make decisions for a sustainable future.

23. See Cerar et al. (2019).

Case example 10 – An example of outdoor learning and field work[24]

Keywords: outdoor learning, sustainability education, democratic values, teamwork

The Terälahti and Korento nature schools in Tampere, Finland, use outdoor learning as a key method to enhance sustainability education and promote student well-being. Through activities like iNaturalist, students actively engage with the natural world, cultivating a sense of responsibility for the environment. This approach promotes mental and physical health, innovative learning and environmental awareness, and is supported by local funding and the Eco-Schools programme. In addition to these benefits, this initiative aligns with the embedding of critical democratic values in its educational model. Students develop civic-mindedness and a sense of responsibility through their contributions to sustainability efforts, learning how their actions affect the community. Collaborative nature-based projects encourage teamwork, enhancing co-operation skills, while critical thinking is developed as students reflect on environmental challenges. The initiative also promotes respect for cultural diversity, as students from various backgrounds work together, sharing ideas and perspectives.

6.2.8. Place-based learning

Place-based learning is a pedagogical approach that builds on the connection between learners and their local environment. It involves using learners' immediate surroundings, and the local economic, social and environmental context in which they live, as the foundation for their learning. It uses the conditions of which they have first-hand experience and knowledge to help build their competences for sustainability. The approach can therefore include outdoor learning and field trips, as well as projects and community service undertaken in the local environment and community (Hernandez Gonzalez 2023; Yemini, Engel and Ben Simon 2023).

Place-based approaches, by their nature, involve students in context-rich learning of content and experiences to address community problems. ESD topics might include such areas as energy consumption (energy, food, etc.), renewable energy sources, conservation and reforestation. The transformative skills involved require educators to use pedagogical methods that engage learners in experiential and participatory learning to bring meaning to the concepts they are learning about in ESD.

Participatory place-based approaches using these kinds of pedagogies provide fertile ground for the development and assessment of pro-sustainability skills, particularly where students' involvement in planning and participation is not reduced to a minor component. There is sufficient evidence suggesting that well-managed place-based approaches not only strengthen the association between "learning about" sustainability challenges and "learning to do" (acquiring the skills to act) but are also transformative for students in terms of pro-sustainability learning outcomes (UNESCO 2019). In addition, as we shall see later, grounding such approaches in the RFCDC has the benefit of simultaneously strengthening students' values and attitudes for

24. See European Commission (2024b).

actively engaging with environmental and sustainability challenges, providing them with the motivation, willingness and drive to participate in relevant practical action.

6.3. Teaching controversial issues

So far in this guidance document, we have assumed that humankind is in the midst of a major planetary environmental crisis and that education has an important role to play in preparing and empowering young people to address this crisis. However, it is important to recognise that the issues associated with the crisis (e.g. global warming, climate change, the large-scale destruction of ecosystems) are contested, and debates about these issues both in the media and in everyday life often involve conflicts of values and interests as well as disputed claims about the underlying facts. These debates can also arouse strong feelings in individuals and may create or reinforce social divisions, generating suspicion and mistrust (Council of Europe 2015a).

For this reason, young people need to be prepared through education to address the controversial nature of the issues that often lie at the heart of ESD. Using an open classroom climate is highly suitable for this purpose. Moreover, an open classroom climate helps to foster students' civic knowledge as well as their intention to engage in civic life in the future – this is one of the most consistent findings that has emerged from all of the major international surveys carried out by the International Association for the Evaluation of Educational Achievement (IEA) on civic and citizenship education (Schulz et al. 2010, 2018, 2023a; Torney-Purta et al. 2001).

An open classroom climate involves:

- giving learners the opportunity to raise controversial social and political issues that are of interest to them;
- allowing them to discuss these issues openly;
- encouraging them to explore and research different possible viewpoints and to listen to the ideas of others;
- allowing them to formulate their own opinions on the issues concerned;
- allowing them to express their own opinions even though these may differ from those of other learners and from those of the teacher.

This process fosters the development of competences such as autonomous learning skills, analytical and critical thinking skills, listening skills, linguistic and communicative skills, and tolerance of ambiguity and respect, while also developing critical understanding of the complexity of sustainability challenges. In this type of learning environment, students are encouraged to challenge ideas respectfully, research and consider alternative perspectives, and develop the confidence to advocate for solutions that are both democratic and sustainable.

For example, a teacher might introduce a debate on sustainable energy policies. Students could examine the scientific evidence for renewable energy sources (i.e. subject competences), discuss the ethical implications of energy consumption on future generations and debate policy responses that promote equity and participation. In doing so, students develop a deep understanding of the interconnectedness of democratic decision making and sustainability, honing competences such as civic-mindedness and responsibility. This approach also promotes the development

of analytical and critical thinking skills and linguistic and communicative skills. Discussions of controversial issues can be used to help students connect global sustainability challenges to democratic processes, fostering their understanding that individual and collective actions have a significant impact on both environmental and societal outcomes. Such discussions create dynamic learning environments where students not only acquire skills, knowledge and critical understanding but also learn how to act as responsible, engaged citizens.

However, teaching controversial issues is challenging. Schools need to create a supportive environment, where difficult but necessary conversations can take place, and schools may also need to address the possible anxieties of parents and others outside the school. It is essential that teaching the controversial material proceeds in a balanced way in order to avoid criticisms of bias. Within the classroom, teachers need to ensure that strong feelings, if aroused, do not have negative effects on vulnerable and other students. That said, if handled appropriately, the teaching of controversial issues within an open classroom climate allows students to engage with global challenges such as climate change, human rights and economic inequalities in ways that encourage and support their critical reflection, civic knowledge, active citizenship and future civic engagement.[25]

6.4. Formative and summative assessment methods that can be used in the implementation of RFCDC-ESD

Implementing ESD based on the RFCDC requires the use of appropriate methods for both formative and summative assessment. These methods must align with curriculum content and pedagogical strategies, so that they assess the competences that are specified in the curriculum, which should also be the competences that have been developed through teaching democratic culture and sustainability. Several assessment methods are particularly suitable for assessing the development of competences for democratic culture and sustainability. These include all of the following methods described below.

Dialogue-based assessment: this is assessment that takes place through interactive discussions between educators and students, fostering critical reflection and self-assessment. The method can be used to assess the values, attitudes, skills, and knowledge and understanding of students, offering a convenient way to identify both strengths and weaknesses, set learning goals and address challenges. It is particularly useful for students who struggle with written expression. For example, during a unit on climate change, educators can use dialogue-based assessment to ask students reflective questions about the societal impacts of environmental policies and the ethical dimensions of sustainability. Through these discussions, students are guided to evaluate their understanding and articulate their viewpoints, fostering analytical and critical thinking skills and knowledge and critical understanding of the self. This method is suitable for assessing all 20 competences but is especially valuable for

25. For more detailed information about teaching controversial issues, including how teachers can be prepared for such teaching and how schools can manage the process, see Council of Europe (2015a, 2017, 2020a).

assessing competences such as valuing human dignity and human rights; valuing cultural diversity; valuing democracy, justice, fairness, equity and the rule of law; openness; respect; responsibility; empathy; and linguistic and communicative skills, as students explore the social, ethical and environmental implications of their studies.

Activity-based self-assessment: by asking students to undertake a specific activity and to then reflect on their own progress on that activity and identify areas for improvement, this method encourages students to take an active role in their own learning. Self-assessment aligns well with education for democratic culture and helps to promote metacognition as well as enhancing competences through the reflection process. Through the use of the RFCDC descriptors, students can assess their own proficiency in all 20 RFCDC competences using this method. For instance, they may evaluate their proficiency in the use of the competences on a service learning project aimed at encouraging the reduction of waste in the local community. This method encourages metacognition, as students think critically about their own progress and areas for improvement. Educators can also provide additional guidance on how to align their reflections with the RFCDC-ESD competences they are aiming to develop.

Project-based assessment: this is an intrinsic component of project-based learning and evaluates students through their achievements on long-term interdisciplinary projects that require the use of various competences, and it can provide a comprehensive view of students' abilities. The method combines learning and assessment, with students being required to document the project process and reflect on their progress. The assessment can encompass the students' planning, decision making, problem-solving and presentational skills. In group projects, assessments can also be made of the students' linguistic-communicative, co-operation and conflict-resolution skills. Assessments can be made either by teachers, peers or students themselves. Rubrics may also be used to improve reliability in assessment. Project-based assessment helps to promote reflection and autonomous learning, which makes it a valuable tool for educators. For example, in a project where students develop a sustainable urban design, educators can assess students' scientific knowledge and their ability to work co-operatively, express themselves linguistically, resolve conflicts and respect fellow group members. Teachers can use rubrics based on the RFCDC descriptors to evaluate all of these specific competences. Projects often require students to reflect on their learning process, documenting how they applied democratic principles and sustainability concepts to solve problems, which provides a comprehensive view of their interdisciplinary competences.

Reflective journals, portfolios and e-portfolios: these allow learners to document and reflect on their own behaviour, learning and personal development. These reflections can be freely structured or follow a specific format and structure to assess particular learning outcomes such as proficiency levels on individual RFCDC-ESD competences. This method is ideal for experiential courses, where learners make entries before, during and after the course, reflecting on experiences, thoughts and behaviours to track progress. Formal assessments of the journal or portfolio contents can be made using rubrics to enhance the reliability of the assessments that are made. For instance, after participating in a community clean-up project, students could write journal entries on how the experience enhanced their civic-mindedness

and their responsibility for environmental stewardship. They can reflect on personal growth in areas such as empathy and respect and their ability to analyse and think critically about sustainability issues. These reflections can be structured using the RFCDC descriptors and evaluated through rubrics to ensure a clear connection between student reflection and competence development.

A wide range of other assessment methods can also be used for assessing students' progress in mastering RFCDC-ESD competences. These include oral presentations, written essays, observational assessments, role play, dynamic assessments and scenario-based assessments. All of these methods can be used to assess at least some of the 20 RFCDC-ESD competences, although not all of these methods can be used to assess all 20 competences. A comprehensive review of all of the available assessment methods, which includes details of how each method may be used to assess RFCDC competences, together with concrete examples of how each individual method is actually used in practice, is available in a freely available resource book published by the Council of Europe (2021a) to accompany the RFCDC.

In addition, tools from international large-scale assessments such as the International Civic and Citizenship Education Study (ICCS) (Schulz et al. 2023b) and the Programme for International Student Assessment (PISA) (OECD 2020a) can also be used to provide valuable insights into the effectiveness of RFCDC-ESD programmes. These measures of competences have high levels of reliability and validity and can be used to identify strengths and areas for improvement in educational programmes. For example, schools could use a selection of the ICCS scales to assess their students' civic knowledge, attitudes and engagement, while scales taken from the PISA Global Competence assessment questionnaire could be used to assess students' global-mindedness, intercultural communication skills and ability to understand and address global issues. This would allow schools to assess the effectiveness of their RFCDC-ESD programmes in promoting students' global competences and their ability to engage with diverse perspectives.

6.5. Using a whole-school approach to RFCDC and ESD implementation

To empower learners as agents of change for sustainable development, learning institutions must undergo transformation. It is widely agreed that the best outcomes can be achieved if entire institutions align themselves with sustainable development principles. This approach integrates sustainability into every aspect of the school environment, reinforcing learning through management practices, decision making and community engagement.

A WSA embeds sustainability across the entire institution by connecting what students learn in the curriculum with how the school operates. It takes learning beyond the classroom, involving students in school decisions, community projects and global initiatives. By creating real-life sustainability experiences, a WSA fosters a culture of sustainability that extends beyond individual teachers.

Introducing and maintaining a WSA requires strong leadership from school principals, who play a critical role in creating the vision, fostering a culture of sustainability and democracy, and ensuring the active involvement of all stakeholders. Principals

are key agents of change, driving innovation in both curriculum design and school operations. They set the tone for the entire institution and are responsible for initiating and supporting transformative efforts that align with RFCDC-ESD values. Principals must not only advocate for sustainability but also lead by example, guiding school-wide efforts to embed democratic processes in decision making and create a supportive environment for collaborative innovation. Their leadership is essential for integrating sustainability into school policies, curriculum planning and the daily management of school resources, ensuring that the WSA is a lived experience for students and staff alike. Through their leadership, principals can ensure that this approach is not limited to isolated initiatives but becomes an integral part of the school's identity, ultimately enhancing students' competences and preparing them to be active, responsible citizens.

Volume 3 of the RFCDC (Council of Europe 2018) discusses the WSA in depth and explains how schools can implement this approach in practice. Key principles of the approach include (1) respecting the local context and ways of working, involving all stakeholders; (2) empowering all stakeholders to develop their own solutions to the challenges associated with introducing and operating a WSA; (3) including all stakeholders – ranging from students, teachers, school leaders and parents to local authorities and other community actors – through a process of participatory decision making; (4) integrating capacity building into the school planning process to ensure that changes in school culture are sustainable; and (5) supporting local projects and initiatives over the long term to achieve tangible outcomes and sustainable impact.

Volume 3 also describes how a WSA can be implemented through five stages that are repeated cyclically: (1) conduct a situation analysis to assess how democratic and sustainability principles can be integrated into school life, involving all stakeholders in the process; (2) identify areas for improvement and develop an action plan with concrete activities to address those areas; (3) implement the action plan with community participation; (4) evaluate progress and assess the impact; and (5) share the lessons learned with all stakeholders and plan the next steps through a further situation analysis. The cycle can then be repeated.

A successfully introduced WSA will cover all of the following:

- leadership: a strong commitment to sustainability and democratic principles will be evident across the school's leadership;
- mission and vision: the school's mission and vision will explicitly reflect its dedication to sustainability, democracy and global citizenship;
- curriculum: RFCDC-ESD will be thoughtfully integrated across all subjects, ensuring alignment with educational goals;
- pedagogies: innovative, student-centred teaching methods that foster critical thinking, collaboration and active learning will be employed;
- operations: school operations, including infrastructure and resource use, will model sustainability and democratic principles;
- partnerships: strong partnerships will be established with local communities, organisations and stakeholders to support and enhance initiatives;
- student involvement: students will play an active role in sustainability efforts and democratic processes, fostering a sense of ownership and responsibility;

- parental involvement: parents will be engaged as partners in supporting sustainability and democratic practices within the school;
- staff training: ongoing professional development opportunities will ensure staff are well-equipped to implement and support WSA principles;
- assessment: comprehensive assessment frameworks will be implemented to evaluate the effectiveness of initiatives and their impact on student learning;
- resources: adequate resources, including financial, material and human resources, will be allocated to support the successful implementation of a WSA;
- monitoring and evaluation: continuous evaluation and monitoring processes will be in place to identify areas for improvement and ensure long-term success.

A school in which a WSA has been introduced provides a living model of a sustainable society. The approach fosters both environmental and democratic education, and promotes active learning, civic engagement and community involvement. By adopting a comprehensive WSA, schools can enhance students' competences and create supportive, inclusive learning communities, preparing students to be active, responsible citizens. The effectiveness of this approach is demonstrated through case studies and research, revealing its transformative potential in education.

Case example 11 – Example of a whole-school approach[26]

Keywords: whole-school approach, sustainability education, civic-mindedness, community engagement, collaborative decision making

Cyprus has implemented the Sustainable Environmental Education Policy (SEEP) in pre-primary and primary education to integrate a WSA. Geroskipou A' Primary School, near Paphos, exemplifies this initiative. Since 2013, SEEP has been part of the curriculum, with a current focus on Cyprus's biodiversity and its cultural significance. This school-led policy, planned over two to three years, involves co-ordinated efforts between the school and the local community to protect biodiversity. The SEEP planning process engages all stakeholders – students, teachers, parents, community members and NGOs. Teachers guide students in identifying sustainability issues affecting their community, promoting civic-mindedness and responsibility by encouraging students to participate in decisions affecting their local environment. Once a sustainability focus is chosen, each class develops a plan for SEEP activities, which are monitored by both students and teachers, fostering co-operative, communicative and critical thinking skills – all of which are key RFCDC-ESD competences. After choosing a focus, each class creates a plan for SEEP activities, monitored by both students and teachers. At the year's end, a self-reflection and assessment process evaluates progress and identifies areas for improvement. Geroskipou A' Primary takes a holistic approach, involving collaboration with parents, children and community members to create an open learning environment that not only improves the school's quality of life but also enhances the wider community's well-being. The school also regularly shares its SEEP experiences with neighbouring schools, promoting a broader culture of sustainability education and democratic involvement across the region.

26. See Mathie and Wals (2022).

6.6. Implications for both pre-service and in-service teacher education

The integration of RFCDC-ESD into teacher education is essential for preparing educators to foster a culture of sustainability and democratic engagement in their classrooms. This section explores the current challenges and necessary steps for effectively incorporating RFCDC-ESD into both pre-service and in-service teacher education programmes.

6.6.1. Need for systematic and effective integration

Despite the recognised importance of implementing ESD into education, there is still a significant gap in its integration into teacher education programmes, as well as in training for school principals. This gap leaves many educators underprepared to teach sustainability and democratic competences effectively. While some countries have made progress in incorporating sustainability into teacher education, such as Finland and Scotland, the majority of higher education institutions lack cohesive frameworks to systematically embed it into their curricula (European Commission, European Education and Culture Executive Agency, and Eurydice 2024).

Teacher education, both initial and ongoing, is crucial for the successful implementation of RFCDC-ESD. To effectively integrate RFCDC-ESD into teacher education, a comprehensive approach is necessary. Policy makers should ensure that teacher education programmes, as well as training for school principals, systematically embed these principles across all levels, from curriculum design to pedagogical practices. This integration must move beyond fragmented efforts and become a core part of educators' preparation, ensuring that educators are equipped to promote sustainability and democratic competences in their classrooms.

Professional development programmes in RFCDC-ESD should be made mandatory for both pre-service and in-service teachers and for school principals. By providing consistent access to high-quality training, educators can build the knowledge and skills necessary to address sustainability and democratic values effectively. Such training should not be optional, as this would limit the reach and impact of RFCDC-ESD within educational institutions and would undermine the optimal goal of schools employing both a cross-curricular approach and a WSA.

Policy makers should also actively promote interdisciplinary learning in teacher education by creating structured opportunities for collaboration and peer-to-peer learning across different subjects, thereby fostering a holistic understanding of sustainability and democratic engagement. For example, teacher education programmes could incorporate joint modules where pre-service teachers from different subject areas work together on sustainability projects that integrate democratic competences. Science, social studies and language educators could collaborate on designing curricula that reflect RFCDC-ESD principles, ensuring future educators understand how to weave sustainability and democracy across various disciplines. By linking these competences to different subjects, teachers will be better equipped to implement a cross-curricular, interconnected approach in their future classrooms, breaking down the barriers between subject areas and promoting a more cohesive learning experience for students.

In addition, there must be continuous evaluation of training programmes to assess the effectiveness of RFCDC-ESD implementation. This evaluation should not only focus on the content of educators' preparation but also on how well educators apply RFCDC-ESD in their teaching practices. Regular assessments could include surveys, focus groups and classroom observations to gather data on how well teacher candidates integrate these competences into their lesson planning and delivery. Furthermore, these evaluations should track the long-term impact of RFCDC-ESD training, ensuring that educators continue to develop their competences throughout their careers.

Finally, policy makers should draw lessons from successful models in countries where educators' training programmes have effectively incorporated sustainability and democratic values through curriculum reforms, practical projects and community engagement. By adopting these proven strategies, these programmes can better prepare educators to create a culture of sustainability and democratic engagement in their schools, ensuring that future generations are equipped to address the complex challenges of today's world.

6.6.2. Equipping teachers to integrate RFCDC-ESD with democratic and human rights principles

Equipping teachers to integrate RFCDC-ESD into their teaching is essential for fostering students' understanding of democratic engagement, human rights and sustainability. Teacher education programmes – both pre-service and in-service – should offer comprehensive training, interdisciplinary approaches and continuous professional development. This includes understanding theoretical foundations, employing effective pedagogical and assessment strategies and gaining practical experience. Teachers should also collaborate across disciplines to connect democratic, human rights and sustainability principles with various subjects, ensuring a holistic learning environment. Ongoing professional development through workshops, seminars and learning communities is crucial for keeping educators updated on the latest methods and resources for integrating RFCDC-ESD into their teaching.

To effectively support teacher education institutions in addressing pre- and in-service training, policy makers should prioritise a strategic and comprehensive approach. First, it is essential to establish clear policy guidelines that mandate the integration of RFCDC-ESD principles into teacher education programmes. By embedding these principles into both pre- and in-service training, educators will be better prepared to integrate sustainability, democratic and human rights competences into their teaching practices.

Mentoring has emerged as a particularly effective form of professional development for ESD. For example, mentoring schemes provide educators with ongoing guidance and peer support, fostering their confidence and capacity to address sustainability and democratic competences in their teaching. Mentoring empowers teachers to implement ESD effectively by enabling knowledge sharing, collaborative reflection and skill development. Mentors, who are often experienced educators or specialists, can provide tailored support, helping teachers design and implement ESD activities that align with their school contexts and student needs. Such schemes also promote sustained professional growth, ensuring that teachers can adapt to evolving educational demands (Kadji-Beltran et al. 2013).

Additionally, participation in RFCDC-ESD professional development should be made mandatory for all teachers. This ensures that all educators are equipped with the necessary knowledge and skills to incorporate sustainability and democratic engagement across subjects. Policy makers should allocate dedicated funding to teacher education institutions, allowing them to develop curricula, workshops and interdisciplinary projects for this purpose. These resources should also support partnerships between educational institutions and community organisations to provide teachers with practical, hands-on learning experiences that enrich their understanding of sustainability issues.

Furthermore, continuous professional development frameworks should be established at the national or regional level, offering educators ongoing access to the latest research, methodologies and collaborative learning opportunities related to RFCDC-ESD. By ensuring that teachers and school principals have continuous support and access to up-to-date resources, policy makers can help foster an educational environment that promotes sustainability, human rights and democratic values.

Through these actions, policy makers will reinforce the capacity of teacher education institutions to comprehensively prepare educators, ensuring that they can effectively contribute to fostering a culture of sustainability and democratic engagement within their schools and communities.

Case example 12 – The Spanish Network for Sustainability Education: supporting teacher training in RFCDC-ESD[27]

Keywords: teacher training, sustainability education, interdisciplinary learning, mentoring, civic engagement

The Spanish Network for Sustainability Education (ESenRed) unites 14 school programmes promoting sustainability across over 5 000 schools, with public administration support and over 25 years of experience. A key pillar is teacher training, ensuring educators can integrate sustainability into their teaching through interdisciplinary approaches and continuous professional development. A standout example is the Network of Schools for Sustainability in Catalonia (XESC), involving over 1 700 schools that apply both cross-curricular and extracurricular approaches. Schools act as agents of ecosocial transformation, leading projects on biodiversity conservation, waste reduction and climate action, engaging students, teachers, parents and local stakeholders. To strengthen teachers' ability to integrate RFCDC-ESD, the network provides ongoing professional development, including mentoring, collaborative learning communities and interdisciplinary training. Educators receive practical, hands-on learning experiences, ensuring that sustainability and democratic competences are embedded in their teaching practices. The initiative also fosters peer support and mentoring schemes, where experienced educators guide their colleagues in designing sustainability-focused activities. By fostering civic responsibility, democratic participation and critical thinking, the network empowers schools to drive real-world environmental and social change, making

27. See ESenRed, available at www.miteco.gob.es/es/ceneam/recursos/mini-portales-tematicos/esenred.html, and XESC, available at https://escolesxesc.cat/qui-som, both accessed 18 May 2025.

sustainability a core part of education. This structured teacher education model exemplifies how strategic policy support and well-developed training frameworks can ensure that educators are fully equipped to embed sustainability, democratic engagement and human rights into their teaching

6.6.3. The UNECE framework of competences for ESD educators

The UNECE framework (UNECE 2012) provides a comprehensive guide to helping educators develop the skills and knowledge necessary for fostering sustainability, democratic engagement and human rights. This framework is structured around three key characteristics: a holistic approach, envisioning change and achieving transformation. It emphasises the interconnectedness of sustainability and democratic principles, encouraging educators to integrate these ideas into their teaching.

The UNECE framework provides guidelines to facilitate educators in becoming agents of change in relation to sustainability. A range of core competences is presented explicitly, systematically and comprehensively, clustered around three essential characteristics:

- a holistic approach, which seeks integrative thinking and practice;
- envisioning change, exploring alternative futures, learning from the past and inspiring engagement in the present;
- achieving transformation, which serves to change the way that people learn and the systems that support learning.

The framework outlines the essential competences that educators need in order to promote sustainable development effectively, categorised into four key areas: Learning to Know, Learning to Do, Learning to Live Together and Learning to Be. Integrating the UNECE framework with RFCDC-ESD involves embedding these competences into teacher education programmes, ensuring that educators can seamlessly incorporate sustainability, democratic and human rights principles into their teaching practices. Teacher education programmes should align their curricula with the UNECE framework, ensuring that pre- and in-service teachers develop the competences required for teaching RFCDC-ESD.

Several case studies across Europe demonstrate the successful integration of UNECE competences into teacher education programmes and school curricula. These programmes emphasise interdisciplinary learning, community engagement and hands-on projects that promote sustainability. Schools that have implemented these approaches have seen increased student engagement, environmental awareness and a stronger commitment to sustainability and democratic participation.

Case example 13 – Applying the UNECE principles[28]

Keywords: UNECE competences, education for sustainable development, systems thinking, critical thinking, problem solving

The "A Rounder Sense of Purpose" framework offers a comprehensive approach to integrating the UNECE competences for educators in ESD. One illustrative case is the "Systems" competence, which emphasises understanding the world as an interconnected whole. Educators applying this competence guide learners to explore the root causes of unsustainable development and recognise the complexity of systems, including interdependencies and non-linear relationships. For instance, a teacher might facilitate a project where students map the connections between local environmental issues and global economic activities, fostering critical thinking and holistic understanding. This approach aligns with UNECE's emphasis on developing educators' abilities to engage learners in systemic thinking and problem solving related to sustainability challenges.

6.6.4. Training in how to implement RFCDC-ESD in curricula, pedagogies and assessment

Effective training programmes should provide comprehensive knowledge, practical strategies and continuous support for educators in this regard. This includes training in how to review and develop the existing curriculum, how to design inclusive and participatory learning experiences, and how to choose suitable assessment methods. These programmes should cover the theoretical foundations, practical applications and reflective practices related to curriculum design and development, pedagogy and assessment.

Case example 14 – Example of high-quality teacher education[29]

Keywords: teacher training, interdisciplinary collaboration, project-based learning, Sustainable Development Goals, democratic and sustainability values

Several Spanish universities have integrated the training of future educators in sustainability through an inquiry-based and interdisciplinary approach. The teacher training programmes focus on incorporating sustainability into the curriculum by addressing global issues such as climate change and biodiversity loss, aligned with the SDGs. One prominent example involves collaboration between universities, where students in the Didactics of Science and Environmental Education programmes undergo hands-on project-based learning to understand and address sustainability challenges. The training emphasises learner-centred teaching, interdisciplinary collaboration and reflective practices. Teachers are trained to incorporate sustainability into various subjects and create engaging, participatory learning environments. They also receive guidance on assessing sustainability competences, ensuring that educators are equipped to foster democratic and sustainability values in their future classrooms.

28. See A Rounder Sense of Purpose, available at www.aroundersenseofpurpose.eu, accessed 18 May 2025.
29. See Albareda-Tiana et al. (2019).

Policy makers should also allocate sufficient resources to support the development of specialised training programmes aimed at building these professional competences in teachers. This investment will enhance educators' ability to design inclusive and participatory learning experiences that effectively promote RFCDC-ESD.

6.6.5. Building sustainability, citizenship and professional competences in teachers and non-formal educators

Educators should be equipped not only to teach democratic and sustainability principles but also to embody them in their own professional practice. To effectively integrate RFCDC-ESD into their teaching practices, educators themselves need to develop robust competences that encompass sustainability, citizenship and professional growth. This should include drawing on methods from both formal and non-formal education, as non-formal education approaches offer flexible, learner-centred strategies that can greatly benefit formal education settings.

Education methods, such as projects led by young people, peer mentoring, collaborative group work, outdoor education, experiential learning and community partnerships, which were first widely used by non-formal educators, can provide valuable opportunities for educators in formal settings to also engage students more actively. According to the Council of Europe, formal and non-formal education are complementary in fostering democratic competences and preparing students for active citizenship. While formal education provides structured curricula and a framework for systematic knowledge acquisition, non-formal education offers participatory, experiential approaches that help learners apply knowledge in real contexts. These methods encourage students to take responsibility for their learning, fostering critical competences such as communicative, co-operative and critical thinking skills. By incorporating these non-formal approaches, formal education teachers can create more dynamic, participatory classroom environments where students feel empowered to explore sustainability and democratic issues in real contexts. For example, a teacher might integrate service learning, commonly used in non-formal education, into a formal classroom setting by guiding students to identify and address a local environmental issue, encouraging active citizenship and hands-on sustainability learning. Comprehensive training programmes should provide educators with the knowledge and skills to integrate RFCDC-ESD into their teaching practices using these kinds of non-formal education techniques, which can be readily adapted to formal education, helping teachers to design engaging, interdisciplinary learning experiences that help to foster students' RFCDC-ESD competences.

Continuous professional development is essential for keeping educators updated on the latest methods and resources for implementing RFCDC-ESD. Ongoing opportunities for professional growth, such as workshops, seminars, collaborative learning communities and online courses, could ensure that educators stay informed about new developments in sustainability and democratic education. Continuous professional development should help educators adapt to changing educational landscapes and maintain high standards of teaching. A school district could offer regular professional development workshops on topics such as project-based learning, participatory teaching methods and the use of technology in sustainability

education, with a special focus on how non-formal education approaches can be adapted to formal classroom settings. This would provide educators with a range of strategies for promoting active, student-centred learning.

Case example 15 – An example of high-quality continuing professional development for educators[30]

Keywords: professional development, global citizenship, sustainability education, intercultural competences, international collaboration

At the University College of Leuven-Limburg (UCLL) in Belgium, a strategic priority is placed on engaging global citizens, as highlighted in its strategic plan. A key element of this strategy is the commitment to implementing SDG 4.7, which focuses on ESD and global citizenship. This demonstrates UCLL's dedication to fostering positive global impacts through its educational initiatives. UCLL recognises the importance of preparing its students, staff and alumni to actively contribute to building a sustainable, just society with strong social cohesion. In an increasingly diverse and interconnected world, UCLL emphasises the development of international and intercultural competences across all degree programmes. This approach is not limited to students but extends to UCLL's human resources policies, reflecting the institution's commitment to inclusivity and cultural understanding. Internationalisation is viewed as a crucial component of UCLL's educational mission. By fostering partnerships and collaborations with foreign institutions, UCLL aims to contribute to the achievement of the 17 United Nations SDGs. This case illustrates how UCLL integrates global citizenship and sustainability into its core values, ensuring that all stakeholders are equipped to navigate and influence the complexities of a super-diverse world.

The Council of Europe has developed a tool to assist educators' critical reflections on their own democratic, intercultural and human rights competences, and professional competences – the Teacher Reflection Tool (Council of Europe 2021c). This is intended to be a companion in the professional lives of educators. It can be used to familiarise oneself with the process of critical self-reflection, as a stimulus for continually reflecting on one's own competences, as a self-contained "course" in teacher education, as a tool to help structure educators' daily work, and for peer and team reflection. The tool is designed to help educators to structure their work by using a reflective cycle of planning, doing, reflecting and adapting, and it increases educators' capacity to improve their teaching activities and their pedagogical practice in general.

Non-formal educators often use similar reflective practices, offering valuable insights into how formal education teachers can adapt and refine their approaches to better meet the needs of diverse learners. By integrating non-formal education methods, formal education teachers can benefit from approaches that emphasise flexibility, learner autonomy and experiential learning, enhancing their ability to foster RFCDC-ESD competences in their students. This cross-pollination between non-formal and formal education can support a more holistic approach to teaching, equipping educators to create inclusive, participatory and innovative learning environments.

30. See UCLL (2025).

6.6.6. Educating all teachers and non-formal educators about RFCDC-ESD and the need for a cross-curricular and whole-school approach

To effectively foster a culture of sustainability, democratic engagement and human rights in education, it is essential that all educators, regardless of their disciplinary specialisations, understand how a WSA can lead to transformative change in the school environment. Within this framework, the cross-curricular approach plays a critical role in teaching by providing an integrated and comprehensive learning experience for students. Educators also need to be equipped with the knowledge and skills to implement the WSA and its components, such as cross-curricular teaching, in practice to achieve meaningful and sustainable educational transformation.

As we saw earlier, cross-curricular collaboration is important for enriching the learning experience of students. Teachers from different disciplines need to work together on interdisciplinary projects that allow students to explore sustainability and democratic engagement from multiple perspectives. In addition, a WSA is crucial for embedding RFCDC-ESD principles consistently throughout the educational environment, so that students receive a unified message about the importance of these principles, making it easier for them to internalise and apply them in their everyday lives. Policy makers can support this outcome by ensuring that all teachers receive training in how to implement both a cross-curricular approach and a WSA.

Case example 16 – An example of educators using a cross-curricular approach and a WSA together[31]

Keywords: cross-curricular approach, whole-school approach, sustainability education, democratic engagement, interdisciplinary collaboration

In Portugal, the Eco-Schools Programme at Escola Básica de Mafra exemplifies how a cross-curricular WSA can integrate both ESD and RFCDC while fostering teacher education and collaboration. As part of the programme, educators undergo professional development sessions to enhance their understanding of sustainability, democratic engagement and interdisciplinary teaching methods. These sessions focus on equipping teachers with the skills to design and implement cross-curricular projects. Teachers from various disciplines – such as science, social studies and language arts – collaborate on interdisciplinary projects that encourage students to explore sustainability and democratic engagement from multiple perspectives. One such project involves designing green energy solutions for the school. Science teachers guide students through renewable energy concepts, while social studies teachers help them understand the societal impact, and language arts teachers assist with report writing and presentations. The programme emphasises collaboration not only among teachers but also with the wider school community, including parents and local stakeholders. The entire school community, including local stakeholders, is engaged in the decision-making process, fostering civic-mindedness, co-operation skills and

31. See Agrupamento de Escolas de Mafra, ECO-ESCOLAS, available at www.aemafra.edu.pt/eco-escolas, accessed 18 May 2025.

responsibility. By combining teacher education, interdisciplinary collaboration and active participation from the school community, this holistic approach ensures that sustainability and democratic principles are embedded in both teaching practices and school operations.

6.6.7. Encouraging and supporting educators' agency and autonomy

Empowering educators with agency and autonomy is vital for them to effectively employ pedagogies and resources that address their learners' needs, concerns and interests, as well as the sustainability issues that are most relevant to their communities. This involves trusting teachers to make informed decisions about how best to integrate RFCDC-ESD principles into their teaching. Educators, who are closest to their students and communities, are best positioned to tailor their pedagogical strategies to address specific local issues and student needs. When teachers are given the freedom to innovate and adapt the curriculum and the teaching methods that they use, they are able to create more engaging and relevant learning experiences. For example, teachers can incorporate local examples, case studies and projects that resonate with their students.

Continuous professional development opportunities need to help educators build their confidence and skills to make their own autonomous decisions. Supportive leadership in schools is also critical for fostering teacher autonomy and innovation. School leaders should be provided with resources and training on how to create environments that encourage teacher-driven initiatives, empowering teachers to experiment with new teaching methods and take ownership of their classroom practices.

6.7. Teaching and learning resources for integrating RFCDC-ESD into education

Developing appropriate teaching and learning resources is vital for successfully integrating RFCDC-ESD into educational practices. This section outlines the key challenges and needs that are associated with these resources.

6.7.1. The current lack of suitable teaching and learning resources in RFCDC-ESD

Despite the increasing recognition of the importance of implementing both the RFCDC and ESD into education systems, there remains a significant shortage of suitable teaching and learning resources that can effectively support the process. This shortage presents a critical challenge for educators committed to embedding sustainability and democratic culture into their curricula.

The scarcity of appropriate RFCDC-ESD resources can be attributed to several factors. First, RFCDC and ESD are relatively new frameworks in many educational contexts. As a result, there has not been sufficient time for the development and dissemination of resources that align with these frameworks. Second, both RFCDC and ESD encompass complex, interdisciplinary topics that require materials to be developed across multiple subjects. Creating resources that address the interconnectedness of

sustainability, democratic and human rights principles coherently and practically is challenging. Third, educational systems, curricula and pedagogical approaches vary widely across different countries and regions. Resources that work well in one context may not be suitable in another, making it difficult to develop universally applicable materials. Lastly, without adequate professional development, teachers may lack the confidence and skills to create or adapt their resources to align with RFCDC-ESD principles. This lack of training exacerbates the shortage of ready-to-use materials.

Case example 17 – An example of how governments can intervene in order to produce suitable resources[32]

Keywords: digital resources, government intervention, curriculum development, interdisciplinary learning

Scotland's Curriculum for Excellence (CfE), which emphasises interdisciplinary learning and sustainability, faced challenges in its initial implementation phase. Teachers struggled to find appropriate resources that aligned with the curriculum's holistic approach. The introduction of the CfE required a shift towards more interdisciplinary and student-centred learning. However, teachers lacked access to materials that could facilitate this approach, particularly in integrating sustainability and democratic education. The Scottish Government, in collaboration with educational publishers and institutions, developed a range of resources to support the new curriculum. These included textbooks, lesson plans and digital tools (the Glow platform) that provided practical guidance for teachers. The production of tailored resources helped bridge the gap between curriculum expectations and classroom practice. Teachers were able to implement the CfE more effectively, resulting in a richer educational experience for students. Scotland's CfE integrates learning for sustainability in a cross-curricular approach, emphasising global citizenship, sustainability education and outdoor learning. Learning for sustainability is a core element of the CfE, and teachers' professional standards encourage educators to foster a socially just and sustainable society while working towards the UN SDGs. Overall, Glow and the CfE create a framework for empowering students and teachers through digital tools, sustainability education and democratic engagement, contributing to a holistic learning environment.

The current lack of suitable teaching and learning resources in RFCDC-ESD presents a significant challenge for educators aiming to integrate these principles into their curricula. Addressing this gap requires collaborative efforts between educational institutions, governments, NGOs, CSOs and publishers to develop comprehensive, relevant and practical materials that demonstrate the importance of producing tailored resources to support educators in effectively teaching sustainability and democratic culture.

32. See Curriculum for Excellence, Scotland's Curriculum for Excellence – Putting learners at the heart of education, available at https://scotlandscurriculum.scot, accessed 18 May 2025.

6.7.2. The need for curricular changes to be accompanied by the production of suitable teaching and learning resources

As case example 17 shows, for curricular changes to be effective and sustainable, they need to be supported by the development of appropriate teaching and learning resources. This is particularly true for integrating RFCDC-ESD into educational practices. Without suitable resources, educators are likely to struggle to implement new curricular goals, potentially leading to inconsistencies in teaching and learning outcomes.

Suitable teaching and learning resources must be aligned with curriculum goals (see Section 6.1.6 above). When curricula are revised to incorporate the principles of RFCDC-ESD, teaching and learning resources such as textbooks, lesson plans, worksheets and digital tools must be updated to align with the new curriculum content. Resources that provide practical examples, activities and projects help teachers realise the learning goals in classroom practice. This is especially important for complex interdisciplinary topics such as sustainability and democratic education, which require hands-on learning experiences. High-quality, well-designed resources ensure that all students receive a consistent and comprehensive education, regardless of their school or teacher. Furthermore, providing educators with ready-to-use materials reduces the burden of creating new content from scratch, allowing them to focus on delivering effective teaching. Standardised resources can help to maintain educational quality and equity across different regions and schools (bearing in mind that they also need to allow educators to tailor them to their own specific context and to the needs of their learners).

Policy makers can play a pivotal role in ensuring that comprehensive and high-quality teaching resources are developed and made available in line with new curricular frameworks. Governments should invest in the creation of standardised materials that align with RFCDC-ESD principles, especially in systems where curricular guidelines are more rigid. Additionally, policy makers could support collaboration between educational institutions, NGOs, CSOs and publishers to ensure the development of interdisciplinary, practical resources that address sustainability and democratic education.

6.7.3. Educators' need for professional support in their decision making concerning which teaching and learning resources to use

Educators are crucial in bringing the RFCDC-ESD framework into practice within their classrooms. In order to do this effectively, they need substantial professional support in selecting and utilising appropriate teaching and learning resources. Professional support systems are vital to help educators navigate the available materials, make informed decisions and apply these resources effectively to enhance student learning.

Educators need guidance to select resources that best align with their curriculum goals and the principles of RFCDC-ESD. Professional support helps educators identify high-quality, relevant resources that are pedagogically sound and culturally appropriate, ensuring the materials used are effective and engaging for students. Resources need to be adaptable to the specific needs and contexts of different schools and communities. Professional support can also provide educators with strategies to tailor resources to their unique classroom environments.

Virtual communities of practice can offer a platform for educators to share resources, exchange ideas and seek advice from their peers. These online communities facilitate collaborative learning and provide ongoing professional support. The platforms allow educators to share best practices, access a curated collection of resources and receive feedback from peers and experts.

Professional organisations and networks can also play a crucial role in providing educators with access to high-quality resources and professional development opportunities. These organisations often offer guidelines, recommendations and training to help teachers make informed decisions about resource selection.

In addition, collaboration between formal educational institutions (such as schools) and non-formal educational organisations (such as NGOs and CSOs) can provide valuable resources and support for educators. These partnerships facilitate the exchange of expertise and materials, enriching the educational experience.

Case example 18 – An example of how schools and educational NGOs can collaborate[33]

Keywords: school–NGO collaboration, sustainability education, democratic competences, professional development, community of practice

The Bildung für nachhaltige Entwicklung (BNE) (Education for Sustainable Development) initiative has successfully supported educators in implementing sustainable and democratic principles through collaboration with non-formal educational organisations and NGOs. In the German state of Baden-Württemberg, the BNE network has been instrumental in providing teachers with access to high-quality, sustainability-focused resources. The initiative involves partnerships between schools and local environmental NGOs, such as the German Environmental Foundation (Deutsche Bundesstiftung Umwelt), which offers workshops, webinars and resource kits. These materials help educators integrate sustainability into their curricula while promoting democratic competences such as civic-mindedness, co-operation skills, and analytical and critical thinking skills. The BNE initiative emphasises continuous professional development by providing virtual platforms where educators can share resources, discuss strategies and collaborate on classroom projects. This community of practice enhances educators' ability to select and adapt resources tailored to their specific classroom needs, aligning with sustainable and democratic principles. This structured professional support system in Germany ensures that teachers have the necessary guidance and resources to teach sustainability and democracy effectively, with partnerships between schools and NGOs being a central feature of this mode.

Workshops, webinars and conferences offer educators opportunities to learn about new resources, share experiences and receive professional development. These events provide a forum for educators to engage with experts and peers, enhancing their ability to select and use teaching materials effectively. These events can feature expert presentations, resource demonstrations and collaborative activities where

33. See Federal Ministry of Education and Research (2025).

educators can share their experiences and strategies. The workshops and webinars provide valuable professional support for educators, increasing their confidence and competence in selecting and using resources, leading to more effective implementation of RFCDC-ESD principles in their classrooms.

To ensure that educators receive the professional support that they need for making informed decisions regarding the selection and use of teaching and learning resources, policy makers should prioritise the development of structured professional support systems that offer educators access to high-quality, relevant teaching resources aligned with RFCDC-ESD principles.

Governments should collaborate with professional organisations, NGOs, CSOs and educational institutions to establish resource curation platforms, offering educators easy access to pedagogically sound materials. However, it is essential to recognise that the effectiveness of these initiatives will be closely tied to the working conditions of teachers and the time allocated to specific tasks within their workload. Teachers must be given sufficient time within their schedules to explore new resources, participate in professional development and engage with curated platforms. Without dedicated time for these activities, teachers may struggle to integrate RFCDC-ESD effectively into their classrooms, as competing demands on their time can hinder the ability to thoroughly evaluate and adapt new materials.

Funding should also be allocated for ongoing professional development opportunities, such as workshops, webinars and conferences, where educators could receive training on how to effectively select and adapt resources to their local context. In this regard, policies must ensure that teachers' workloads allow them to participate in professional development opportunities without overwhelming their schedules. Professional development should be seen not as an additional burden but as an integral part of teachers' responsibilities, with sufficient time and resources allocated to support their continuous growth and effective teaching practices.

In addition, the creation of structured communities of practice would provide teachers with valuable peer-to-peer learning opportunities. A European RFCDC-ESD community of practice could focus on sharing best practices, resources and case studies tailored to European education systems, while a global community would foster cross-cultural collaboration and access to a wider variety of educational strategies for sustainability and democracy. These communities, supported by virtual platforms, would offer educators the chance to connect, collaborate and learn from each other, while allowing for the adaptation of RFCDC-ESD principles to local contexts.

6.7.4. The need to develop resources and materials that can support learners in reflecting critically on their own behaviour and encouraging them to take action

To foster a generation of learners who are knowledgeable about sustainability and democratic principles and capable of reflecting on their own behaviour and taking meaningful action, it is also essential to develop teaching resources and materials that support these goals. These resources should encourage critical thinking, self-reflection and proactive engagement with sustainability and democratic issues.

Resources that stimulate learners to reflect critically on their behaviour help develop a deeper understanding of how individual actions can have an impact on the environment and society. Such reflection is crucial for fostering personal responsibility and ethical decision making. Additionally, resources should inspire learners to take individual and collective action, ranging from small personal initiatives to larger community projects. Teaching materials should equip learners with the skills needed to advocate for sustainability, democracy and human rights, including linguistic and communicative skills and co-operation skills. Facilitating projects and campaigns that are led by young people empowers them to take ownership of their learning and become active participants in addressing sustainability challenges, fostering a sense of agency and leading to more impactful and lasting change.

Case example 19 – An example of how young people can be empowered to take action[34]

Keywords: empowerment, sustainability education, civic engagement, democratic participation

The Global Schools Project in Tuscany, Italy, is a powerful example of how young people can take meaningful action in their communities when supported by well-developed teaching resources and materials. As part of this EU-funded initiative, students from various schools in Tuscany are empowered to address local environmental challenges such as waste management and renewable energy through interdisciplinary, student-led projects. Students are actively involved in researching and investigating sustainability issues affecting their communities. They engage with local experts and community members to understand the challenges and potential solutions. The project provides students with resources that enhance their understanding of sustainability issues and equip them with tools for effective advocacy and community engagement. Resources include campaign planning guides, research materials and evaluation tools, which help students critically reflect on their own behaviours and develop strategies for meaningful action. With these resources, students can research and investigate local sustainability issues, engage with local experts and collaborate with community members to explore solutions. Students participate in debates and discussions about environmental policies and later present their findings to local authorities, fostering a sense of civic responsibility and critical thinking. Through this process, young people develop essential competences such as co-operative skills and civic-mindedness, which empower them to take action. The project emphasises the importance of democratic engagement, as students contribute to local decision-making processes and propose real-world solutions for sustainability. The initiative demonstrates how combining sustainability education with democratic competences can prepare young people to be proactive citizens who engage with and improve their communities.

Sustainability projects that are led by young people worldwide demonstrate the importance of providing resources that support critical reflection and action, empowering learners to take ownership of their learning and contribute to sustainable

34. See Development Education and Awareness Raising (n.d.).

development. Educational organisations have created resource kits that include campaign planning guides, advocacy training materials and evaluation tools, helping learners identify local environmental challenges, develop campaign strategies and measure the impact of their actions. They enable learners to launch successful environmental campaigns, such as promoting urban gardening and reducing plastic waste. These projects encourage learners to reflect on their behaviour, engage with their community and advocate for sustainable practices, fostering a sense of agency and leadership among students.

Addressing eco-anxiety among learners and fostering their resilience and environmental action is essential for promoting mental well-being and proactive engagement with sustainability challenges. Eco-anxiety, or the chronic fear of environmental doom, is increasingly affecting young people (see Section 3.2). This anxiety can be paralysing and counterproductive, hindering learners' ability to engage positively with sustainability challenges. It is crucial to develop resources and materials that help schools and educators address eco-anxiety, foster resilience and promote proactive environmental action among learners. As noted above (in Section 4.1), empowering learners to become environmental advocates by providing resources that help them engage in advocacy and action is one of the major ways in which education can help to combat eco-anxiety.

Where students experience eco-anxiety, schools should also consider introducing programmes that combine mindfulness exercises with solution-based sustainability education. This approach, which emphasises solutions rather than focusing solely on problems, can help students feel empowered to address environmental challenges actively. Programmes might include guided meditation sessions, reflective journaling activities and project-based learning modules centred on actionable environmental solutions. The combination of mindfulness practices with active collective engagement on environmental and sustainability challenges can help students manage their eco-anxiety and develop a more balanced perspective on these challenges.

6.8. Digital literacy and artificial intelligence integration with RFCDC-ESD

Integrating digital literacy and artificial intelligence (AI) into education provides powerful opportunities for both students and educators to develop RFCDC-ESD competences, equipping them to thrive in a digitalised, democratic and sustainable society. As outlined in the Council of Europe's Recommendation CM/Rec(2019)10 of the Committee of Ministers to member states on developing and promoting digital citizenship education (Council of Europe 2019a), digital literacy enables individuals to navigate online environments safely, critically and responsibly, supporting democratic engagement and fostering a commitment to sustainable practices.

Digital literacy is crucial for promoting digital citizenship, which the Council of Europe defines as the capacity to actively participate in society through digital means in ways that respect democratic values, human rights and social responsibilities. By cultivating digital literacy skills, students become empowered to critically evaluate online information, make informed decisions and actively participate in community discussions on social and environmental issues. Internet literacy frameworks and

resources (Council of Europe 2019b; Kivinen et al. 2022) provide educators with the tools to promote ethical and active digital participation. This approach aligns with the RFCDC's goal of preparing students to function as competent and responsible digital citizens, thereby supporting democratic culture across online and offline spheres.

6.8.1. Resilience against misinformation, disinformation and malinformation in the digital age

Developing resilience to misinformation, disinformation and malinformation is essential in the digital age, as it supports critical democratic competences such as analytical thinking and critical understanding. According to Recommendation CM/Rec(2019)10, "reliable information sources are essential for positive active participation in community life" (Council of Europe 2019a: 6), underscoring the importance of digital literacy in discerning credible information. Teaching students how to evaluate the reliability of information and identify biases in digital content supports RFCDC-ESD competences, allowing learners to participate more effectively in democratic processes while advocating for sustainability.

6.8.2. AI-enhanced personalised learning for RFCDC-ESD

Recommendation CM/Rec(2019)10 observes that AI can support adaptive learning experiences, enabling individualised educational pathways that nurture democratic and sustainability competences. AI-driven tools can provide educators and students with targeted resources and activities related to RFCDC-ESD, allowing for a deeper, personalised engagement with topics like climate change, resource management and civic and democratic participation. Such approaches not only bolster individuals' understanding of sustainability issues but also reinforce RFCDC competences, including critical thinking, co-operation skills and the use of values. AI further enhances learning by enabling personalised education and the development of critical competences, including problem solving, collaboration and responsible citizenship

6.8.3. Pros and cons of integrating digital literacy and AI in ESD and the RFCDC

The advantages of integrating digital literacy and AI in ESD and the RFCDC include:

- digital literacy and AI make learning more interactive and relevant to real challenges, directly supporting RFCDC-ESD objectives by providing practical, hands-on learning experiences;
- AI supports tailored educational experiences, meeting individual needs and reinforcing democratic and sustainability competences by allowing students to engage with issues of personal and social relevance;
- digital literacy promotes equity by ensuring all students have the opportunity to engage in digital spaces responsibly and safely, enabling democratic and sustainable practices.

The disadvantages of integrating digital literacy and AI in ESD and the RFCDC include:

- AI applications often require data collection, raising privacy concerns. As the Recommendation CM/Rec(2019)10 of the Committee of Ministers to member

States on developing and promoting digital citizenship education stresses, "security infrastructure" and responsible data practices are essential to protect student information and privacy in AI-enhanced learning environments;

- not all students have equal access to digital tools, potentially widening educational disparities – addressing this digital divide is crucial to ensure fair integration of digital literacy and AI in RFCDC-ESD contexts;
- excessive dependence on AI tools may reduce face-to-face interactions and limit opportunities for developing interpersonal competences essential to democratic culture.

In conclusion, integrating digital literacy and AI with the RFCDC and ESD enriches educational approaches by preparing students to address sustainability and democratic challenges. Following the Council of Europe's guidelines will help educators align these technologies with ethical and democratic principles, equipping students with the skills needed to participate responsibly and effectively in the digital age.

6.9. Investing in green jobs, education and green skills through RFCDC-ESD

Green jobs demand technical expertise alongside democratic competences like civic-mindedness, critical thinking and co-operation skills. Formal and non-formal education frameworks, such as project-based learning, initiatives led by young people and community partnerships, provide dynamic methods to develop these competences. Recognising the value of skills gained through environmental activism ensures young people can transition effectively into the labour market or further education, leveraging experiences that promote responsibility and empathy.

The Council of Europe's Recommendation CM/Rec(2024)6 (Council of Europe 2024a) emphasises the need to equip young people with the skills and competences required for green jobs and climate action. Integrating these measures with the RFCDC-ESD principles offers a comprehensive approach to fostering sustainability, democracy and active citizenship in education. The recommendation also highlights the importance of a just transition, preparing young people for emerging green roles by focusing on adaptability, flexibility and resilience. Investments in green entrepreneurship and research further empower young people to innovate in areas such as sustainable technology and climate solutions, fostering creativity and problem solving aligned with democratic values like justice and equality.

Ensuring inclusion is critical, with targeted support for disadvantaged, marginalised and vulnerable young people to access climate-related education and green economic opportunities. By embedding competences such as valuing diversity, valuing justice and fairness, and openness to otherness, education systems can foster equitable participation in the green transition.

Integrating green skills, education and jobs with RFCDC-ESD creates opportunities for young people to address environmental challenges while contributing to a sustainable, equitable and democratic future. This approach ensures that learners are equipped not only with technical capabilities but also with the values and attitudes needed to lead in a rapidly evolving green economy.

Section 7 – Recommendations for implementation

This section contains recommendations for the three main audiences of this guidance document: education policy makers, educators from the pre-primary to secondary school levels and non-formal education educators working with learners of all ages. These recommendations, which build primarily on Section 6, address a wide range of needs and strategies, including curriculum policies, teacher training, pedagogical innovation, collaboration, assessment and localisation. Implementation of these recommendations will result in inclusive and effective education policies and practices that will engage and activate learners, strengthen civic action and democracy, and ultimately make a positive contribution to sustainability. Education policy makers and practitioners should select those recommendations that are most relevant and feasible to implement within their own educational and institutional contexts.

7.1. For education policy makers

Education policy makers include those operating at different levels (local, subnational, national, international), including schools, municipalities, regions and states. They include policy makers, policy interpreters, policy enactors, and those in advisory roles and other critical roles influencing intended, implemented and achieved curricula, pedagogical practices, and the forms of assessment that are used. These individuals design and support policies related to curriculum frameworks, a whole-school approach to ESD, teacher education, pedagogies, assessment requirements, and the development of teacher and learning resources. The recommendations for education policy makers are presented by different policy areas.

Prioritise RFCDC-ESD

- Ensure that all relevant government ministries and public agencies recognise the importance of education and learning for sustainable development.
- Integrate RFCDC-ESD competences into existing action plans as an intrinsic part of teaching and learning, as well as into teacher education.
- Collaborate with other governmental and non-governmental and civil society actors (including the private sector) in guaranteeing sufficient funding and human resources for implementation of RFCDC-ESD in both the formal and non-formal sectors.
- Promote the implementation of ESD in schools through a WSA, encouraging networking across schools, sustainability projects and community-based learning initiatives with partners.
- Recognise the valuable contributions of NGOs and CSOs in supporting ESD through field experiences and innovative teaching and learning materials.

Design and implement curriculum policy

- Audit the prescribed policies and curricula to identify where and how existing RFCDC-ESD competences are included, and where necessary changes to the current curricula might take place to ensure that all 20 competences are effectively taught.

- Ensure the inclusive participation of formal, non-formal and informal education organisations, and of young people, in the design, implementation and monitoring of RFCDC-ESD plans designed to be sensitive to the local context.
- Prioritise systematic and significant integration of RFCDC-ESD into national curricula across all subjects and grade levels, ensuring tangible results for education professionals, students and other stakeholders.
- Use the RFCDC-ESD as a basis to ensure transformative learning methods are employed to foster learners' competences for human rights, democratic culture, intercultural dialogue and active civic engagement. These may include innovative digital technologies as well as links with "green skills" and "green jobs".
- In collaboration with schools and other institutions, including private sector organisations, develop strategies and support to help parents, school boards and the broader community to value and engage directly with RFCDC-ESD.
- Establish standards, tools and processes to monitor progress, evaluate outcomes and implement mechanisms to promote continuous improvement of RFCDC-ESD both inside and outside the classroom that ensures alignment with the needs of the community.
- Foster collaborative networks and research with teachers both within and across European countries to seamlessly bridge research with practical implementation and ensure diverse perspectives in teacher education.

Link to the local context

- Ensure that RFCDC-ESD has curricular flexibility in addressing environmental and sustainability issues most relevant for local contexts.
- Promote local-focused, project-based learning approaches with learners in order to help offset anxiety associated with climate change.
- Promote connections with nature and local green spaces.
- Enhance the voices and values of Indigenous peoples in stewardship of the environment.
- Promote and support school partnerships with local municipal and NGO/CSO partners relevant for RFCDC-ESD.
- Promote critical research focusing on the localisation of SDGs in the context of local communities, encouraging a deep understanding of values and attitudes within the context of RFCDC-ESD.

Work with disadvantaged, marginalised and vulnerable populations

- Ensure accessibility of RFCDC-ESD to all young people, including those who are disadvantaged and marginalised, and those without digital access.
- Encourage the identification of populations especially vulnerable to the impacts of climate change, at the local, national and global levels, with attention to historic inequalities and vulnerabilities.
- Construct crisis management plans as well as strategies for long-term sustainability with learners who are negatively affected by climate change and experiencing a disruption in schooling.

Integrate within initial and in-service teacher training

- Include RFCDC-ESD competences as part of required learning outcomes for all professional qualifications in education, both initial and in-service, and including educators and school leaders.
- Review teacher education and training courses in order to systematically integrate RFCDC-ESD, enhancing the relevance, meaningfulness and quality of existing subjects through their incorporation.
- Prepare educators to critically understand and implement RFCDC-ESD using participatory, experiential, action-oriented and transformative approaches, emphasising engagement, active learning and reflective teaching practices.
- Implement strategies for promoting the capacities of school leaders to systematically embed RFCDC-ESD principles across all levels, including curriculum, pedagogy and assessment, and to introduce a WSA to RFCDC-ESD.
- Integrate digital citizenship education into teacher training – including online learning environments and communities of practice – emphasising responsible online civic engagement with a focus on sustainability.
- Provide support to schools and educators in addressing sensitive topics within the field of RFCDC-ESD that are linked with human rights, democratic societies and cultural diversity and aimed at fostering a culture of respect and understanding.
- Encourage and support the role of non-formal ESD educators in teacher education.
- Facilitate global collaboration initiatives, such as connecting classrooms with counterparts in different countries, to broaden teacher educators' perspectives and promote human rights, global citizenship, and sustainability concepts and principles.

7.2. For educators at the pre-primary, primary and secondary school levels

ESD can be carried out by educators at the pre-primary, primary and secondary school levels. Other actors included here are assistant teachers, special educators, classroom practitioners, heads of department, curriculum leaders, education office staff and school principals. All subject teachers are included, so that RFCDC-ESD can be integrated into every subject in a cross-curricular approach.

Adopt relevant pedagogy

- Adopt transformative pedagogies such as project-based, inquiry-based, co-operative and service learning to engage students in real-world sustainability issues and support their capacities for undertaking both individual and collective action on sustainability issues.
- Incorporate critical thinking exercises that encourage learners to analyse and evaluate information, fostering independent thought and a deeper understanding of human rights, democratic principles, sustainability and civic engagement.

- Implement hands-on, community-based projects, including service-learning projects, that connect curriculum content with real-world issues such as climate change and also address community needs and foster civic engagement.
- Ensure that sufficient attention is paid to the needs of disadvantaged, marginalised and vulnerable groups in relation to sustainability.
- Address mental health concerns by integrating resilience-building strategies into sustainability education to help students manage eco-anxiety.

Design curriculum

- Collaborate with teachers from different disciplines to recognise and strengthen existing ESD practices, including the design of interdisciplinary projects that explore human rights, democratic and intercultural values and attitudes, civic engagement and competences for RFCDC-ESD. Such efforts will be in accordance with the degree of autonomy that educators have in their own education system to develop curriculum.
- As feasible, address controversial and sensitive topics related to sustainability that will develop the capacities of learners to think critically about "hot topics", formulate arguments and make use of evidence.
- Foster partnerships with local businesses, community organisations and institutions to provide learners with real-world experiences related to democratic culture, civic engagement and sustainable development.

Implement in the classroom

- Foster an open classroom climate using open dialogue and respectful debate, encouraging learners to express diverse opinions on civic, political and sustainability-related topics.
- Leverage technology to facilitate civic engagement, utilising online platforms for discussions, collaborative projects and information sharing related to democratic and sustainability issues.
- Develop and enhance democratic and participatory structures within education institutions to establish and maintain a democratic culture that aligns with the principles and values of the RFCDC.

Integrate appropriate assessment

- Integrate appropriate assessment practices into teaching and learning, ensuring alignment with the principles of RFCDC-ESD and utilising assessment as a tool to promote learners' democratic and intercultural values and attitudes and understanding of sustainability concepts, principles and issues.
- Consider developing accountability measures at the school level, for example, with a team composed of community members (e.g. teachers, students, parents) invested in a a school-wide approach to RFCDC-EDC.

Participate in ongoing professional development

- Actively engage in ongoing professional development, such as workshops and learning communities (including virtual ones), to stay updated on the latest methods and resources for RFCDC and ESD integration.
- Collaborate with fellow educators to share strategies for integrating human rights, democratic values and attitudes, sustainability and civic engagement, and foster a culture of peer observations and feedback within the school to enhance teaching practices in these areas.

7.3. For non-formal educators working with learners of all ages

Non-formal educators include those who work in public institutions but do not have a formal education role (e.g. educators of after-school programmes), NGOs, CSOs, leisure-time organisations (e.g. Scouts), youth workers, professional associations, libraries and museums. In addition to the recommendations for educators in the preceding section on pedagogy, curriculum design, implementation and assessment, the following recommendations are offered for educators working in non-formal education settings.

- Promote lifelong learning by providing opportunities for learners of all ages and backgrounds to engage with sustainability and democratic principles through flexible, inclusive educational programmes.
- Organise and promote genuine learner-initiated and learner-led activities that address local, national, regional and global challenges associated with sustainable development.
- Initiate and support community engagement projects that allow learners to apply human rights and democratic principles and contribute to sustainable development within their communities.
- Seek out diverse educational settings to carry out ESD based on the RFCDC, such as museums, local government offices, private companies and digital partners.
- Make use of parks and recreational areas to provide access to nature, and ensure that such opportunities are enjoyed by disadvantaged and marginalised groups who may not traditionally use such spaces.
- Collaborate with educators, schools and others interested to promote ESD in offering quality and place-based sustainability education linked with the RFCDC.
- Share experiences and different pedagogical methods with formal education teachers to enhance quality education for democracy, human rights and sustainable development.
- Collaborate with community leaders, NGOs, CSOs and grassroots organisations to align educational initiatives with community needs, emphasising human rights, democratic values and attitudes, and sustainability.
- Advocate for ESD with education policy makers and other stakeholders.
- Promote the role of young people in influencing policy makers and educators in designing and implementing ESD based on the RFCDC.

Part III

Resources

Section 8 – Resources

This section provides a list of open access resources that are available to support the implementation of the RFCDC, a list of other useful open access resources that can be readily adapted to support the implementation of ESD based on the RFCDC and a list of additional open access resources that are available to support the implementation of ESD more generally.[35]

8.1. Open access resources that are available to support the implementation of the RFCDC

Since the publication of the three volumes of the RFCDC in 2018, further resources have been produced by the Council of Europe to support the implementation of the RFCDC in the member states. These are as follows.

- A guidance document on how the RFCDC can be implemented in higher education:
  - Council of Europe (2020b), *Reference Framework of Competences for Democratic Culture (RFCDC): guidance document for higher education*, Council of Europe, Strasbourg, available at https://rm.coe.int/rfcdc-guidance-document-for-higher-education/1680a08ee0.
- A guidance document explaining the importance of the language abilities of learners when they are being educated using the RFCDC:
  - Council of Europe (2020c), *Reference Framework of Competences for Democratic Culture (RFCDC): competences for democratic culture and the importance of language*, Council of Europe, Strasbourg, available at https://rm.coe.int/prems-007021-rfcdc-competences-for-democratic-culture-and-the-importan/1680a217cc.
- A guidance document exploring how the RFCDC can be used in Vocational Education and Training (VET), offering suggestions on how to implement the RFCDC using an integrated approach:
  - Council of Europe (2024b), *Guidance document for vocational education and training*, Council of Europe, Strasbourg, available at https://rm.coe.int/prems-056824-gbr-2511-contextualising-competences-for-democratic-cultu/1680b19f84.

35. All URLs were accessed 18 May 2025.

- A more specialised set of RFCDC descriptors for use with learners aged 9 years or younger:
  - Council of Europe (2021b), *Descriptors of competences for democratic culture for young learners*, Council of Europe, Strasbourg, available at https://rm.coe.int/descriptors-of-competences-for-democratic-culture-for-young-learners/1680a526aa.
- A teacher reflection tool, which is designed to encourage and support teachers in reflecting critically on their own democratic, intercultural and professional competences:
  - Council of Europe (2021c), *Reference Framework of Competences for Democratic Culture: teacher reflection tool*, Council of Europe, Strasbourg, available at https://coe.int/en/web/reference-framework-of-competences-for-democratic-culture/-reflection-tool,for-teachers.
- A book-length treatment of how learners' proficiency in each of the 20 RFCDC competences can be assessed – this book also provides descriptions and concrete examples of 12 different assessment methods that are currently used in the Council of Europe's member states:
  - Council of Europe (2021a), *Assessing competences for democratic culture: principles, methods, examples*, Council of Europe, Strasbourg, available at https://rm.coe.int/prems-005521-assessing-competences-for-democratic-culture/1680a3bd41.
- Two RFCDC portfolios that can be used for teaching, learning and assessing proficiency in the 20 competences – a standard version for use by learners aged 11 years and older and a younger learners version for use by learners up to the age of 10 years:
  - Council of Europe (2021d), *A portfolio of competences for democratic culture: younger learners version*, Council of Europe, Strasbourg, available at https://coe.int/en/web/reference-framework-of-competences-for-democratic-culture/portfolios;
  - Council of Europe (2021e), *A portfolio of competences for democratic culture: standard version*, Council of Europe, Strasbourg, available at https://coe.int/en/web/reference-framework-of-competences-for-democratic-culture/portfolios.
- Three volumes of the *Autobiography of intercultural encounters*, fully aligned with the RFCDC, which can be used to promote the intercultural competences of learners (e.g. openness, respect, empathy, communicative skills, flexibility), by supporting learners' critical reflections on intercultural encounters that they themselves have experienced either face-to-face, through visual media or through the internet – these three volumes are accompanied by a fourth volume that discusses the policy context and the theoretical and conceptual background of the three autobiographies:
  - Council of Europe (2022), *Autobiography of intercultural encounters* (2nd edn), Council of Europe, Strasbourg, available at www.coe.int/en/web/education/-/new-isbn-publications-autobiographies-of-intercultural-encounters;

- Council of Europe (2022a), *Autobiography of intercultural encounters through visual media* (2nd edn), Council of Europe, Strasbourg, available at www.coe.int/en/web/education/-/new-isbn-publications-autobiographies-of-intercultural-encounters;
- Council of Europe (2022b), *Autobiography of intercultural encounters through the internet* (2nd edn), Council of Europe, Strasbourg, available at www.coe.int/en/web/education/-/new-isbn-publications-autobiographies-of-intercultural-encounters;
- Council of Europe (2022c), *Autobiography of intercultural encounters: context, concepts and theories* (2nd edn), Council of Europe, Strasbourg, available at www.coe.int/en/web/education/-/new-isbn-publications-autobiographies-of-intercultural-encounters.

- A manual for an introductory teacher training course on the RFCDC contains session plans together with aims, objectives, outcomes, resources required and step-by-step procedures for teaching each session:
  - Council of Europe (2023a), "Manual of the Reference Framework of Competences for Democratic Culture introductory course", Council of Europe, Strasbourg, available at https://rm.coe.int/prems-064423-gbr-2508-manual-of-the-rfcdc-introductory-course-a4-web/1680ac160f.

- **Global education guidelines** is a comprehensive tool, based on the RFCDC, to support educators in understanding and implementing global education, developed as a part of the Global Education programme by the North-South Centre of the Council of Europe:
  - North-South Centre of the Council of Europe (2019), "Global education guidelines – Concepts and methodologies on global education for educators and policy makers", North-South Centre of the Council of Europe, Lisbon, available at https://rm.coe.int/prems-089719-global-education-guide-a4/1680973101.

- A document published by the DARE Network explores how the RFCDC may be implemented in various settings of co-operation between formal and non-formal education:
  - Hladschik P., Lenz C. and Pirker G. (2020), "The Reference Framework of Competences for Democratic Culture in the non-formal educational sector", DARE – Democracy and Human Rights Education in Europe, Brussels, available at https://dare-network.eu/competences-for-democratic-culture-and-non-formal-education.

- "Children's voices for a new human space" (CVS) was an ERASMUS+ project that ran from 2018-21. It developed a range of materials that can be used to promote learners' democratic and intercultural competences in primary education. The project was based on the RFCDC, and the materials consist of an RFCDC training course for primary school teachers and an RFCDC curriculum for learners in primary education:
  - CVS (2021), **Children's voices for a new human space**, available at www.cvs-project.eu.

8.2. Other useful open access resources that can be readily adapted to support the implementation of RFCDC-ESD

- A Council of Europe training pack which provides a professional development programme for teachers that is designed to support and promote the teaching of controversial issues in schools:
  - Council of Europe (2015a), **Living with controversy – Teaching controversial issues through Education for Democratic Citizenship and Human Rights (EDC/HRE): training pack for teachers**, Council of Europe, Strasbourg, available at https://theewc.org/resources/living-with-controversy-teaching-controversial-issues-through-education-for-democratic-citizenship-and-human-rights-edc-hre.
- A guide that builds on the 2015 manual on teaching controversial issues and offers practical support to school leaders and senior managers on how to proactively manage and react to controversial issues in and beyond the school:
  - Council of Europe (2017), **Managing controversy – Developing a strategy for handling controversy and teaching controversial issues in schools: a self-reflection tool for school leaders and senior managers**, Council of Europe, Strasbourg, available at https://theewc.org/resources/managing-controversy.
- A guide which captures the rich learning that has emerged from the use of the two preceding manuals – **Living with controversy** and **Managing controversy** – as they have been taken up and used by a range of professionals and institutions involved in education and training in countries and contexts across Europe:
  - Council of Europe (2020a), *Learning how to handle controversial issues in schools and other education settings – A good practice guide: using the manuals Teaching controversial issues and Managing controversy*, Council of Europe, Strasbourg, available at https://rm.coe.int/learning-how-to-handle-controversial-issues-in-schools-and-other-educa/1680a12734.
- A manual that can be used for training practitioners in both formal and non-formal education. It contains a set of 60 activities that can be used for developing practitioners' competences for democratic culture:
  - Council of Europe (2015b), **TASKs for democracy**, Council of Europe, Strasbourg, available at https://coe.int/en/web/learning-resources/-/tasks-for-democracy.
- A manual for HRE with young people. It contains concrete ideas and practical activities to engage, involve and motivate young people in acting for human rights:
  - Council of Europe (2023b), *COMPASS: manual for human rights education with young people* (2nd edn), Council of Europe, Strasbourg, available at https://coe.int/en/web/compass.
- A resource for educators, teachers and trainers who wish to engage in HRE with 7- to 13-year-old children. It contains 42 practical activities that can be used to engage and motivate children to recognise human rights issues in their environment:

  - Council of Europe (2007), *Compasito: manual on human rights education for children*, Council of Europe, Strasbourg, available at https://theewc.org/resources/compasito-manual-on-human-rights-education-for-children.

- A set of six books, freely available in multiple languages, designed to offer concrete teaching models and materials that can be used for teaching EDC and HRE to learners from primary to upper secondary level:
  - Council of Europe, PHZH and Canton of Zurich IPE (2025), **Living & learning democracy in schools and at home**, available at www.living-democracy.com.

- The **Democratic Schools Network** (DSN) was set up by the Council of Europe in 2018. It aimed to support schools across Europe in building and maintaining democratic culture and to identify successful projects and practices that can be used to promote learners' competences for democratic culture through practical activities and projects. Details of the projects that were developed and run by the schools that joined the DSN are available here:
  - Council of Europe, **Members and school projects**, Council of Europe, available at https://coe.int/en/web/campaign-free-to-speak-safe-to-learn/schools-projects.

8.3. Open access resources that are available to support the implementation of ESD[36]

- The **Sustainability education in the Nordic countries** report presents five inspiring examples of how educational institutions in the Nordic region are integrating sustainability into their curricula and operations. These case studies highlight innovative approaches to teaching and implementing sustainable practices within schools. The report is available in English:
  - https://pub.norden.org/nord2024-038/5-inspiring-examples-.html.

- The **citized toolkit** is a resource developed by OBESSU to promote the WSA to citizenship education. It emphasises the role of school students in fostering active citizenship within educational institutions. The toolkit is available in English:
  - https://obessu.org/resources/documents/obessu-publications/democracy-at-school-guidelines-and-toolbox-for-a-whole-school-approach-in-citizenship-education.

- The **Association for Citizenship Teaching** (ACT) is a UK-based organisation dedicated to supporting educators in delivering high-quality citizenship education. Their website offers a range of resources, including lesson plans, articles and guidance materials, to assist teachers in integrating citizenship topics into their curricula. These resources are primarily available in English:
  - www.teachingcitizenship.org.uk.

36. The links provided are open access. If there is any issue viewing them directly, you can copy and paste them into a new browser tab.

- The **Best practices: whole institution approach (WIA) to sustainability** report, developed under the SUSEDI project, presents a comprehensive analysis of effective strategies for integrating sustainability into educational institutions. The report is available in English on the SUSEDI website:
  - https://mmclearningsolutions.com/eu-projects/susedi/.
- The **Systemic framework to achieve sustainable educational institutions through the whole institution approach** is a comprehensive guide developed under the SUSEDI project. It outlines strategies for educational institutions to integrate sustainability into their organisational, social and pedagogical structures. The framework emphasises a holistic transformation, encouraging institutions to adopt sustainable practices across all facets of their operations. The document is available in English on the SUSEDI website:
  - https://www.mmclearningsolutions.com/eu-projects/susedi/.
- The **Mastering the sustainability competence for educational institutions** e-learning platform, developed under the SUSEDI project, offers comprehensive resources to assist educators in integrating sustainability into their institutions. The platform provides courses in multiple languages, including English, Greek, Italian, Spanish and Polish:
  - https://elearn-susedi.projectsgallery.eu.
- The **Speak out for her world** advocacy toolkit is designed to empower girls and young women to initiate their own advocacy campaigns, providing guidance on understanding and engaging in advocacy efforts. The toolkit is available in English, French, Spanish and Arabic:
  - www.wagggs.org/en/resources/advocacy-toolkit-speak-out-her-world.
- The project **Tink@School** envisages using tinkering as an engaging experiential method to unlock students' creativity and support teachers and schools in their efforts to design and apply meaningful interventions on sustainability and climate change topics. The project's resources are available in multiple languages, including English, Greek, Dutch, Italian and Icelandic:
  - https://tinkeringschool.eu.
- The **Inspiring projects** section on the Scouts for SDGs platform showcases a diverse array of initiatives led by young people that are aligned with the SDGs. Users can explore projects by SDG, topic, language and country, providing a comprehensive view of global Scouting efforts. The platform is available in multiple languages, including English, French, Spanish and Arabic:
  - https://sdgs.scout.org/projects.
- The **Leader home** section on the Scouts for SDGs platform provides Scout leaders with resources and initiatives to inspire and guide Scouts in areas such as environmental action, peacebuilding, innovation and health. The platform is available in multiple languages, including English, French, Spanish and Arabic:
  - https://sdgs.scout.org/leader.

- The **Choose your activity** section on the Scouts for SDGs platform offers a variety of activities designed to engage Scouts in achieving the SDGs. The platform is available in multiple languages, including English, French, Spanish and Arabic:
  - https://sdgs.scout.org/explore/activity-types.
- **PULCHRA** is a European Union-funded project with partners from 10 nations. It encourages and supports students in urban schools to investigate environmental and sustainability issues in their localities with a focus on the topic "Cities as urban ecosystems". All challenges are linked with one or more UN SDGs. The resources are available in Czech, Greek, German, English, Italian, Latvian, Polish, Romanian and Swedish:
  - https://platform.pulchra-schools.eu/supporting-tools/e-lessons.
- **Urban Science** is delivering a means to teach pupils how science can develop solutions for sustainable cities, motivating them to view the positive benefits of science to the urban environment. The project is available in multiple languages, including Polish, Bulgarian, Latvian, Italian, English and Hungarian:
  - https://urbanscience.eu.
- The **Experiential learning on environment and climate change for science teachers** project aims to enhance science educators' skills in delivering curricula that integrate environmental and climate change topics through hands-on learning experiences. This initiative is available in English:
  - www.rec.org.mk/en/experiential-learning-on-environment-and-climate-change-for-science-teachers.
- **Growing greening training modules: aligning VET curricula to greening and the Sustainable Development Goals** provides modular training materials aimed at integrating environmental sustainability into VET curricula. It is available in English:
  - https://www.greenvet4sdg.eu/.
- The **Klimadapt** portal is an informational and educational platform designed to disseminate knowledge and provide training for students, teachers and the general public on climate change adaptation and mitigation. Developed within the framework of the **Changing with climate** project, it offers a variety of materials, including texts, videos, lesson plans, dilemmas, model stories, worksheets, experiments, tests, games and instructions for organising actions. These resources aim to facilitate educational processes and activities related to addressing and adapting to ongoing climate changes. The portal is available in both English and Bulgarian:
  - www.klimadapt.org.

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Appendix

Table A – Mapping the UNESCO cross-cutting competences[37] onto the RFCDC competences

UNESCO cross-cutting competences	RFCDC competences onto which the UNESCO competences map
Systems thinking competency: the ability to recognise and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty.	Analytical and critical thinking skills; knowledge and critical understanding of economies, the environment and sustainability; tolerance of ambiguity.
Anticipatory competency: the ability to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.	Analytical and critical thinking skills; tolerance of ambiguity; flexibility and adaptability; civic-mindedness; responsibility; self-efficacy; knowledge and critical understanding of economies, the environment and sustainability.
Normative competency: the ability to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.	Analytical and critical thinking skills; knowledge and critical understanding of the self; knowledge and critical understanding of language and communication; linguistic, communicative and plurilingual skills; co-operation skills; conflict-resolution skills; critical understanding of economies, the environment and sustainability; tolerance of ambiguity.
Strategic competency: the ability to collectively develop and implement innovative actions that further sustainability at the local level and further afield.	Autonomous learning skills; self-efficacy; co-operation skills; conflict-resolution skills; empathy; knowledge and critical understanding of language and communication; linguistic, communicative and plurilingual skills; knowledge and critical understanding of economies, the environment and sustainability.

37. The list of UNESCO cross-cutting competences is taken from: UNESCO (2017: 10).

Collaboration competency: the ability to learn from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.	Openness to cultural otherness and to other beliefs, world views and practices; respect; empathy; skills of listening and observing; co-operation skills; conflict-resolution skills; knowledge and critical understanding of language and communication; linguistic, communicative and plurilingual skills; analytical and critical thinking skills.
Critical thinking competency: the ability to question norms, practices and opinions; to reflect on own one's values, perceptions and actions; and to take a position in the sustainability discourse.	Analytical and critical thinking skills; knowledge and critical understanding of the self; knowledge and critical understanding of economies, the environment and sustainability.
Self-awareness competency: the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.	Analytical and critical thinking skills; flexibility and adaptability; knowledge and critical understanding of the self.
Integrated problem-solving competency: the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development, integrating the above-mentioned competences.	Analytical and critical thinking skills; knowledge and critical understanding of economies, the environment and sustainability; civic-mindedness (as well as all of the other competences listed above that are associated with all of the above-mentioned ESD competences).

Table B – Mapping the GreenComp competences[38] onto the RFCDC competences

GreenComp competences	RFCDC competences onto which the GreenComp competences map
Valuing sustainability: the ability to reflect on personal values; and identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.	Analytical and critical thinking skills; knowledge and critical understanding of the self; knowledge and critical understanding of culture and cultures; knowledge and critical understanding of sustainability.
Supporting fairness: the ability to support equity and justice for current and future generations and learn from previous generations for sustainability.	Valuing justice, fairness and equality; respect; knowledge and critical understanding of history; knowledge and critical understanding of sustainability.
Promoting nature: the ability to acknowledge that humans are part of nature; and to respect the needs and rights of other species and of nature itself in order to restore and regenerate healthy and resilient ecosystems.	Knowledge and critical understanding of economies, the environment and sustainability; respect.
Systems thinking: the ability to approach a sustainability problem from all sides; and to consider time, space and context in order to understand how elements interact within and between systems.	Analytical and critical thinking skills; openness to cultural otherness and to other beliefs, world views and practices; flexibility and adaptability; tolerance of ambiguity; knowledge and critical understanding of economies, the environment and sustainability.
Critical thinking: the ability to assess information and arguments, identify assumptions, challenge the status quo and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.	Analytical and critical thinking skills; empathy; knowledge and critical understanding of the self; knowledge and critical understanding of culture and cultures.
Problem framing: the ability to formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, in order to identify suitable approaches to anticipating and preventing problems and to mitigating and adapting to already existing problems.	Analytical and critical thinking skills; knowledge and critical understanding of economies, the environment and sustainability; flexibility and adaptability.

38. The list of GreenComp competences is taken from: European Commission (2022: 14-15).

Futures literacy: the ability to envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.	Analytical and critical thinking skills; knowledge and critical understanding of economies, the environment and sustainability; openness to cultural otherness and to other beliefs, world views and practices; empathy; tolerance of ambiguity; flexibility and adaptability.
Adaptability: the ability to manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.	Analytical and critical thinking skills; knowledge and critical understanding of economies, the environment and sustainability; tolerance of ambiguity; flexibility and adaptability; self-efficacy.
Exploratory thinking: the ability to adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentation with novel ideas or methods.	Analytical and critical thinking skills; openness to cultural otherness and to other beliefs, world views and practices; empathy; tolerance of ambiguity; flexibility and adaptability; self-efficacy.
Political agency: the ability to navigate the political system, identify political responsibility and accountability for unsustainable behaviour and demand effective policies for sustainability.	Civic-mindedness; responsibility; self-efficacy; analytical and critical thinking skills; knowledge and critical understanding of the environment, economies and sustainability; knowledge and critical understanding of politics and law; knowledge and critical understanding of language and communication; linguistic, communicative and plurilingual skills.
Collective action: the ability to act for change in collaboration with others.	Civic-mindedness; responsibility; self-efficacy; co-operation skills; conflict-resolution skills; skills of listening and observing; empathy; knowledge and critical understanding of language and communication; linguistic, communicative and plurilingual skills; knowledge and critical understanding of politics and law.
Individual initiative: the ability to identify one's own potential for sustainability and to actively contribute to improving prospects for the community and the planet.	Civic-mindedness; responsibility; self-efficacy; knowledge and critical understanding of the environment, economies and sustainability; knowledge and critical understanding of language and communication; linguistic, communicative and plurilingual skills; knowledge and critical understanding of politics and law.

Table C – Mapping the OECD PISA Global Competences[39] onto the RFCDC competences

Competences in the OECD PISA GC Framework	RFCDC competences onto which the OECD PISA GC competences map
Knowledge of culture and intercultural relations: knowledge of the manifold expressions of culture and intercultural relations, such as languages, arts, knowledge, traditions and norms.	Knowledge and critical understanding of culture and cultures.
Knowledge of socio-economic development and interdependence: knowledge of development patterns in different regions of the world, with a focus on the links and interdependences between societies and economies.	Knowledge and critical understanding of economies.
Knowledge of environmental sustainability: knowledge of environmental issues and of the complex systems and policies surrounding the demand for and use of natural resources.	Knowledge and critical understanding of the environment and sustainability.
Knowledge of institutions: knowledge of the formal and informal institutions that support peaceful relationships between people and the respect of fundamental human rights.	Knowledge and critical understanding of politics, law and human rights.
Reasoning with information: the ability to reason with information from different sources, including textbooks, peers, influential adults, traditional and digital media; to autonomously identify information needs and select sources purposefully on the basis of their relevance and reliability; to use a logical, systematic and sequential approach to examine information in a text or any other form of media, examining connections and discrepancies; and to evaluate the worth, validity and reliability of any material on the basis of its internal consistency, and its consistency with evidence and with one's own knowledge and experience.	Analytical and critical thinking skills.

39. The list of OECD PISA Global Competences is taken from: OECD (2018: 12-20).

Communicating effectively and respectfully: the ability to express oneself clearly, confidently and without anger, even when expressing a fundamental disagreement; to understand the expectations and perspectives of diverse audiences and to apply that understanding to meet the audience's needs; to check and clarify the meanings of words and phrases when engaging in intercultural dialogue; to speak more than one language; to engage in active listening, looking for not only what is being said but also how it is being said, through the use of voice and accompanying body language; to use body language and voice effectively when discussing and debating global issues; and to express and justify a personal opinion and persuade others to pursue a particular course of action.	Linguistic, communicative and plurilingual skills.
Perspective taking: the cognitive and social skills individuals need in order to understand how other people think and feel; to identify and take on often conflicting points of view; and to understand how various perspectives are related to one another.	Empathy.
Conflict management and resolution: the ability to listen and seek common solutions and to address conflict, including analysing key issues, needs and interests (e.g. power, recognition of merit, division of work, equity); identifying the origins of the conflict and the perspectives of those involved in the conflict, recognising that the parties might differ in status or power; identifying areas of agreement and disagreement; reframing the conflict; managing and regulating emotions, interpreting changes in one's own and others' underlying emotions and motivation and dealing with stress, anxiety and insecurity, both in oneself and in others; and prioritising needs and goals, deciding on possible compromises and the circumstances under which to reach them.	Conflict-resolution skills.
Adaptability: the ability to adapt one's thinking and behaviours to the prevailing cultural environment, or to novel situations and contexts that might present new demands or challenges.	Flexibility and adaptability.

Openness towards people from other cultural backgrounds: openness involves sensitivity towards, curiosity about and willingness to engage with other people and other perspectives on the world, and the willingness to suspend one's own cultural values, beliefs and behaviours when interacting with others, and not to assume that one's own values, beliefs and behaviours are the only possible correct ones.	Openness to cultural otherness and to other beliefs, world views and practices.
Respect: positive regard and esteem for someone or something based on the judgment that they have intrinsic worth. Respect assumes the dignity of all human beings and their inalienable right to choose their own affiliations, beliefs, opinions or practices.	Respect.
Global-mindedness: a world view in which one sees oneself as connected to the world community and feels a sense of responsibility for its members, including concerns for other people in other parts of the world; has feelings of moral responsibility to try to improve others' conditions irrespective of distance and cultural differences; cares about future generations; and acts to preserve the environmental integrity of the planet.	Civic-mindedness (where the reference community is the whole of humankind).
Valuing human dignity and cultural diversity: use of human dignity and cultural diversity as critical filters through which information about other cultures is processed, and as critical filters to decide how to engage with others and the world, including fighting against exclusion, ignorance, violence, oppression and war.	Valuing human dignity and human rights; valuing cultural diversity.

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In the face of today's complex sustainability challenges, empowering young people to take democratic action on environmental and human rights issues is crucial for strengthening planetary health, social justice and personal well-being. The Council of Europe recognises that sustainable development is inextricably linked to human rights, democracy and the rule of law. Education must reflect this inseparability, equipping young people with the competences to create a sustainable future for all.

This guidance document explores how the Council of Europe's Reference Framework of Competences for Democratic Culture (RFCDC) can be applied to Education for Sustainable Development (ESD). It highlights the benefits of basing ESD on the RFCDC, especially regarding increased democratic engagement and reduced levels of eco-anxiety. The document provides practical strategies for policy makers and educators, covering curriculum design, pedagogical methods and assessment approaches for empowering learners to address sustainability issues. Also discussed are the crucial aspects of teacher training, digital literacy and preparation for green jobs. Recommendations and open-access resources are included to support the effective implementation of ESD based on the RFCDC.

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