



Sustainability Education: Social-Emotional Learning and Social Inclusion through Outdoor Learning and Nature-Based Activities



CONNECT Handbook 1

Erasmus+ projekt:
Cultivating Outdoor Nature-based Education for Competence and Teaching

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About the project

This handbook has been developed within the framework of the Erasmus+ project CONNECT: Cultivating Outdoor Nature-based Education for Competence and Teaching. Its primary target group is teachers working in secondary education, while remaining adaptable to primary education settings and teacher training contexts. The chapter responds directly to the project's core concerns: increasing stress among teenagers, growing social isolation, declining social skills, and the urgent need to support students' mental wellbeing while fostering inclusion and key competences through innovative teaching approaches.

Nature-Based Learning as a Response to Current Educational Challenges

Research and practice across Europe indicate that today's teenagers face unprecedented pressures. Excessive screen time, reduced contact with nature, academic demands, social comparison and uncertainty about the future have contributed to rising levels of stress, emotional overload and disengagement from learning. Schools are increasingly challenged to respond to these trends using methods that go beyond traditional classroom instruction.

Nature-based outdoor learning offers a concrete and experiential response to these challenges. By moving learning outside the classroom, teachers can create more dynamic, engaging and human-centred educational experiences. Outdoor environments provide rich stimuli for learning while simultaneously supporting physical, emotional and mental wellbeing. As highlighted in the project application, contact with nature can reduce stress, improve resilience and increase motivation to learn, particularly when combined with hands-on, participatory activities .

Making Outdoor Learning Inclusive

Inclusion is a central priority of the Erasmus+ programme and a guiding principle of this project. Inclusive outdoor learning does not mean treating all students the same way; rather, it means creating conditions where every student can participate meaningfully, regardless of ability, background or emotional state.

Nature-based activities naturally lend themselves to inclusion because they allow for multiple forms of engagement. Observation, movement, creative expression, cooperation and reflection can coexist within the same activity. This flexibility is particularly valuable in secondary education settings where classes often include students with diverse learning profiles, cultural backgrounds and levels of confidence.

Outdoor learning environments tend to reduce performance pressure and rigid hierarchies. Students who may struggle in academically demanding classroom settings often find new ways to contribute and succeed outdoors. This supports the project's aim of reducing isolation and social exclusion among teenagers by fostering shared experiences and a sense of belonging.

Supporting Social-Emotional Competences Through Experience

A key objective of the CONNECT project is the development of transversal and social-emotional competences such as communication, collaboration, self-awareness and resilience. These competences are not acquired through instruction alone but through experience, reflection and interaction with others.

Outdoor learning creates natural opportunities for cooperation, problem-solving and shared responsibility. Group tasks such as exploring local ecosystems, participating in sustainability actions or reflecting together during outdoor activities encourage students to listen to one another, negotiate roles and manage emotions. These experiences strengthen social skills that are essential for both personal wellbeing and active citizenship.

Importantly, nature-based learning also supports emotional regulation. Time spent outdoors can help students slow down, reconnect with their senses and shift attention away from constant digital stimulation. Simple activities such as short wellbeing walks, sensory exploration or outdoor reflection circles can support self-management and emotional balance, directly addressing the project's concern about declining mental wellbeing among teenagers .

Working with Mixed-Ability Groups

Secondary school teachers increasingly work with mixed-ability groups where differentiation is essential. Outdoor learning supports differentiation in a non-stigmatising way. Activities can be open-ended, allowing students to engage at different depths and paces. One student may focus on factual observation, another on creative expression, and another on emotional reflection, all within the same learning framework.

Teachers are encouraged to focus on process rather than outcomes and to value effort, cooperation and reflection. Pair and small-group work further supports inclusion and social learning, helping students build confidence and interpersonal skills while learning from one another.

Low-Cost, Low-Risk and Sustainable Implementation

A common barrier to outdoor learning is the perception that it requires significant resources, time or specialised training. In reality, many effective nature-based activities are low-cost and easy to implement. Schoolyards, nearby parks or local green spaces can become meaningful learning environments when used intentionally.

Short, regular outdoor activities are often more impactful than occasional large projects. Even ten minutes spent outside can contribute to wellbeing and engagement. Risk management should focus on awareness and responsibility rather than avoidance, with clear boundaries and shared rules supporting both safety and autonomy.

Aligning Practice with Erasmus+ Priorities

The approaches presented in this handbook directly contribute to Erasmus+ priorities on wellbeing, inclusion and the development of key competences. By integrating nature-based outdoor learning into everyday teaching practice, educators support students' personal growth, social cohesion and environmental awareness. At the same time, teachers strengthen their own professional competences by adopting innovative, experiential methods that respond to contemporary educational needs.

Ultimately, outdoor learning is not an additional burden but a powerful pedagogical resource. When used thoughtfully, it helps teachers create inclusive, supportive and engaging learning environments that empower young people to become resilient, socially connected and environmentally responsible future citizens.

PART I – THEORETICAL FOUNDATIONS

Chapter 1: Teenagers, Wellbeing & Sustainability

1.1 Mental Health Challenges Among Adolescents

Adolescence is a period of profound physical, emotional, and social change. While it is a time of exploration and identity formation, it is also a stage of heightened vulnerability. In recent years, educators across Europe have observed a significant rise in mental health challenges among teenagers, including stress, anxiety, emotional instability, and social withdrawal. Academic pressure, social media exposure, uncertainty about the future, and reduced face-to-face interaction all contribute to a growing sense of overwhelm among young people. In France for example, studies and national surveys have shown that mental health difficulties among secondary school students are both prevalent and increasing. For example, data from the *EnCLASS 2022* survey indicates that although a large proportion of pupils report good overall mental well-being, substantial numbers also experience psychological distress: around 21 % of middle school students and 27 % of high school students report feeling chronically lonely, and somatic or psychological complaints occur in over half of students. Moreover, about 14 % of middle schoolers and 15 % of high schoolers are at substantial risk of depression, while nearly one in four high school students report having had suicidal thoughts in the past year.

Schools increasingly report that students struggle with concentration, motivation, and emotional regulation. Many adolescents experience difficulties expressing their feelings or building healthy relationships with peers. These challenges do not affect all students equally. Those from disadvantaged backgrounds, migrant families, or with learning difficulties are often more exposed to emotional stress and social exclusion. The WHO's HBSC survey reports persistent socioeconomic differences in well-being indicators, with students from disadvantaged backgrounds reporting poorer life satisfaction and more frequent emotional symptoms than their more affluent peers. Similarly, systematic research suggests that migrant adolescents often exhibit elevated risk profiles for mental health problems, influenced by experiences of discrimination, acculturation stress, and barriers to accessing support services. Such findings underline the importance of inclusive, culturally responsive approaches within schools to foster belonging and resilience for all learners.

In France, beyond statistics on anxiety or depression, the lived experiences of young migrants highlight the depth of these challenges. Human Rights Watch's 2024 report 'Not the France I Imagined' describes how unaccompanied migrant children, many arriving after harrowing journeys, often confront long waits for proper legal status, delayed access to schooling, and ongoing post-traumatic stress symptoms. Clinicians working with these youths note that recounting painful memories can re-ignite intense fear and confusion, symptoms that interfere directly with their ability to engage socially and academically. This situation is compounded by prolonged periods out of school due to administrative barriers, leaving adolescents isolated and struggling with both emotional wellbeing and their sense of belonging. Clinical research also shows that cumulative trauma and uncertainty over future prospects contribute to high rates of anxiety and depressive disorders among those who arrived as minors. Together, these narratives illustrate how structural hurdles and personal trauma converge, pushing many vulnerable students toward social exclusion and emotional distress - a stark reminder of the urgent need for supportive, inclusive educational approaches.

Box 1. Key Mental Health Statistics for Adolescents in the EU

- 1 in 7 children and adolescents in the WHO European Region lives with a mental health condition. (*World Health Organization*)
- In the European Union, over 11 million young people under 19 are affected by mental health disorders. (*UNICEF*)
- Mental health difficulties increase with age: around 19% of young people aged 15–19 report anxiety, depression, or related conditions. (*UNICEF / EU data*)
- Nearly 50% of young Europeans report unmet needs for mental health care, meaning they feel they need support but cannot access it. (*Council of the European Union*)
- Anxiety disorders affect approximately 4.1% of 10–14-year-olds and 5.3% of 15–19-year-olds globally, with prevalence rising during adolescence. (*World Health Organization*)
- Climate-related distress is widespread: 59% of young people aged 16–25 report feeling very or extremely worried about climate change. (*The Lancet Planetary Health*)
- More than 50% of young people report feelings such as anxiety, sadness, or powerlessness related to climate change, and over 30% say these emotions negatively affect their daily lives. (*European Environment Agency*)

Sources: WHO, UNICEF, Council of the EU, The Lancet, European Environment Agency

As a result, wellbeing has become not only a health issue but also an educational concern that directly influences learning outcomes, participation, and inclusion.

Traditional education systems have historically prioritised cognitive development and academic performance. However, research and classroom experience clearly show that learning cannot be separated from emotional wellbeing. Students who feel unsafe, anxious, or disconnected are less able to engage meaningfully with learning. For this reason, schools are increasingly called upon to address students’ emotional and social needs alongside academic content.

1.2 Climate Anxiety and Eco-Emotions

In addition to personal and social pressures, today’s teenagers are growing up in a world marked by environmental crises. Climate change, biodiversity loss, pollution, and extreme weather events are no longer distant or abstract issues. Through media exposure and education, young people are highly aware of global environmental challenges and their potential consequences for the future.

While this awareness can motivate engagement and responsibility, it can also lead to negative emotional responses. Many adolescents experience climate anxiety, a form of stress or fear related to environmental degradation and uncertainty about the planet’s future. Feelings of helplessness, sadness, anger, or guilt, often referred to as *eco-emotions*, are increasingly common among young people.

Box 2. Climate anxiety in a nutshell

Climate Anxiety – What Teachers Need to Know

Climate anxiety (also referred to as *eco-anxiety*) describes the **chronic fear, worry, or distress related to climate change and environmental degradation**.

It is **not a mental disorder**, but a **natural emotional response** to growing awareness of environmental crises and uncertainty about the future.

Climate anxiety is particularly common among **children and adolescents**, who may feel that their future is threatened while having limited power to influence large-scale decisions.

Common Symptoms of Climate Anxiety in Teenagers

Climate anxiety can appear in different ways and often overlaps with general stress or anxiety. Common signs include:

- Persistent **worry or fear** about the future of the planet
- Feelings of **helplessness, sadness, anger, or guilt** related to environmental issues
- **Difficulty concentrating** during lessons, especially when climate topics are discussed
- **Sleep problems** or frequent fatigue
- Physical complaints such as **headaches or stomach aches** with no clear medical cause
- Emotional withdrawal or loss of motivation
- Avoidance of news or discussions about climate change, or the opposite-obsessive focus on it

How Teachers Can Recognise Climate Anxiety at School

Teachers may notice climate anxiety when students:

- Express **hopeless or catastrophic views** about the future
- Show strong emotional reactions during sustainability-related lessons
- Withdraw from group discussions or classroom participation
- Ask repeated questions about whether “anything can still be done”
- Appear overwhelmed rather than empowered by environmental topics

If these emotions are not acknowledged and addressed, they may lead to disengagement, denial, or emotional burnout. Students may feel that individual actions are meaningless in the face of global problems, which can reduce motivation and hope.

Young people’s emotional responses to climate change are not limited to concern or motivation to act. A growing body of qualitative research shows that for many adolescents, climate change has become a source of deep emotional distress, discouragement, and loss of hope. Interviews and case studies across different countries reveal how awareness of environmental crises can shape young people’s worldview, identity, and daily behaviour in powerful ways.

In a large international study based on in-depth interviews and surveys with young people aged 16–25 across ten countries, many participants described a pervasive sense of fear and uncertainty about the future (Hickman et al., 2021). Some students expressed the belief that environmental collapse was inevitable and that meaningful political action would come too late. This belief sometimes led to emotional withdrawal and disengagement rather than activism. A number of respondents reported thinking along the lines of “there is no future to plan for,” which affected their motivation to study, work, or imagine long-term goals (Hickman et al., 2021).

Qualitative studies with European adolescents show similar patterns. Research conducted in Sweden and other Nordic countries found that some teenagers cope with climate anxiety by emotionally distancing themselves from the issue, expressing resignation rather than engagement (Ojala, 2012; Ojala, 2023). In interviews, students described moments of

discouragement in which they questioned the value of personal effort, stating that individual actions felt meaningless in the face of global inaction. This form of emotional coping sometimes manifested as irony, indifference, or a focus on short-term enjoyment, reflecting a belief that “if the future is already lost, it makes sense to enjoy the present” (Ojala, 2012).

Other studies highlight how climate-related emotions can intersect with broader mental health vulnerabilities. In qualitative interviews with children and adolescents in Canada, participants reported fear, sadness, and helplessness when thinking about climate change, often accompanied by physical sensations such as tension or difficulty sleeping (Jones et al., 2023). Even younger children expressed worry about what the world would be like when they grew up, indicating that climate anxiety can emerge early and shape emotional development.

In France and other European countries, research and reports focusing on vulnerable youth show that climate anxiety can be compounded by social and structural insecurity. Interviews with migrant and socially disadvantaged adolescents reveal how concerns about environmental collapse coexist with more immediate fears related to housing, legal status, or access to education (Human Rights Watch, 2024). For some young people, the accumulation of stressors leads to emotional exhaustion and a sense that neither personal effort nor institutional support will be sufficient to secure a stable future.

Psychological research conceptualises these reactions as part of a broader spectrum of climate-related emotions, including anxiety, grief, anger, guilt, and hopelessness (Clayton et al., 2017). While such emotions are not pathological in themselves, studies suggest that when young people lack spaces to process them constructively, they may disengage from learning, avoid discussions about sustainability, or adopt fatalistic attitudes toward the future (Clayton et al., 2017; Hickman et al., 2021).

These narratives underline the importance of educational approaches that do not focus solely on climate knowledge or behavioural change. Without emotional support, sustainability education risks reinforcing feelings of powerlessness. By contrast, learning environments that integrate social-emotional learning, dialogue, and experiential outdoor activities can help students transform anxiety into agency, rebuild hope, and reconnect with both nature and a sense of collective responsibility.

Box 3. Climate Anxiety in numbers

Climate anxiety, also referred to as eco-anxiety, is increasingly documented among children and adolescents worldwide. Large-scale international research indicates that concern about climate change is widespread and emotionally significant for young people. Around 59–60% of young people aged 16–25 report feeling very or extremely worried about climate change, while more than 80% say they are at least moderately concerned. Almost half of those surveyed report that climate-related worries negatively affect their daily lives, including sleep, concentration, mood, or motivation.

In international youth surveys, approximately 75% of respondents describe the future as frightening because of climate change. Feelings commonly reported include anxiety, sadness, fear, powerlessness, anger, and guilt. Many young people express a sense of uncertainty about whether meaningful action is still possible.

Research also shows that between 30% and 45% of young people say climate anxiety interferes with everyday functioning, such as school engagement, emotional regulation, or social interaction. Some studies link high levels of climate-related distress with increased risk of anxiety symptoms, depressive moods, and sleep problems.

These findings suggest that climate anxiety is not a marginal phenomenon but a common emotional response among young people, highlighting the importance of addressing emotional wellbeing alongside environmental education.

Sources: The Lancet Planetary Health; UNICEF; European youth and climate surveys

Education therefore has a crucial role to play in helping students process these emotions in a constructive way.

Nature-based and outdoor learning offer a powerful response to eco-anxiety. Direct contact with nature helps students move from abstract fear to tangible experience. By observing ecosystems, participating in outdoor activities, and engaging in local sustainability actions, students can regain a sense of connection, agency, and optimism. Instead of feeling powerless, they begin to see themselves as part of the solution.

1.3 Why Sustainability Education Must Include Wellbeing

Sustainability education is often associated with environmental knowledge, responsible behaviour, and long-term thinking. However, sustainability is not only about protecting the planet; it is also about sustaining human wellbeing, social cohesion, and emotional resilience. A truly sustainable future requires individuals who are emotionally balanced, socially connected, and capable of cooperation and empathy.

Integrating wellbeing into sustainability education allows students to develop a healthier relationship with both the environment and themselves. Social-emotional learning helps students recognise and manage their emotions, build positive relationships, and make responsible decisions. When combined with outdoor learning, these skills are strengthened through shared experiences, collaboration, and reflection in a natural setting.

Nature provides a unique learning environment that supports inclusion and emotional safety. Outdoor spaces are less hierarchical than classrooms and offer multiple ways for students to participate and succeed. Physical movement, sensory engagement, and teamwork help reduce stress and encourage communication. For students who struggle in traditional academic settings, outdoor learning can open new pathways to confidence and belonging.

By linking sustainability education with wellbeing, teachers can address environmental responsibility without increasing anxiety. Students learn that caring for the environment also means caring for themselves and others. This holistic approach supports resilience, hope, and long-term engagement, qualities that are essential for facing the challenges of the future.

In conclusion, addressing teenagers' wellbeing is not an optional addition to sustainability education but a fundamental component of it. By creating learning experiences that combine emotional support, social inclusion, and contact with nature, educators can help young people grow into responsible, resilient, and compassionate citizens who are prepared to build a sustainable world.

Chapter 2: Social-Emotional Learning (SEL)

2.1 What Social-Emotional Learning Is

Social-Emotional Learning (SEL) refers to the process through which individuals acquire and apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set positive goals, feel and show empathy for others, establish and maintain healthy relationships, and make responsible decisions. Rather than being a separate subject, SEL is a cross-cutting educational approach that supports learning, wellbeing, and social inclusion across all areas of school life.

Graph 1. Core competences in SEL



As shown in a Graph 1 above, SEL is commonly described through five interconnected core competencies:

- **Self-awareness** involves recognising one’s emotions, thoughts, values, strengths, and limitations. For adolescents, this includes understanding emotional reactions to stress, social situations, or global issues such as climate change. Developing self-awareness helps students name what they feel, reflect on their responses, and better understand how emotions influence behaviour and learning.
- **Self-management** refers to the ability to regulate emotions, thoughts, and behaviours effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working toward personal goals. For teenagers facing academic pressure, social challenges, or climate-related anxiety, self-management skills are essential for emotional regulation and resilience.
- **Social awareness** is the ability to take the perspective of others and empathise with people from diverse backgrounds and cultures. It includes understanding social norms and recognising the impact of one’s actions on others. Social awareness is particularly important in inclusive classrooms, where students may come from different cultural, linguistic, or socio-economic backgrounds.
- **Relationship skills** involve the ability to establish and maintain healthy and supportive relationships. These skills include communication, active listening, cooperation, conflict resolution, and seeking or offering help when needed. In educational settings, strong relationship skills contribute to a sense of belonging, peer support, and positive group dynamics.
- **Responsible decision-making** refers to making ethical, constructive, and socially responsible choices about personal behaviour and interactions. It involves considering consequences, evaluating options, and reflecting on the wellbeing of oneself, others, and the wider community. In the context of sustainability education, responsible decision-making also includes environmental responsibility and long-term thinking.

Together, these competencies form a coherent framework that supports both personal development and collective wellbeing across multiple levels of a young person’s life. In the classroom, social-emotional learning helps students regulate emotions, collaborate effectively, and engage more confidently in learning, creating a climate where participation,

mutual respect, and inclusion are strengthened. Teachers benefit from improved classroom dynamics, reduced conflict, and stronger relationships with students, enabling more meaningful and supportive learning interactions.

At the whole-school level, SEL contributes to a positive school culture based on trust, empathy, and shared responsibility. When social-emotional competencies are embedded in everyday school practices, students are more likely to feel safe, valued, and connected, which supports attendance, motivation, and overall wellbeing. Schools that prioritise SEL are better equipped to address diversity, prevent exclusion, and foster a sense of belonging among all learners.

Beyond school, SEL competencies extend into family life and relationships with caregivers. Skills such as emotional awareness, communication, and responsible decision-making help young people express their needs, manage conflicts, and build healthier relationships at home. Families, in turn, play a crucial role in reinforcing these skills, creating continuity between school-based learning and everyday life.

At the community level, social-emotional learning supports active and responsible participation in society. Young people who develop empathy, cooperation, and ethical decision-making are more likely to engage positively with their local communities, participate in collective initiatives, and contribute to social and environmental wellbeing. In this way, SEL not only supports individual growth but also strengthens social cohesion and resilience, laying the foundations for sustainable and inclusive communities.

2.2 Why SEL Is Essential for Sustainable Futures

Sustainability is often discussed in terms of environmental protection or economic development, yet the ability of societies to remain sustainable also depends on human capacities such as emotional resilience, adaptability, cooperation, and ethical responsibility. In a world characterised by rapid change and growing uncertainty, these social and emotional dimensions are no longer optional but essential. Social-Emotional Learning plays a central role in preparing young people to navigate these realities.

One of the most significant transformations shaping young people's futures is the rapid development of digital technologies and artificial intelligence. Automation, artificial intelligence, and platform-based work are profoundly reshaping labour markets across Europe and globally. Research and policy reports increasingly point out that young people are unlikely to follow a single, linear career path or remain in one profession throughout their lives. Instead, they will need to adapt repeatedly, retrain, and respond to changing demands. In this context, skills such as resilience, emotional regulation, self-confidence, and the ability to cope with uncertainty are as important as technical knowledge. SEL supports students in developing these capacities by helping them manage stress, remain motivated during transitions, and view change as a challenge rather than a threat.

Climate change represents another long-term pressure requiring strong social-emotional competences. Young people are growing up with constant exposure to information about environmental crises, which can provoke anxiety, frustration, or a sense of helplessness. Without the skills to process these emotions constructively, students may disengage from sustainability topics or adopt fatalistic attitudes. SEL enables students to recognise and regulate difficult emotions, engage in reflection and dialogue, and transform concern into purposeful action. This emotional grounding is crucial if sustainability education is to empower rather than overwhelm learners.

Social inequality and increasing diversity in classrooms further highlight the importance of SEL. Many schools serve students from varied cultural, linguistic, and socio-economic backgrounds, including migrants, refugees, and learners facing disadvantage. In such contexts, academic knowledge alone is insufficient to ensure inclusion and cohesion. Social

awareness, empathy, and relationship skills are essential for preventing exclusion, reducing conflict, and building respectful learning communities. SEL helps students understand different perspectives, communicate across differences, and develop a sense of belonging, which is a prerequisite for meaningful participation in both education and society.

Sustainability challenges are also inherently collective. Whether addressing climate action, community wellbeing, or responsible use of technology, solutions require cooperation, dialogue, and shared responsibility. Students must learn to work with others who may hold different values, opinions, or interests. SEL fosters the ability to engage in collaborative problem-solving, manage disagreement constructively, and contribute to collective goals. These skills are essential for democratic participation and for addressing complex sustainability challenges that cannot be solved individually.

Finally, SEL supports ethical and responsible decision-making in an increasingly complex world. From everyday consumption choices to the use of digital tools and engagement with environmental issues, young people are constantly faced with decisions that have social and environmental consequences. By strengthening self-awareness and ethical reflection, SEL encourages students to consider the long-term impact of their actions on others and on the planet. This shift from short-term, individual thinking toward long-term, collective responsibility lies at the heart of sustainable development.

In inclusive educational contexts, the integration of social-emotional learning contributes directly to equity and social cohesion. Students who feel emotionally safe, valued, and supported are more likely to engage actively in learning and community life. Over time, these individual experiences accumulate into stronger, more resilient communities. In this way, SEL does not only prepare students for academic success, but equips them with the human capacities needed to navigate uncertainty, contribute responsibly to society, and participate actively in shaping a sustainable future.

2.3 Links to LifeComp and Key Competences

Social-Emotional Learning is closely aligned with European competence frameworks, particularly the LifeComp framework and the Key Competences for Lifelong Learning adopted by the European Union.

LifeComp identifies three interconnected areas: personal, social, and learning-to-learn competencies. SEL contributes directly to all three. Self-awareness and self-management align with the personal area, supporting emotional regulation, resilience, and wellbeing. Social awareness and relationship skills correspond to the social area, promoting empathy, cooperation, and participation in community life. Responsible decision-making and reflective practices contribute to learning-to-learn competences by supporting goal-setting, critical reflection, and adaptability.

SEL also strengthens several of the EU Key Competences for Lifelong Learning. It supports citizenship competence by fostering active participation, ethical responsibility, and respect for diversity. It contributes to entrepreneurship competence by developing initiative, perseverance, and the ability to work collaboratively toward shared goals. Social-emotional skills further underpin cultural awareness and expression by encouraging openness to different perspectives and forms of expression.

In the context of sustainability education, SEL acts as a bridge between knowledge and action. It enables students not only to understand environmental issues but also to respond to them with emotional awareness, social responsibility, and confidence in their ability to contribute positively.

By integrating SEL into outdoor and nature-based learning, educators can address cognitive, emotional, and social dimensions of learning simultaneously. This holistic approach supports

students in becoming not only informed learners, but also resilient, empathetic, and engaged citizens prepared to contribute to a sustainable future.

Chapter 3: Social Inclusion in Education

For much of human history, education took place within relatively local and stable social contexts. Schools were embedded in communities where families often shared similar languages, cultural references, traditions, and expectations. Inequality certainly existed, but it tended to follow familiar lines, such as social class or geographic location. Teachers generally worked within a shared cultural framework, and inclusion was understood primarily as ensuring access to education for children with disabilities or from economically disadvantaged backgrounds.

Today, this context has changed profoundly. Globalisation, increased mobility, and digital connectivity have transformed societies and, with them, educational environments. Even small towns and rural areas are now connected to global flows of people, information, and culture. Classrooms bring together students with different languages, migration histories, belief systems, family structures, and experiences of the world. As a result, inclusion has taken on a broader and more complex meaning than ever before.

In practice, social inclusion in education now refers to the ability of schools to respond to this diversity in ways that allow every student to participate fully, feel respected, and develop a sense of belonging. Inclusion is no longer only about physical access to education, but about emotional safety, cultural recognition, and meaningful participation in learning and social life. According to international research, inclusive education requires systems that adapt to learners, rather than expecting learners to adapt to a single norm (OECD, 2023).

The challenges teachers face today reflect this complexity. Students may arrive in the same classroom with very different starting points. Some may speak the language of instruction fluently, while others are still learning it. Some may feel confident navigating school expectations, while others may carry experiences of migration, displacement, discrimination, or interrupted schooling. Emotional and psychological factors play a growing role, as young people cope not only with academic demands, but also with social pressures, identity questions, and uncertainty about the future.

Barriers to inclusion are therefore multi-layered. Social and economic inequality continues to shape students' access to resources, support, and opportunities. Children from low-income families may struggle with unstable housing, limited access to learning materials, or reduced opportunities for enrichment activities, all of which influence participation and wellbeing. At the same time, cultural and linguistic barriers have become more visible as migration and mobility increase. Students who do not see their language, culture, or experiences reflected in the curriculum may feel invisible or marginalised, even when they are physically present in the classroom (OECD, 2023).

Emotional barriers are equally significant. Research on newcomer education and migrant students shows that young people who have experienced loss, trauma, or major transitions may find it difficult to trust institutions or feel safe in learning environments unless these needs are explicitly recognised. Feelings of isolation, anxiety, or low self-worth can limit engagement and reinforce exclusion, even when academic support is available. Discrimination, whether overt or subtle, further deepens these divides, creating environments in which some students feel they must hide parts of their identity in order to belong (UNESCO, 2023).

Globalisation has therefore not reduced the need for inclusion, but intensified it. The world has become more interconnected, but also more fragmented. Students are exposed daily to global narratives through social media, digital platforms, and news, which shape their understanding of identity, belonging, and difference. Without guidance, these influences can

reinforce stereotypes, polarisation, or feelings of alienation. Schools are increasingly expected to act as spaces where young people learn not only academic content, but also how to live together in diverse societies.

In this context, inclusion is no longer a static goal, but an ongoing practice that requires dialogue, flexibility, and shared responsibility. Teachers are asked to mediate between local and global realities, helping students respect both the communities they live in and the broader world they are part of. This means acknowledging differences without turning them into divisions, and creating learning experiences where diversity is seen as a resource rather than a problem.

Outdoor and nature-based learning can play a meaningful role in addressing some of these challenges. Learning outside the classroom often shifts traditional power dynamics and reduces the dominance of language-heavy instruction. In outdoor settings, students engage through observation, movement, collaboration, and shared experience, which can create alternative pathways to participation for those who struggle in conventional classroom environments. Research suggests that such settings can foster cooperation, mutual respect, and social bonding, particularly among students from diverse backgrounds.

Shared experiences in nature also offer opportunities to reconnect learning with place and community. When students work together on environmental projects, explore local ecosystems, or participate in outdoor activities, they engage with common goals that transcend cultural or linguistic differences. These experiences can help build a sense of collective responsibility and belonging, supporting inclusion not through assimilation, but through shared action and mutual recognition.

Ultimately, social inclusion in education cannot be reduced to a set of strategies or interventions. It is a relational process that involves schools, families, and communities working together in increasingly complex social landscapes. In a globalised world, inclusive education means preparing young people to navigate diversity with empathy, critical thinking, and openness, while remaining rooted in local contexts and relationships. By embracing this broader perspective, education can contribute not only to individual success, but to more cohesive, resilient, and sustainable societies.

Chapter 4: Why Nature Works

Across cultures and historical periods, humans have sought comfort, meaning, and restoration in natural environments. Long before scientific research began to examine the effects of nature on wellbeing, people intuitively understood its calming influence. In the context of contemporary education, this relationship between humans and nature has gained renewed importance, as schools face rising levels of stress, emotional overload, and social fragmentation among students. Nature-based and outdoor learning offer not only an alternative learning environment, but a fundamentally different pedagogical space—one that supports emotional regulation, inclusion, and connection.

Nature functions as a calming and equalising space in ways that traditional classrooms often cannot. Unlike indoor environments, which are structured, rule-bound, and strongly associated with performance and evaluation, natural settings tend to reduce hierarchical roles and social pressure. Research in environmental psychology suggests that natural environments activate physiological responses associated with relaxation, such as reduced heart rate and lower cortisol levels, which are linked to stress reduction (Ulrich et al., 1991; Kuo, 2015). For students, this shift can translate into a greater sense of safety and openness, allowing them to engage more authentically with learning and with one another.

The equalising effect of nature is particularly relevant in diverse and inclusive educational contexts. In outdoor settings, traditional markers of academic success—such as verbal fluency, speed of information processing, or test performance—often lose their central role.

Instead, participation can occur through observation, movement, cooperation, and sensory engagement. This creates opportunities for students who may feel marginalised in classroom settings, including those with linguistic barriers, learning difficulties, or lower academic confidence, to contribute meaningfully. Studies on outdoor education indicate that such environments can support social inclusion by valuing multiple forms of competence and participation (Waite et al., 2016).

A growing body of research has examined the impact of outdoor learning on stress, attention, and emotional wellbeing. Attention Restoration Theory proposes that natural environments support cognitive functioning by allowing directed attention—often overused in classroom learning—to recover (Kaplan and Kaplan, 1989). Empirical studies with children and adolescents have shown improvements in concentration, reduced mental fatigue, and enhanced mood following time spent in green spaces or outdoor learning activities (Chawla, 2015; Kuo, 2015). These effects are particularly significant for students experiencing chronic stress, anxiety, or emotional overload.

Outdoor learning has also been associated with improved emotional regulation. Contact with nature provides sensory experiences that can ground students in the present moment, reducing rumination and emotional escalation. Research suggests that regular exposure to natural environments supports the development of emotional resilience and coping strategies, helping young people manage difficult emotions more effectively (Bratman et al., 2019). For students experiencing climate anxiety or broader social stressors, nature-based learning can offer a space to reconnect with feelings of agency, curiosity, and hope.

Importantly, the benefits of outdoor learning are not limited to individual wellbeing. Learning outside often involves collaborative tasks that strengthen social bonds and peer relationships. Shared challenges, such as exploring a natural area or working on an environmental project, foster cooperation and mutual support. Studies in outdoor education highlight the role of shared experience in building trust, empathy, and a sense of belonging among participants (Rickinson et al., 2004). These social dimensions are essential for inclusive education, particularly in classrooms shaped by cultural and linguistic diversity.

While the benefits of outdoor learning are well documented, it is essential to address questions of safety, inclusion, and accessibility. Nature-based education does not mean abandoning structure or responsibility. On the contrary, effective outdoor learning requires thoughtful planning, clear boundaries, and inclusive design. Research emphasises that when safety considerations are integrated into planning—such as risk assessment, clear communication, and appropriate supervision—outdoor learning can be both safe and highly beneficial (Rickinson et al., 2004).

Inclusion and accessibility must also be central considerations. Natural spaces are not automatically inclusive; they become so through intentional pedagogical choices. Educators need to consider physical accessibility, sensory sensitivities, cultural perceptions of nature, and students' prior experiences. Studies on inclusive outdoor education stress the importance of adapting activities, offering choice, and engaging students in co-creating rules and expectations to ensure that all learners feel comfortable and respected (Waite et al., 2016). When these factors are addressed, outdoor learning can reduce rather than reinforce inequality.

In a globalised and digitally saturated world, where young people are increasingly disconnected from physical environments and embodied experience, nature offers a powerful counterbalance. Outdoor learning reconnects education with place, community, and lived experience, helping students situate abstract knowledge within tangible contexts. This reconnection supports not only academic learning, but emotional wellbeing, social inclusion, and sustainable ways of relating to the world.

In this sense, nature works not because it is a solution in itself, but because it creates conditions that allow learning to become more humane, relational, and balanced. By integrating outdoor and nature-based learning into education, schools can respond to contemporary challenges with approaches that support calmness, focus, inclusion, and resilience—qualities that are increasingly essential in uncertain times.

PART II – PRACTICAL EXAMPLES FROM AROUND THE WORLD

While theory helps clarify why social-emotional learning, inclusion, and outdoor education matter, it is through practice that these concepts truly come to life. Across different countries and educational contexts, teachers and schools have developed creative ways to use outdoor and nature-based learning to support wellbeing, inclusion, and sustainability. These initiatives demonstrate how abstract ideas can be translated into meaningful learning experiences that respond to the emotional, social, and cultural realities of young people. By looking beyond national borders, educators can discover approaches shaped by diverse environments, traditions, and challenges, while recognising shared concerns that connect classrooms worldwide.

The examples presented in this section do not offer ready-made models to be copied, but rather sources of inspiration and reflection. Each case illustrates how educators have adapted outdoor learning to their local context, working with available spaces, communities, and resources. Together, they show that nature-based learning can take many forms, from small-scale activities in urban settings to broader community projects in rural or natural environments. By exploring these practices, teachers are invited to reflect on their own context and consider how similar principles might be applied to foster wellbeing, inclusion, and a sense of shared responsibility among their students.

France

In recent years, a growing number of educational actors in France have begun to explore how nature-based learning can support the wellbeing and social inclusion of young people facing disadvantage, migration-related challenges, or disengagement from formal education. Although outdoor learning has not traditionally been central to the French education system, there is increasing recognition that natural environments can offer alternative spaces for learning, reflection, and relationship-building, particularly for students who struggle in conventional classroom settings.

One visible development has been the emergence of initiatives promoting “learning outside the classroom” as a way to respond to rising stress levels, attention difficulties, and social fragmentation among students. Public debates and pedagogical movements advocating for “la classe dehors” highlight how regular learning experiences in parks, forests, or natural school surroundings can support concentration, emotional regulation, and inclusion for diverse groups of learners (collective initiatives, 2023). These approaches emphasise that nature should not be seen as a luxury or enrichment activity, but as a pedagogical resource accessible to all students, regardless of background.

Across different regions of France, environmental education organisations have played a key role in translating these ideas into practice. Networks such as the Centres Permanents d’Initiatives pour l’Environnement (CPIE) work with schools, youth centres, and local authorities to design outdoor activities for children and adolescents, including those from disadvantaged neighbourhoods or migrant families. Through guided walks, biodiversity observation, sensory exploration, and collaborative environmental projects, young people are invited to engage with local ecosystems in ways that combine learning, emotional awareness, and social interaction (CPIE network, 2022). Facilitators report that these activities often allow students who are quieter or less confident in classroom discussions to participate more actively, using observation, movement, or creativity rather than language alone.

Nature-based activities have also been used intentionally to support emotional literacy and group reflection. In several NGO–school partnerships, outdoor sessions are structured to

include moments of shared reflection, where students are encouraged to express feelings, listen to others, and connect emotions with experiences in nature. Simple practices such as wellbeing walks, sensory awareness exercises, or eco-art workshops provide opportunities for young people to slow down, notice their surroundings, and articulate emotional responses that may otherwise remain unspoken. These approaches are particularly valuable for students who experience anxiety, social withdrawal, or difficulties expressing themselves in formal academic contexts.

Eco-art and creative outdoor practices have gained attention as inclusive tools for engagement. By using natural materials, drawing inspiration from landscapes, or creating collective artworks outdoors, students can explore environmental themes while also processing personal and collective emotions. Such activities reduce performance pressure and allow multiple forms of expression, making them accessible to students with different linguistic abilities or learning profiles. Practitioners involved in these projects note that creativity in nature can foster a sense of ownership, pride, and belonging, especially for young people who have experienced exclusion or academic failure (community arts initiatives, 2021).

Another important area of innovation in France involves programmes targeting young people who have disengaged from traditional schooling. Initiatives such as the *Écoles de la Transition Écologique (ETRE)* work with adolescents and young adults facing educational or social rupture, many of whom come from migrant or economically disadvantaged backgrounds. These programmes combine outdoor work, ecological projects, and practical learning in areas such as sustainable agriculture, renewable energy, or environmental restoration. Learning takes place largely outside, in direct contact with nature and local communities, helping participants rebuild confidence, develop social skills, and reconnect learning with meaningful action (ETRE network, 2022).

What these diverse examples have in common is the recognition that nature can function as both a physical and symbolic space for inclusion. Outdoor environments often reduce the weight of academic labels and hierarchies, allowing young people to relate to one another differently. Shared experiences in nature create opportunities for cooperation, mutual support, and dialogue across cultural and social differences. At the same time, partnerships between schools, NGOs, and community actors make it possible to extend learning beyond institutional boundaries and involve families and local communities in inclusive educational processes.

For educators working in other contexts, these French experiences offer inspiration rather than fixed models. They show that nature-based inclusion does not depend on access to large natural reserves or specialised infrastructure. Even small green spaces, local parks, or school surroundings can become sites for emotional learning, reflection, and social connection when activities are thoughtfully designed. By combining outdoor learning with attention to emotional wellbeing and social inclusion, educators can respond more effectively to the complex realities of today's classrooms and support young people in building resilience, belonging, and hope.

Poland

In Poland, a valuable example of nature-based education that can inspire similar approaches in other contexts is the project “Naturalnie! Dzieci przyjazne naturze, natura przyjazna dzieciom” (“Naturally! Children Friendly to Nature, Nature Friendly to Children”), coordinated by the foundation *W związku z naturą*. The initiative focused on strengthening children's wellbeing, emotional awareness and relationship with nature through regular outdoor activities, mainly in forest and natural settings. The project was implemented with

primary school children from different regions of Poland and combined structured outdoor workshops with reflective and sensory-based learning experiences (Naturalnie!, 2024).

Throughout the project, children participated in guided nature sessions designed to slow down their pace, sharpen their senses and encourage emotional expression. Activities included mindful walks, observation of seasonal changes, sensory exploration of textures, sounds and smells, creative work using natural materials, and group reflection circles held outdoors. These experiences allowed children to engage with nature not only cognitively, but also emotionally and socially. Educators involved in the project observed that many children who were usually withdrawn, restless or less confident in classroom settings became more engaged and expressive when learning outdoors. Nature functioned as a calming and equalising space, where differences in academic performance, background or temperament were less visible and participation felt more accessible to all.

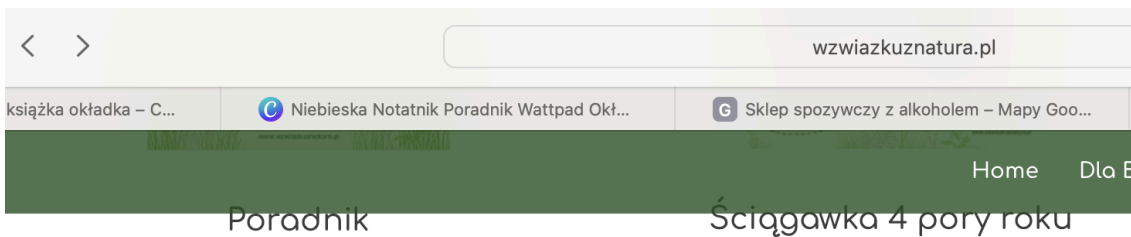
An important element of the project was the close cooperation with teachers. Educators were not passive observers but active co-creators of the learning process. Based on the workshops, practical teaching materials were developed, including lesson scenarios, activity cards and inspiration guides that support teachers in organising outdoor learning independently. These materials were designed to be flexible, allowing educators to adapt activities to different age groups, local environments and school realities. The focus was not on specialised infrastructure, but on making use of nearby green spaces such as forests, parks or school surroundings, demonstrating that meaningful nature-based education does not require extensive resources.

The project also placed strong emphasis on emotional literacy. Children were encouraged to name and share their feelings after outdoor activities, reflect on how their mood changed during time spent in nature, and listen to the experiences of others. Group discussions held outdoors helped normalise emotions such as fear, excitement or calmness, and strengthened peer relationships. This approach supported the development of social-emotional competencies alongside environmental awareness, showing how nature-based learning can address wellbeing and inclusion at the same time.

Beyond school settings, the project offered inspiration for families and local communities. Some of the materials created during the initiative were designed for joint use by children and caregivers, encouraging families to spend time outdoors together and build positive routines connected to nature. In this way, learning extended beyond the classroom and contributed to a broader culture of connection with the natural environment.

The Polish example illustrates how outdoor learning can support inclusion by reducing linguistic, social and emotional barriers. Hands-on, sensory activities require less reliance on verbal instruction and academic language, making participation easier for children with diverse learning needs or backgrounds. Shared experiences in nature foster cooperation, empathy and mutual respect, helping children feel part of a group regardless of their individual differences.

As a model, this initiative demonstrates that nature-based education can be successfully implemented through cooperation between NGOs, schools and teachers, even in contexts where outdoor learning is not yet a standard part of the education system. It offers inspiration for educators in other countries who wish to integrate wellbeing, inclusion and sustainability into their practice by using nature as a shared learning space. The key transferable elements are regular contact with nature, intentional emotional reflection, accessible activities, and strong collaboration between educators and community organisations.



Inspiracje/zadania zarówno dla klas jak i dla rodzin z dziećmi



Inspiracje/zadania zarówno dla klas jak i dla rodzin z dziećmi EN

International Examples

North America

Across North America and other regions, outdoor education organisations and schools have developed trauma-informed outdoor learning approaches that recognise the impact of trauma on students' ability to learn and engage. These programmes create safe, supportive environments outdoors where students can build trust, feel secure, and reconnect with themselves and others through land-based activities. Trauma-informed outdoor education emphasises safety, predictable routines, supportive relationships and gradual exposure to nature-based challenges, helping students reduce stress responses and foster emotional regulation (National Outdoor Leadership School trends on trauma-informed learning).

In practice, this approach is reflected in the way outdoor sessions are carefully designed and facilitated. Educators begin by establishing clear structures and routines, often opening sessions with short check-in circles where students are invited, but never required, to share how they are feeling and what they need to feel comfortable that day. Activities are intentionally paced, starting with low-intensity, calming experiences such as guided sensory walks, quiet observation of the natural environment, or grounding exercises that focus on sounds, textures, and movement. These experiences help students regulate their nervous systems and build a sense of safety before engaging in more demanding tasks.

Supportive relationships are central to the approach. Facilitators take time to get to know students individually and pay close attention to verbal and non-verbal cues, adjusting activities when signs of discomfort or overload appear. Students are offered choice and autonomy, for example by being allowed to opt out of certain activities, choose where to sit, or work in pairs rather than large groups. This emphasis on agency helps counter feelings of powerlessness that many trauma-affected learners may experience.

Trending: Trauma-informed Learning in Outdoor-based Experiential Education

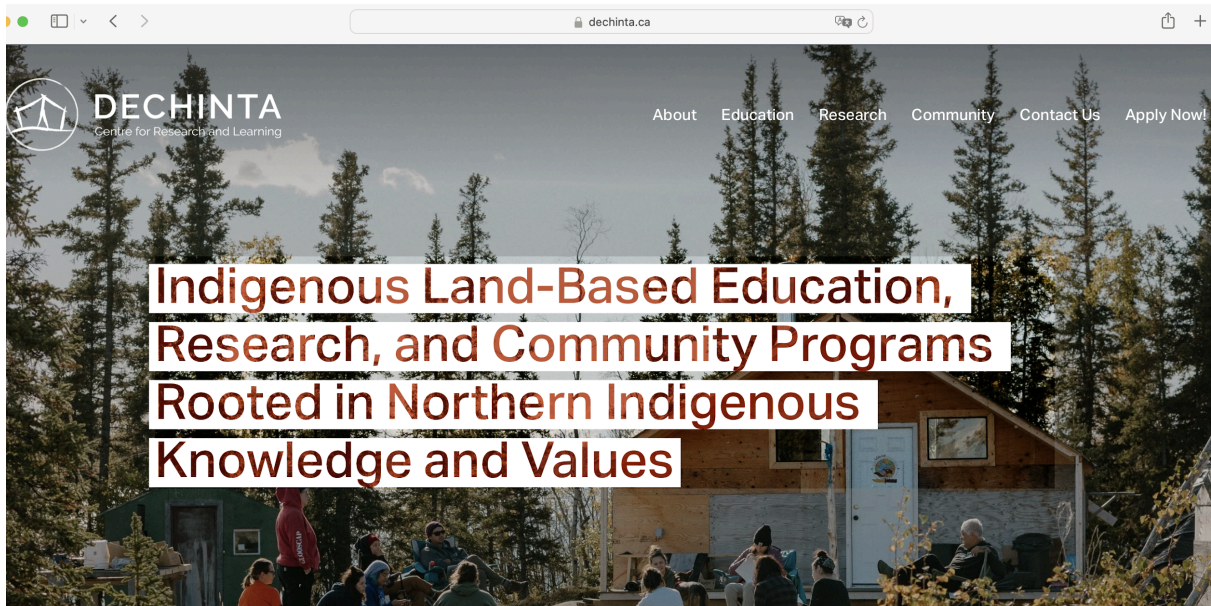
Stephen Mullaney | April 07, 2023

As trust develops, programmes gradually introduce collaborative and reflective activities, such as shared shelter-building, paired nature journaling, group storytelling, or reflective pauses during hikes and ecological exploration. Educators intentionally embed emotional literacy practices into these experiences, encouraging students to notice how their bodies and emotions respond to time spent outdoors and to reflect on moments of calm, challenge or connection. Through these practices, students not only learn about ecosystems, but also learn how to feel safe and connected to peers and educators in natural settings (research on trauma-informed environmental education).

Rather than focusing on disclosure of personal experiences, trauma-informed outdoor learning works with observable behaviours and expressed needs, creating inclusive environments where all students can participate without pressure. Over time, such programmes have been shown to support emotional regulation, rebuild trust in learning relationships, and help young people experience nature as a space of restoration, resilience and belonging. When integrated thoughtfully into curriculum and pastoral support, trauma-informed outdoor education offers a concrete and compassionate response to the emotional realities many students bring with them into school.

Dechinta Centre for Research and Learning (Canada)

In Canada, the Dechinta Centre for Research and Learning offers an Indigenous-led, land-based educational experience that blends cultural knowledge, traditional practices, and contemporary learning. Located near Yellowknife, Dechinta provides programming that is rooted in Indigenous worldviews and teaches through *living on and learning from the land*. Elders, Knowledge Holders and Indigenous educators guide students in activities that include ecological skills, cultural practices, governance, and storytelling, all of which strengthen *identity, cultural pride and community connection*. Dechinta's model emphasises the importance of reconnecting with land as a way of sustaining cultural knowledge, building *self-determination and social cohesion*, and preparing learners for leadership roles in their communities (Dechinta Centre for Research & Learning information). This approach shows how education can transcend conventional classroom walls by engaging learners in ways that honour *culture, identity and place* while strengthening their sense of belonging and resilience.



Project of Heart (Canada)

Project of Heart is an educational initiative that combines collaborative art, reflection and learning about Indigenous history to build understanding, empathy and social responsibility among students. Schools across Canada use Project of Heart to explore the history and legacy of residential schools through guided study, discussion, and the creation of *artworks that express students' reflections on what they have learned*. The project encourages classes to connect emotionally with the material, engage with survivors or community members when possible, and develop creative responses that reflect their insights and commitments to reconciliation and social justice. By integrating *creative expression, shared storytelling and community engagement*, Project of Heart uses the act of making and creating together as a tool for *belonging, empathy and identity exploration* that helps young learners situate themselves in relation to historical and cultural narratives beyond their own immediate experience (Project of Heart description). Through art-based reflection and dialogue, students can build deeper understanding and respect for diverse cultural experiences, contributing to inclusive school cultures that embrace *multiple voices and identities*.

More information about this initiative can be found: <https://projectofheart.ca/step-1-investigation-into-the-history-and-legacy-of-indian-residential-schools-in-canada/>

Key Lessons for Teachers

Outdoor and nature-based learning does not require radical changes to teaching practice, specialist knowledge, or ideal conditions. What matters most is intention, sensitivity to learners' needs, and a willingness to start small. The following key lessons are drawn from practice across different educational contexts and are intended to support teachers in making outdoor activities inclusive, adaptable, and realistic within everyday school life.

What Makes Outdoor Activities Inclusive?

Inclusive outdoor learning starts with the understanding that students arrive with different abilities, experiences, emotions, and relationships to nature. An inclusive activity is not one where everyone does the same thing in the same way, but one where everyone can participate meaningfully.

Inclusivity is supported when activities:

- offer multiple ways to engage (observing, moving, drawing, listening, building, reflecting),
- reduce reliance on complex language or abstract instructions,
- value cooperation over competition,
- allow students to choose how they participate.

Nature can help create these conditions naturally. Outdoor spaces tend to soften classroom hierarchies and reduce performance pressure. When tasks are open-ended and exploratory, students who may struggle academically often find new ways to contribute and be recognised.

Box 5: Inclusive Practice in Action

An inclusive outdoor activity might invite students to explore a space and notice something interesting. Some students may photograph it, others may sketch it, describe it verbally, collect natural materials, or simply sit and observe. All contributions are valid, and there is no single “correct” outcome.

Adapting Activities for Mixed-Ability Groups

Mixed-ability groups are the norm, not the exception. Outdoor learning offers particular advantages here, as activities can be easily adapted without drawing attention to differences.

Key strategies include:

- offering choice rather than fixed tasks,
- focusing on process rather than results,
- working in pairs or small groups with flexible roles,
- allowing students to set their own pace.

It is helpful to think in terms of “entry points” rather than levels. A single activity can be accessible at different depths. For example, during a nature walk, one student may focus on identifying plant species, another on noticing colours and shapes, and another on how the environment makes them feel.

Box 6: Questions That Support Differentiation

Instead of asking “Did you finish the task?”, try asking:

- What did you notice?
- What surprised you?
- How did this activity make you feel?
- What would you like to explore next time?

These questions invite reflection rather than evaluation and allow every student to respond from their own perspective.

Supporting Emotional Safety Outdoors

For some students, being outdoors feels liberating; for others, it can feel unfamiliar or even stressful. Emotional safety is therefore just as important as physical safety.

Teachers can support emotional safety by:

- explaining clearly what will happen before going outside,
- establishing simple, predictable routines,
- offering opt-out options or quiet spaces,
- modelling calm, respectful behaviour.

It is important to remember that participation should be encouraged, not forced. Allowing students to observe before actively engaging can be a powerful form of inclusion.

Low-Cost, Low-Risk Implementation

One of the most common concerns among teachers is that outdoor learning requires time, funding, or special equipment. In reality, many effective activities are simple and low-cost.

Outdoor learning does not need forests, camps, or long trips. Schoolyards, nearby parks, courtyards, and even streets with trees can become learning spaces. Everyday materials such as paper, pencils, chalk, string, or found natural objects are often sufficient.

Risk can be managed through clear boundaries, simple rules, and shared responsibility. Overly restrictive approaches can limit learning, while thoughtful risk awareness supports confidence and independence.

Box 7: Start Small

A first step might be:

- a 10-minute observation activity outside the classroom,
- a short wellbeing walk at the beginning or end of the day,
- a reflection circle outdoors instead of indoors.

Small, regular experiences are often more impactful than occasional large projects.

Working with Colleagues and the School Community

Outdoor and inclusive learning is easier when it is shared. Talking with colleagues, planning together, or co-leading activities can build confidence and consistency. Involving families and local communities can also strengthen learning and inclusion, especially when outdoor activities connect to local places and shared experiences.

Schools that successfully integrate outdoor learning often treat it as a collective practice rather than an individual experiment.

A Final Reflection for Teachers

Inclusive outdoor learning is not about doing everything perfectly. It is about paying attention to students, to place, and to the learning process itself. By creating space for curiosity, emotion, movement, and connection, teachers can support wellbeing and inclusion in ways that complement academic learning.

Nature does not replace teaching expertise, but it can amplify it. When used thoughtfully, it becomes a powerful ally in helping all students feel seen, capable, and part of a shared learning community.

PART III – LESSON PLANS & USEFUL ACTIVITIES

1. Lesson topic: NATURE & EMOTIONAL WELL-BEING

Grade: 10–12

Duration: 45 min

Subject: Ethics / Psychology / Life Skills / Biology / Integrated

- **Aim**
Help pupils understand how nature affects emotional health, foster a conscious bond with the environment and develop self-reflection skills.
- **Objectives**
Pupils will:
 - define “emotional health”;
 - explain how nature influences emotions and psychological well-being;
 - analyse personal experience;
 - suggest ways to use nature every day to strengthen emotional health.

FOR THE TEACHER

Research shows that regular time in forests lowers stress, boosts immunity and helps prevent chronic disease. In a screen-heavy, indoor society, “nature therapy” is becoming essential for restoring natural balance and maintaining good mental & physical health.

The lesson draws on work by the International Society of Forest Therapy and Lithuanian lecturers Mokika Peldanavičiūtė and Austė Juozapaitytė Gruodė, organisers of the 2024 congress “Forests & Their Impact on Health” and recipients of the Lithuanian Grand Duke Gediminas medal for disseminating knowledge about forests and human well-being.

Global studies over the last 30 years (Japan & worldwide) prove that mindful forest time benefits body and mind, restoring inner calm, boosting creativity, improving attention and even aiding longevity.

- Just 20 min in woods ↑ creative thinking 15 %; structured forest-therapy ↑ problem-solving up to 30 %.
- After 15 min forest exposure, cortisol ↓ 20 %; after 2 h ↓ up to 50 %.
- Post-session happiness ↑ 25 %; anxiety ↓ 18 % (especially in high-stress workers).
- NK-cell activity ↑ 20 %, strengthening antiviral & anti-tumour defence.

STRESS & ANXIETY DRIVERS

- Digital overload, info flood
- Urbanisation, city individualism
- Global competition & acceleration
- Climate change, biodiversity loss

- Population growth & resource decline
- Food/plastic pollution

STRESS & ANXIETY REDUCERS

- Clean air, limited traffic
- Walkable, human-friendly city
- Public spaces for rest & community
- Inter-generational meeting spots
- Social-support networks
- Lesson flow
 - I. Warm-up (5–7 min)
Teacher asks: “How do you feel right now?” / “How did you feel after your last walk outdoors?”
Brief discussion → teacher states topic & aim.

II. Theory snapshot

- What is emotional health?
- Nature’s effects: ↓ stress & anxiety, ↑ mood, ↑ focus, ↑ self-awareness & calm.
Mention: everyday walks, “forest bathing” (shinrin-yoku), sounds of nature on the brain.

III. Homework review (15–20 min)

Pupils spent 3 days in nature (forest, park, riverbank) and kept an emotion diary. They now share entries with class (template & sample provided).





IV. Reflection task – group work

Create an “Emotional Pharmacy from Nature”:

- pick natural “ingredients” (forest, water, sun, wind...);
- assign emotions they treat;
- present to class.

V. Whole-class discussion

Quick question: “Which natural element calms you most?”

Before / after nature mood check:

“Before: ... After: ...”

Summary

Kids with more nature contact show better concentration, lower anxiety, higher creativity.

Forest schools & outdoor education are rising as alternatives to indoor lessons.

“By rebuilding our bond with nature we restore inner balance and create a more harmonious relationship with the environment, contributing to long-term personal and community well-being.”

Take-home prompt

“What ONE nature-based thing can I do this week for my emotional health?”

VI. Homework (choose one)

- 20-min nature walk + short mood report;
- photograph a calming spot + 100-word description.

Need the editable Word version or want to localise any terms? Just holler!

2. Lesson Plan: Measuring Prices and Demand in the Real Market

Introduction

In this lesson, students explore how demand for goods is formed and how it relates to price and other economic factors. Through observation and data collection in a real or simulated market environment, students investigate how consumers make purchasing decisions and how these decisions influence demand.

Students will collect price data from different sellers, analyze consumer behavior, and examine the relationship between price and quantity demanded. The lesson combines theoretical economic concepts with experiential learning and real-world market observation, helping students better understand how markets operate in everyday life.

This lesson integrates the field of **Economics** with **data collection and basic statistical analysis**.

Thematic Areas

Market analysis – Demand for goods – Consumer behavior – Data analysis

Learning Objectives

Students will be able to:

- Understand the **law of demand** and the factors that influence demand.
- Identify the **determinants of demand**, such as income, preferences, substitute goods, complementary goods, expectations, and number of consumers.
- Collect and record **real market data**.
- Analyze price differences for the same product across different sellers.
- Develop **basic statistical skills** such as calculating averages and interpreting results.
- Strengthen **critical thinking and analytical skills**.
- Improve **collaboration through group work**.
- Use **digital tools (spreadsheets)** to record and analyze data.

Age Group

15–16 years old

Duration

110–140 minutes

Materials

- Worksheets or observation sheets
- Smartphones or cameras (optional)
- Spreadsheet software (Excel or similar)
- Calculators
- Interactive whiteboard or projector
- Computers or tablets (for groups of up to 4 students)

Introduction (10–15 minutes)

The teacher begins the lesson by presenting images or short videos of a **local farmers' market or grocery market**.

Students are asked questions such as:

- Why do the same products sometimes have **different prices** at different stalls?
- What factors might influence a consumer's **decision to buy a product**?
- Why might people buy **more of a product when its price decreases**?

Students share their ideas and discuss possible explanations.

The teacher introduces the **law of demand**, explaining that:

- When the **price of a good increases**, the **quantity demanded usually decreases**.
- When the **price decreases**, the **quantity demanded usually increases**, assuming other factors remain constant.

The teacher explains that students will investigate this relationship through **real or simulated market observation**.

Market Observation Activity (30–40 minutes)

Students are divided into **groups of 4–5**.

Each group selects **one seasonal fruit or vegetable** to study (for example: tomatoes, apples, oranges, potatoes).

Students must also identify:

- One **substitute good** (e.g., cabbage instead of lettuce)
- One **complementary good** (e.g., tomatoes and cucumbers for salad)

Task

Students collect the following information:

- Prices of the selected product from **10 different sellers**
- Prices of the **substitute good**
- Prices of the **complementary good**

If the activity takes place outside the classroom (e.g., in a local market), students may also:

- Ask consumers about the **quantity they purchased**
- Ask whether the **price influenced their decision**

Students record all data in their **observation sheets or spreadsheets**.

Data Analysis (20–25 minutes)

Back in the classroom or computer lab, students analyze the data they collected.

Each group:

- Calculates the **average price** of the main product.
- Calculates the **average price** of the substitute and complementary goods.
- Compares the prices between sellers.
- Discusses possible reasons for price differences.

Students are also asked to reflect on questions such as:

- Did higher prices correspond to **lower demand**?
- How might **income, preferences, or expectations** affect purchasing decisions?

Students use spreadsheets to organize and analyze their results.

Understanding the Determinants of Demand (10–15 minutes)

The teacher presents a short explanation or presentation about the **main determinants of demand**:

- Consumer preferences
- Income
- Prices of substitute goods
- Prices of complementary goods
- Expectations about future prices or income
- Number of consumers in the market

Students discuss how these factors might have influenced the results they observed in their research.

Group Activity (15–20 minutes)

Each group is asked to interpret their results and answer the following questions:

- Which product had the **largest price variation** among sellers?
- How might **consumer income** influence demand for this product?
- Which goods acted as **substitutes or complements**?
- How could sellers **attract more consumers**?

Students prepare a **short summary of their findings**.

Presentation of Results – Discussion (20–25 minutes)

Each group presents its findings to the class.

The teacher facilitates discussion by asking:

- What similarities or differences appeared between groups?
- Did the results confirm the **law of demand**?
- Which factors seemed most important in determining demand?

Students compare their conclusions and reflect on how economic theory relates to real market behavior.

Questionnaire (5 minutes)

- According to the **law of demand**, what usually happens when the price of a product increases?
 - a. Demand increases
 - b. Demand decreases
 - c. Demand remains the same
 - d. Production stops
- Which of the following is a **determinant of demand**?
 - a. Consumer income
 - b. Consumer preferences
 - c. Prices of substitute goods
 - d. All of the above
- Which of the following is an example of a **complementary good**?
 - a. Tea and coffee
 - b. Tomatoes and cucumbers in a salad
 - c. Apples and oranges
 - d. Rice and bread
- Why is it useful to calculate the **average price** of a product in a market study?
 - a. To compare prices among sellers
 - b. To estimate general price trends
 - c. To analyze consumer behavior
 - d. All of the above

3. Lesson Plan: One Schoolyard - Many Stories

Theme: The schoolyard as a shared ecosystem – perspective-shifting, empathy, and sustainable coexistence.

Subject: Interdisciplinary / Cross-curricular project (Natural Science, Biology, Ethics, Visual Arts, Foreign Language, etc.).

Age group: Upper elementary, lower secondary, upper secondary (ages 10–19). Adaptable for younger students by simplifying the language, reducing number of lenses and/or shortening reflection time.

Duration: 45–60 minutes (core lesson). Extended version: 2–3 lessons or a short project week

Setting: A typical small-town school environment, including a variety of outdoor sections such as:

- School entrance gate and fence
- Concrete front yard
- Sports field and running track
- Tree-lined pavements / Green areas (with trees)
- Parking area
- Optional micro-places: pavement cracks, desire paths, neglected corners

Language of instruction: flexible - mother tongue or target foreign language

Linguistic level: adaptable (A1–C1). Focus on descriptive vocabulary, nature- and school-related vocabulary, and language for telling a story (narrative).

Learning Objectives:

Sustainability awareness

- Understand how shared spaces are used, cared for, or misused
- Recognise environmental impact of human behaviour
- Explore human–nature interactions (including animals and plants)
- Develop realistic ideas for improving micro-spaces sustainably

Social-emotional learning (SEL)

- Perspective-taking (human + non-human)
- Emotional connection to place
- Sense of belonging and responsibility
- Empathy to agency progression

Social inclusion

- Multiple entry points for participation
- Valuing diverse viewpoints and abilities
- Reducing performance pressure through open-ended tasks
- Encouraging quiet observation as valid participation

Transversal skills

- Observation

- Critical thinking
- Communication
- Collaboration
- Creative problem-solving

Key competences developed:

- Environmental citizenship
- Empathy and social awareness
- Collaboration and communication
- Reflection and self-expression
- Systems thinking (how humans, animals, and spaces interact)

Materials (low-cost, inclusive):

- Paper / notebooks
- Pencils
- Chalk
- Optional: phones/tablets for photos
- Optional: string for marking micro-areas

Activities

Activity 1: Preparing emotional safety (2 minutes)

Teacher explains:

- Where the class will go
- That there is *no right or wrong outcome*
- That participation can be active or observational
- That students may walk, sit, sketch, photograph, or simply notice

Teacher script example:

“Today we explore our schoolyard. It is experienced in many different ways. It is a place full of stories. They are human stories, animal stories, and nature’s stories.

You choose how you participate in the activities. You may walk, sit, observe quietly, work alone or with a partner – they are just as valuable.”

Activity 2: Choosing a place (10 minutes, outdoors)

Students work in pairs. Their task is to find one specific area where different interests meet. In this task they *observe the space* and *identify users*.

What they do:

- Choose a place
- Identify at least TWO users
- Name the conflict, BUT NOT the feelings

Suggested language for students (very important):

- “This place is used by ___ and ___.”
- “Their needs clash because ___.”
- “The conflict here is between ___ and ___.”

Teachers can even say explicitly: “Do NOT imagine how anyone feels yet. Just name the conflict.”

Outcome of Activity (1 sentence per group): “*This place contains a clash between ___ and ___.*”

Friction/Clash examples:

1. Main entrance: High-traffic area vs. Accessibility and emotional safety needs

Most students: It’s a place of social visibility. It is a social hub. A great place to meet others.

Disabled students/students with anxiety: It is difficult to get through easily when people block the way. The steps are too high. / The crowd makes them insecure. / “I feel watched, and the noise and movement make it hard to navigate or feel safe.”

2. Tree shade vs. Ant colony

Students: It’s a perfect place to sit on hot days.

Ants: “This is our home but you’re sitting on our tunnels.”

3. A shortcut path (grassy area) vs. Gardener

Students: It’s the fastest shortcut to class.

Gardener: The grass keeps dying because everyone walks across it.

4. A hidden corner vs. Janitor

Student: It’s a private place to talk or hide during breaks.

Janitor: This is where litter accumulates because it’s out of sight.

5. Sports field vs. Teachers

Sporty students: We want to play football and shout loudly to each other.

Teachers: It creates noise near classrooms.

6. Trash bins vs. Nature

Students: It’s a convenient place to throw things quickly.

Birds/cats: It’s a source of food. Let’s tear the bags open.

Other frictions:

Sports field and running track: great for sports activities but no fountain for thirsty runners

Paths: great for strolling but walkers might scare animals away, or someone with crutches can trip over

Pavement crack: ignored corner but nature reclaims it (unintentional garden). Please ensure that students respect this 'Micro-Place' by not actually harming the organisms they find. The goal is to observe the 'unintentional garden' in the pavement crack, not to pull it out!

Parking area: good for drivers, danger for pedestrians, too hot in summer, no green elements

Activity 3: ONE perspective (10-15 minutes)

Purpose

This activity moves away from identifying conflicts (as Activity 2). Instead, students focus on one single perspective and explore daily needs, vulnerability, and how a place affects that user. This gives them an opportunity to take an emotional / ethical viewpoint. The aim is to build empathy and close observation, not to judge, or solve problems. This activity shows the nature-based / well-being / inclusive aspect of the lesson.

How it works

After identifying a place with friction, each student or pair chooses (or is given) one human or non-human perspective using a prompt card. Students observe the place only through this lens.

They may:

- quietly observe
- think and discuss
- write short notes
- sketch
- take photos

There is no required product and no “right” answer.

Language shift: from “*Students vs. ants*” → to “*I am the ant.*”

Important teacher guidance

- Students focus on **one perspective only** (no balancing of sides).
- This is not a role-play or performance.
- Students are not asked to identify conflicts, causes, or solutions.
- Encourage them that one small observation is enough.

How prompt cards are used

Prompt cards act as attention guides. They help students notice things they might otherwise overlook (e.g. safety, comfort, access, disturbance).

The cards may need to be prepared in advance or the ones provided below could be used. To effectively prepare prompt cards, the teacher should visualize potential lesson outcomes while identifying courtyard 'frictions' from both human and non-human perspectives.

Students may change cards if they feel uncomfortable or stuck.

Suggested teacher script:

“In the first activity, you looked at the place from the outside, now, you will look at it from *inside*, through the eyes of one being who lives or works here. You are no longer neutral. You are not trying to be fair or see all sides. You are trying to understand *one* experience in this place.”

Prompt card examples for students:

<p>Bird</p> <p>I live here every day. What do I need to feel safe?</p>	<p>Ant / beetle</p> <p>I live close to the ground. What hurts me? What helps me?</p>
<p>Tree</p> <p>I cannot move. What affects my body here?</p>	<p>Janitor</p> <p>I clean this place every day. What makes my work easier or harder?</p>
<p>Person in a wheelchair/ with crutches</p> <p>I move differently. What is easy? What is difficult?</p>	<p>Small animal</p> <p>I live here quietly. What scares me? What helps me survive?</p>
<p>Wild plant / weed (between cracks)</p> <p>I grow where no one planned me. What helps me grow here? What harms me?</p>	<p>Bee / pollinating insect</p> <p>I look for flowers and water. What supports me here? What is missing?</p>
<p>Person with limited vision</p> <p>I rely on sound and touch. What helps me move safely here?</p>	<p>Caretaker of the space (gardener / groundskeeper)</p> <p>I care for this place over time. What supports or damages my work?</p>
<p>Student who feels anxious</p> <p>Crowds affect me strongly. Where do I feel calmer or overwhelmed?</p>	<p>Student who needs quiet</p> <p>I look for calm and space. Where can I rest or focus here?</p>

Teacher prompt card examples (to help stuck students):

<p>Bird</p> <p>Needs: food, safe nesting, quiet Feels: disturbed by loud noise, safe in dense branches Issues: broken branches, lack of feeders in winter, lack of water</p>	<p>Ant or beetle</p> <p>Needs: undisturbed ground, moisture Feels: threatened by trampling, chemicals Issues: cracked pavement, pollution, flooding</p>
<p>Tree (as a living being)</p> <p>Needs: intact roots, water, respect Feels: stressed by soil compaction</p>	<p>The janitor (cleans the place every day)</p> <p>Needs: respectful, well-behaved students, areas kept clean and tidy</p>

Issues: pavement too close, broken bark, broken branches, thirsty	Issues: Litter near gate or benches, mud carried from sports field, broken bins
A student in a wheelchair/with crutches Needs: clear pathways, even surfaces, railings, ramps Issues: uneven pavement, narrow paths, lack of seating or shade, high steps to get into the building	Small animal (hedgehog, squirrel, frog) Needs: shelter, darkness, safe pathways, food Feels: exposed near parking areas or lights Issues: cars, lack of hiding places
Person with limited vision Needs: tactile cues, clear edges, sound orientation Issues: uneven ground, obstacles, poor contrast	Gardener Needs: time, tools, respect for plantings Issues: trampling, litter, informal paths
Student who feels anxious Needs: predictability, exits, calmer zones Issues: sudden noise, crowding, surveillance pressure	Student who needs quiet Needs: low noise, quiet corners, seating Issues: echoing spaces, crowds, no quiet zones

Further questions to help students:

- What might this animal need every day?
- What makes this place dangerous or safe?
- How do human habits affect this place?
- Who is this place *not* for?
- How would someone with a mobility aid experience it?
- Does it feel welcoming or excluding?
- Is this misuse? (e.g. the desire path: is this a "misuse" of the grass, or is it a failure of the school's architects to understand human behaviour?)
- Is this a sign the design doesn't meet real needs?
- Can I see user conflicts here? (e.g. a concrete wall as a lunch seat for a student, but a trash spot for a janitor, or a place of sunbathing for a butterfly)
- Is there something missing here? (e.g. not enough park benches, not enough bins)

Activity 4: Sharing in small groups (5-10 minutes)

Purpose: Students share what they noticed from one perspective and hear how others experienced the same place differently. The aim is listening and noticing, not discussion or debate.

How it is done

- Students form small groups (3–4).
- Each student shares *one small thing* they noticed.
- Speaking is optional. Showing a drawing or photo is enough.
- One student in each group may choose to be a silent listener.

Student prompts (choose 1–2 only)

- “I noticed ...”
- “This place feels ...”
- “From the perspective of a, I realised ...”
- “I learned something new about this place.”

Peer response (optional)

- “I liked how you noticed ...”

Teacher’s note: No criticism. No comparison.

Teacher prompts (if needed)

- “One sentence is enough.”
- “You can show instead of speaking.”
- “There is no right answer.”

Why is this activity inclusive?

- One word is enough.
- Silence is allowed.
- Students may pass or choose to be silent listeners.

Activity 5: From empathy to agency (10 minutes)

Purpose: Students move from understanding to small, realistic action. The focus is on care, not blame or big solutions.

Part A: One small change (5 minutes)

Teacher script: “If you were caring for this place, what is ONE thing you would change about how people use it?”

Examples (teachers may show these if students are stuck):

- Add a bin
- Keep paths clear
- Stop breaking branches
- Respect quiet areas
- Add water or food for animals

Students work in pairs or small groups. They choose **one idea only**.

Part B: Helping people and nature together (5 minutes)

Teachers pick *one option* that fits their group best.

- **Option 1: The Guardian question (recommended):** “If you were the Guardian of this place, what is one change that would help both students and nature here?”
- **Option 2: The habit question:** “What is one daily habit we could change here to take better care of this place?”
- **Option 3: The voice of the place:** “If this place could speak, what would it ask students to stop doing, and what would it ask them to start doing?”
- **Option 4: The 100-Euro challenge:** “You have 100 Euros to improve this place for people and nature. What would you buy, fix, or plant?” (Students don’t need prices. Just ideas.)

Teacher prompts (if students struggle):

- “The soil might need rest.”
- “Trees need protection.”
- “Bees need flowers.”
- “Some students need easier access.”

Final Activity: Reflection and closure (whole group, outdoors – 5-10 minutes)

Purpose: To close the activity calmly and help students check in with themselves. No evaluation. No discussion.

How it is done

- Students stand or sit in a circle
- Teacher explains that speaking is optional
- Students choose one way to respond (word / gesture / symbol)

Teacher script: “Before we finish, take a moment to notice how you are leaving this activity. Choose one way to respond. There is no right or wrong.”

Student choices

- **The Word:** Say one word that shows how you feel
- **The Gesture:** Show a small movement that matches your feeling
- **The Symbol:** Draw one simple shape or mark on paper or with chalk

Note to teachers: Allow time, acknowledge quietly (nod, “thank you”) and do *not* comment on content.

Optional activity: Creative outputs

1. User manual for a non-human

Students write instructions for a honeybee/ant/bird to survive in this area. (e.g. Where is the water? Where is the danger?)

2. Sound map

Students sit silently for 2 minutes. Teacher instruction: "Close your eyes for 2 minutes. Map the sounds. Is it dominated by human "noise" (cars, shouting) or natural "sound" (leaves, wind)?"

Mark: **X** = human sounds / **O** = nature sounds

3. Time machine (writing or speaking task)

- **50 years ago:** What was here? Who walked here 50 years ago? Why was this gate put here 50 years ago?
- **50 years from now:** What will this schoolyard look like 10 years from now? What will the climate be like in this yard then? If humans disappeared, what would this spot look like?

Lesson summary: One Schoolyard - Many Stories

This lesson is designed for students aged 10–19 and is highly adaptable for diverse educational settings. It transforms the schoolyard from a background setting into a primary subject of study, focusing on the "friction" between human needs, institutional rules, and the natural world.

Through a structured pedagogical design, students move from identifying objective conflicts (Activity 2) to deep, subjective empathy using human and non-human lenses (Activity 3). The activity culminates in "Empathy to Agency," where students propose sustainable, inclusive improvements for their micro-spaces. By prioritizing quiet observation and offering multiple ways to participate (such as sketching, gesturing, or silent listening) the lesson ensures that every student, regardless of their social or academic confidence, has a valid voice in the conversation.

Teacher's Post-Lesson Reflection

This section is intended for the teacher to complete after the activity to assess the impact of the session and their own facilitation.

1. Reflection on student engagement

- **Observation vs. action:** Did students find it difficult to "just observe" without trying to fix the problem immediately? How did they handle the instruction to "not imagine feelings" in Activity 2?
- **The power of perspectives:** Which prompt cards sparked the most surprise or realisation? Did the non-human perspectives (e.g., the ant or the tree) lead to different types of sustainable ideas than the human ones?

- **Inclusion:** Were students who are usually quiet or anxious able to participate comfortably through the "silent listener" option or the creative output choices?

2. Reflection on the schoolyard environment

- **Hidden stories:** What "friction" or "clash" was discovered that you had never noticed before as a teacher?
- **Agency:** Were the students' proposals (e.g., the \$100 challenge) realistic and grounded in the needs of both people and nature?

3. Reflection on personal facilitation

- **Emotional safety:** How did the class respond to the "Emotional check-out" (word/gesture/symbol)? Did I allow enough silence for these reflections to breathe?
- **My role:** How did my own perspective of the schoolyard change after hearing the students' findings?