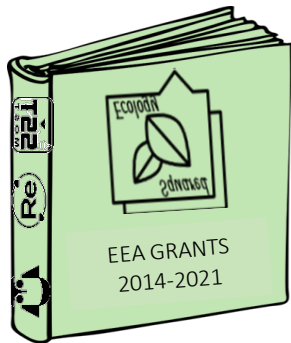


# Project Ecology Squared



*Mapping - what are the environmental subjects in secondary, upper secondary schools, vocational education, highschool and Universities in Norway*

What requirements are set nationally in Norway and what government guidelines have been set for environmental education in Norway?

In this survey, I first list information about the environmental and sustainability work as of today in kindergarten, primary and secondary school. Then about various organizations and companies that work with the environment and sustainability. All these organizations also work towards the field of education in different ways.

We have also mapped ecological training concepts at 10 universities, 6 colleges, 5 state-owned scientific colleges and vocational colleges. This is quite a big task and are now under analysis. The report will be supplemented with this when the analysis is completed.

The survey shows that there is no separate environmental subject in primary and secondary school. I have contacted the Directorate of Education nationally, Nordland County Municipality through the head of the county council and county council for culture, climate and environment, head of the planning and environment committee in Bodø municipality and the school principal at the primary school office in Bodø municipality. In the emails, I have asked what work is being done and what the plans are for the future. I also ask how much is seen abroad and the movements that take place. This is because I think it should be expected to influence what is happening in Norway. I am currently awaiting a response from everyone.

## *A comment on the work with this mapping*

Through my work as a trained pedagogue in kindergarten for many years and eventually as the founder and director of Re innovation, my experience is that environmental work depends on individuals' interest and commitment to the field. I have heard a statement from the school principal who remarked: "now that it has been required by law, we must do something about it" (when a new curriculum for primary school was to be introduced in 2020 and there was information that sustainable development would be one of three priority interdisciplinary themes). UN Secretary-General António Guterres stated at the UN summit in December 2020; "5 years have passed since the climate agreement was entered

into and now, we must declare a climate crisis"! It is absolutely essential that environmental work is tackled and promoted in education, in companies and in society in general in Norway and around the world. The work is characterized by fine words, but little action and great dependence on the individual's grip for change and individual companies' driving force.

## Kindergarten

Kindergarten is a voluntary option where children can be while parents / guardians are at work. It is an offer for children between 0-6 years until they start in 1st grade.

The kindergarten shall place a good foundation for further development and learning. The goal is a safe kindergarten with qualified and caring adults, a kindergarten where children can play and learn.

The framework plan for kindergartens, last amended on 01.08.2017, has Sustainable Development as one of seven main points in its values. That is:

*"Sustainable development will learn the children to take care of themselves, each other and nature. Sustainable development includes nature, economics and social conditions and is a prerequisite for taking care of life on earth as we know it. The kindergarten therefore has an important task in promoting values, attitudes and practices for more sustainable societies.*

*Sustainable development is about people living today being able to meet their basic needs without destroying future generations' ability to meet theirs. It is about thinking and acting locally, nationally and globally. The kindergarten must help the children to understand that today's actions have consequences for the future. The kindergarten shall lay the foundation for the children's ability to think critically, act ethically and show solidarity. The children will make experiences of providing care and taking care of the surroundings and nature. For Sami children, this means living in harmony with, making use of and reaping the benefits of nature.*

*The children will get nature experiences and get to know the diversity of nature, and the kindergarten will contribute to the children experiencing belonging to nature. "*  
<https://www.udir.no/laring-og-trivsel/rammeplan/verdigrunnlag/barekraftig-utvikling/>

On the website of the Directorate of Education, you will find three different links articles for inspiration:

Children's commitment to nature: <http://vetuva.udir.no/index.php/artikler-2017/barnehagen-ma-ta-vare-pa-barns-engasjement-for-naturen/>

Sow seeds of environmental awareness: <http://vetuva.udir.no/index.php/artikler-2017/onskjer-a-sa-fro-av-miljobevissthet/>

Learn critical thinking: <http://vetuva.udir.no/index.php/artikler-2016/barna-laerer-kritisk-tenkning-gjennom-diskusjoner/>

The framework plan for kindergartens states this:

### **Nature, environment and technology**

Experiences and experiences in nature can promote an understanding of the uniqueness of nature and the children's willingness to protect natural resources, preserve biological

diversity and contribute to sustainable development. The kindergarten will contribute to the children being happy in nature and gaining experiences with nature that promotes the ability to orientate themselves and stay in nature for different seasons. The kindergarten will facilitate that the children can have a variety of nature experiences and experience nature as an arena for play and learning. The kindergarten shall facilitate that the children can remain curious about scientific phenomena, experience belonging to nature and make experiences with the use of technology and tools.

Through work with nature, the environment and technology, the kindergarten will contribute to the children:

- experience and explore nature and the diversity of nature
- get good experiences with outdoor life all year round
- experiences, explores and experiments with natural phenomena and physical laws
- gain knowledge of nature and sustainable development, learn from nature and develop respect and incipient understanding of how they can take care of nature
- gain knowledge about animals and wildlife
- makes constructions of different materials and explores possibilities that lie in tools and technology
- gain knowledge of the human life cycle.

The staff must

- facilitate diverse nature experiences and use nature as an arena for play, wonder, exploration and learning
- give the children time and opportunity to ask questions, reflect and make their own explanations of issues, and to participate in conversations about what they have experienced and experienced
- make natural phenomena visible and reflect with the children on connections in nature
- explore and experiment with technology and natural phenomena with the children.

### Primary school

Education is compulsory and free for children and young people between 6-16 years. All young people between the ages of 16-19 have a statutory right to three years of upper secondary education.

A new curriculum was introduced in the autumn of 2020, where sustainable development is one of the three priority interdisciplinary themes in the school. The theme should be included in the subjects where it is natural.

<https://www.regjeringen.no/no/aktuelt/nye-lareplaner-for-bedre-laring-i-fremtidens-skole/id2632829/>

It is not a separate subject or elective subject in primary school regarding sustainability and the environment. But these subjects and electives have been incorporated under the interdisciplinary theme.

There is a total of 110 curricula and of these, 56 have sustainable development as a separate point in the curriculum. All information is found and copies from the Directorate of Education's website: [www.udir.no](http://www.udir.no):

**Definition of a few words:**

- Vg/vgo = videregående skole = secondary and upper secondary school
- Current = runs as a subject now
- Coming = means it has not yet started
- KRLE is a subject = Christianity, religion, philosophy and ethics

Norwegian (NOR01 06)

- Sustainable development
- In Norwegian, the interdisciplinary theme of sustainable development is about students developing knowledge of how texts present nature, the environment and living conditions, locally and globally. By meeting the subject's text diversity, reading critically and participating in dialogue, students can develop the ability to understand and deal with disagreements and conflicts of interest that may arise when society changes in a more sustainable direction. The subject Norwegian helps to make students aware and equip them to act and influence society through the language.

Norwegian for students with Sami (NOR03 04)

- Sustainable development
- In Norwegian for pupils with Sami as their first language, the interdisciplinary theme of sustainable development is about the pupils developing knowledge of how texts present nature, the environment and living conditions, locally and globally. Through critical work with text, in conversations and in discussions, the subject contributes to the students reflecting on how to strengthen and maintain Sami culture. By meeting the subject's text diversity, reading critically and participating in dialogue, students can develop an understanding of basic dilemmas and developmental features in society.

Norwegian for students with sign language (NOR05 05), Applicable for 1st grade – 9. grade and Vg1

- Sustainable development
- In Norwegian for students with sign language, the interdisciplinary theme of sustainable development is about the students developing knowledge about how texts present nature, the environment and living conditions, locally and globally. By meeting the subject's text diversity, reading critically and participating in dialogue, students can develop the ability to understand and deal with disagreements and conflicts of interest that may arise when society changes in a more sustainable direction. Norwegian for students with sign language will help to equip students to act and influence society through the language.

Norwegian specialization (NOR06 02), applicable to 8th and 9th grade

- Sustainable development
- In depth in Norwegian, the interdisciplinary theme of sustainable development is about developing students' awareness of how digital forms of communication affect

people and society. Through work with language and communication in the virtual and real world, students will develop competence in acting ethically and dealing with disagreements that may arise when people interact. Specialization in Norwegian helps to enable students to make responsible choices and to influence society through the language.

#### Basic Norwegian (NOR07 02)

- Sustainable development
- In basic Norwegian for linguistic minorities, the interdisciplinary theme of sustainable development is about developing students' language skills so that they can act and influence society through the language. Working with texts helps to make students aware and give them knowledge and skills that enable them to reflect on how people can influence nature and the environment.

#### Social Studies (SAF01 04) 1st grade -9th grade

- Sustainable development
- In social studies, the interdisciplinary theme of sustainable development is about students understanding the connection between the social, economic and environmental conditions of sustainability. Knowledge of the connections between nature and society, of how humans affect the climate and the environment, and of how living conditions, lifestyles and demographics are connected, contributes to this understanding. In social studies, students should reflect on and discuss dilemmas and tensions related to the various dimensions of sustainable development and see that actions at both individual and societal level are important.

#### Sami Social Studies (SAF02 04) 1st grade -9th grade

- Sustainable development
- In social studies, the interdisciplinary theme of sustainable development is about students understanding the connection between the social, economic and environmental conditions of sustainability. The social studies subject shall contribute to the students understanding that the use of resources by people has and has had consequences locally, regionally and globally. Knowledge of the connections between nature and society, of how people affect the climate and the environment, and of how living conditions, lifestyles and demographics are connected, contributes to this understanding. How nature is understood and managed in Sápmi / Sábme / Saepmie in the past and present is included in this. Sustainable development both locally, nationally and globally depends on democratic frameworks, active citizens and solidarity with current and future generations. In social studies, students should reflect on and discuss dilemmas and tensions related to the various dimensions of sustainable development and see that actions at both individual and societal level are important.

#### Science (NAT01 04), valid for 1st grade – 9. grade and Vg1

- Sustainable development
- In science, the interdisciplinary theme of sustainable development is about students gaining competence to make environmentally conscious choices and actions, and see these in the context of local and global environmental and climate challenges.

Knowledge of connections in nature is necessary to understand how we humans are involved in influencing it. Scientific expertise can help us find solutions to limit climate challenges, preserve biological diversity and manage the earth's natural resources in a sustainable way.

Mathematics specialization (MAT07 02), valid for 8th and 9th grade

- Sustainable development
- In specialization in mathematics, the interdisciplinary theme of sustainable development is about giving students the opportunity to explore and analyze real data sets and figures related to sustainable development.

Physical education (KRO01 05), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade and Vg1

- Sustainable development
- In physical education, the interdisciplinary theme of sustainable development is about nature experiences with an emphasis on safe and sustainable traffic. The course will contribute to the understanding that the choice the individual makes, has significance and consequences for sustainable development and protection of life on earth both locally, regionally and globally.

Arts and crafts (KHV01 02), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade

- Sustainable development
- In arts and crafts, the interdisciplinary theme of sustainable development is about students through practical creative work developing the ability to see improvements in products and to explore more sustainable lifestyles for the future. Critical examination of consumer culture and experience with the use and reuse of materials can provide students with a basis for making ethical choices. In working with technology, materials and product development, students can increase their awareness of the impact nature has on humans, and how human lifestyles affect nature and the climate.

Duodji (KHV02 02), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade

- Sustainable development
- In the subject duodji / duodje / duedtie, the interdisciplinary theme of sustainable development is about the students through practical creative work developing the ability to see improvements in products and to explore more sustainable lifestyles for the future. Students will practice sustainable traditional knowledge, where they collect and process natural materials in their own production. The students' experience with repair, use and reuse of materials provides a basis for innovation. In working with technology, materials and product development, students can increase their awareness of the impact nature has on humans, and how human lifestyles affect nature and the climate.

Food and health (MHE01 02), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade

- Sustainable development
- In the subject of food and health, the interdisciplinary theme of sustainable development is about emphasizing that both food production and food consumption should take place in ways that are not harmful nationally or globally, neither now nor

in the future. The subject will contribute to the students becoming aware of ethical and economic issues regarding food production and food consumption and of the distribution of food resources, so that they are able to make responsible choices and develop good values and attitudes.

Sami food and health (MHE02 02), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade

- Sustainable development
- In the subject of food and health, the interdisciplinary theme of sustainable development is about emphasizing that both food production and food consumption should take place in ways that are not harmful nationally or globally, neither now nor in the future. The subject will contribute to the students becoming aware of ethical and economic issues of food production and food consumption and of the distribution of food resources, so that they are able to make responsible choices and develop good values and attitudes. The subject will contribute to the students developing knowledge about how access to food is connected to global and structural conditions. Self-sufficiency, commodity trade, food sovereignty and global and regional food security are key topics. By making use of local food resources based on traditional knowledge and sustainable use of nature, students can gain insight into both values and opportunities for the future.

KRLE (RLE01 03), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade

- Sustainable development
- In KRLE, the interdisciplinary theme of sustainable development is about students exploring existential issues and participating in ethical reflection on nature and human place in it. This means that students can reflect on how people, the environment and society influence each other, and on how they can make responsible choices.

KRLE Sami (RLE02 03), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade

- Sustainable development
- In KRLE, the interdisciplinary theme of sustainable development is about the students being able to explore existential questions and participate in ethical reflection on nature and human place in it. This means that students can reflect on how people, the environment and society influence each other, and on how they can make responsible choices.

Religion and ethics (REL01 02), forthcoming

- Sustainable development
- In religion and ethics, the interdisciplinary theme of sustainable development is about students exploring existential issues and participating in ethical reflection on nature and man's place in it. This includes topics such as humanity's future and use of resources and what perspectives religions and worldviews have on this.

Religion and ethics, Sami (REL02 02), forthcoming

- Sustainable development
- In religion and ethics, the interdisciplinary theme of sustainable development is about students exploring existential issues and participating in ethical reflection on

nature and man's place in it. This includes topics such as humanity's future and use of resources and what perspectives religions and worldviews have on this.

English specialization (ENG03 02), valid for 8<sup>th</sup> grade and 9<sup>th</sup> grade

- Sustainable development
- In specialization in English, the interdisciplinary theme of sustainable development is about facilitating that students can obtain and critically evaluate information from various English-language sources. Students will have the opportunity to express themselves and interact locally and globally. Through the use of technology, students will practice digital judgment and act ethically and reflectively in communication with others. They must also develop competence in acting ethically and deal with disagreements that arise when people interact.

Norwegian Sign Language (NOR04 05), valid for 1<sup>st</sup> grade -9<sup>th</sup> grade and Vg1

- Sustainable development
- In Norwegian sign language, the interdisciplinary theme of sustainable development is about students developing knowledge about how texts present nature, the environment and living conditions, locally and globally. Through active use of Norwegian sign language, students develop the ability to understand and deal with disagreements and conflicts of interest that may arise when society changes in a more sustainable direction. Norwegian sign language helps to equip students to act and influence society through the language.

Working life subjects (ARB01 03), valid for 8<sup>th</sup> grade and 9<sup>th</sup> grade

- Sustainable development
- In working life subjects, the interdisciplinary theme of sustainable development is about giving students the opportunity to think globally and act locally in education. Since the working life subject is close to practice, it will be possible for the students to safeguard social, economic and environmental sustainability in planning and production. The work assignments are interdisciplinary, as in working life in general. Students will experience health and psychosocial aspects by working with others. The training gives students the opportunity to prevent and resolve conflicts and to provide new coping experiences in social contexts. Students will assess the environmental and economic consequences of their choices, for example by using and utilizing materials well and by being aware of reuse and repairs.

Design and redesign (DOR01 02), electives

- The subject's relevance and central values
- Design and redesign is about the students gaining experience with different design and craft techniques and materials. Through idea development and practical work in the workshop, students can develop creative joy, perseverance, self-insight and critical thinking. By exploring how products are created, students will be able to reflect on environmental challenges and consequences of overconsumption in society.
- All subjects must contribute to realizing the value basis for the education. The elective subject design and redesign will contribute to the students gaining experience of how work with redesign and reuse can contribute to a more



sustainable development. Creative work must strengthen the students' prerequisites for meeting society's needs for creative and flexible professionals. Students develop the ability to see new uses and opportunities for objects, which can make them more aware of the environmental challenges we face.

#### Technology and design (TPR01 02), electives

- Design
- The core element design is about understanding a design process and using it in practical and creative work towards a product that is functional and utilizes technological possibilities. The core element involves developing ideas and concepts with the use of sketches, working drawings, digital design tools and prototypes. Awareness of safety, consumer responsibility, the environment and sustainability is a key part of the core element.

#### Traffic (TRA01 02), electives

- Public health and the environment
- The core element of public health and the environment is about seeing connections between technology, health, the environment and traffic safety. It is also about knowing different energy sources and what is required to achieve sustainable transport. Understanding how we can see the zero vision and the zero growth goal in context is part of the core element.

#### Tourism (RSL01 02), electives

- Professional relevance and central values  
All subjects must contribute to realizing the value basis for the education. The elective subject tourism must contribute to the students being able to experience joy and mastery through activities that are linked to work with local or regional tourism services. Furthermore, the subject will contribute to strengthening the local affiliation of the students through exploration of culture and nature and through interaction with guests and local tourism actors. The elective course will also contribute to developing the students' respect for local nature and culture, and give them an understanding of the value of a sustainable tourism for a local community.
- Tourism services and sustainability  
The core element of tourism services and sustainability is about planning, marketing and performing local or regional tourism services. Furthermore, the core element is about how tourism and tourism can affect nature and the environment. Emphasis will be placed on activities that strengthen the students' communication skills.

#### Cultural heritage (LKA01 02), electives

- Professional relevance and central values
- All subjects must contribute to realizing the value basis for the education. The elective subject cultural heritage will contribute to the students' creative joy, exploration and commitment by allowing them to practice various crafts and traditions. The subject is based on the fact that we live in a multicultural and diverse society, and the cultural concept is about both material and intangible culture. The subject will also contribute to the students being able to have a greater tolerance for diversity by giving them an increased understanding of both their own and others' culture. In order to develop their ability to think critically, and act ethically and

environmentally consciously, emphasize the subject of sustainable use of cultural heritage. The subject will also help to make the students active cultural bearers.

Practical craft subject (PHF01 02), elective subject

- The subject's relevance and central values
- All subjects must contribute to realizing the value basis for the education. Through the subject, the students will develop creative joy, commitment and the urge to explore. The elective subject practical crafts will contribute to more people in the future having the competence to make responsible and environmentally conscious choices for sustainable development. The subject can help students make more reflective choices of future professions by trying out different aspects of craft techniques, both from traditionally female-dominated professions and from male-dominated professions.

Development of products and services (PVT01 02), electives

- The subject's relevance and central values  
Development of products and services is about the students gaining practical experience with innovation, and that they will be equipped to meet challenges through running a business. The subject will help them experience how they can be a resource in further education and working life. The subject will further contribute to the students developing competence within sustainable innovation. All subjects must contribute to realizing the value basis for the education. The elective subject development of products and services shall contribute to the students developing awareness of ethics and sustainability through critical thinking, reflection and interaction. Practical and creative learning processes in the subject shall contribute to the students' formation and identity development and contribute to them experiencing creative joy and mastery in their own work. Through the work, the students will become aware of and develop their own creative abilities.
- Core elements  
Production and delivery The core element of production and delivery is about developing competence to run your own business. Furthermore, it is about taking responsibility for marketing, production, finance and delivery in a sustainable perspective.

Activity theory (IDR01 02), current - introduced gradually

- Sustainable development
- In activity theory, the interdisciplinary theme of sustainable development is about promoting a sustainable lifestyle through various activities, stays and trips in nature. The students develop a joy of nature, respect for nature and environmental awareness.

Outdoor life (IDR07 02), current, is introduced gradually

- Sustainable development
- In outdoor life, the interdisciplinary theme of sustainable development is about the students developing awareness of how the human way of life affects nature and the climate. It is also about reflecting on various forms of outdoor use in outdoor life, and how this can affect the practice of local outdoor life, also related to Sami culture. Outdoor life shall contribute to the students developing the ability and willingness to

take care of the environment, and it shall facilitate that the students can travel in nature in a sustainable way.

Sports and society (IDR03 02), coming for Vg1 and Vg2

- Sustainable development  
In sports and society, the interdisciplinary theme of sustainable development is about reflecting on the consumption of sports in several areas of society, both locally, nationally and globally. Our society is dependent on volunteer work, and the subject sports and society can provide students with the knowledge and understanding they need to participate in local volunteer-based work that is beneficial to society and in accordance with the basis for natural resources. The subject can help students see the connection between social, economic and environmental conditions and how people's lifestyles and use of resources have consequences locally, regionally and globally.

Art and visual aids (KDA01 02), valid for Vg1

- Sustainable development
- In art and visual aids, the interdisciplinary theme of sustainable development is about the ethical responsibility we have to take care of resources, nature and the environment. Furthermore, it is about assessing the use of materials, and choosing sustainable and purposeful solutions.

Design and architecture (KDA02 02), valid for Vg1

- Sustainable development
- In design and architecture, the interdisciplinary theme of sustainable development is about the ethical responsibility we have to take care of nature and the environment, and about how resources are managed in society. Furthermore, it is about assessing the use of materials, emphasizing development and choosing sustainable and purposeful solutions.

The media society (MOK01 02), applicable to Vg1

- Sustainable development
- In the media society, the interdisciplinary theme of sustainable development is about connections between social, economic and environmental conditions in the development and use of modern media technology. Furthermore, it is about how digital divides help to inhibit or promote participation in central arenas.

Norwegian short residence time Vgo (NOR09 04)

- Sustainable development
- In Norwegian for linguistic minorities with a short period of residence in Norway, the interdisciplinary theme of sustainable development is about the students developing knowledge about how texts present nature, the environment and living conditions, locally and globally. Through the subject's text diversity, critical reading and dialogue, students develop the ability to understand and deal with contradictions and conflicts of interest that arise when society changes in a more sustainable direction. Norwegian for linguistic minorities with a short period of residence in Norway helps

to make students aware and equip them to act and influence society through the language.

#### Social Studies Vg1 / Vg2 (SAK01 01)

- Sustainable development
- In social studies, the interdisciplinary theme of sustainable development is about how students can contribute to sustainable social development through being active citizens. This means understanding the connections between individual choices, societal structures and the two boundaries in nature. Furthermore, students will reflect on how politics, conflicts, economics, technology and resource use work together and affect groups in society. Sustainable solutions also mean taking care of values such as equality and diversity.

#### Social Studies Vg1 / Vg2 Sami (SAK02 01)

- Sustainable development
- In social studies, the interdisciplinary theme of sustainable development is about how students can contribute to sustainable social development through being active citizens. This means understanding the connections between individual choices, societal structures and nature's limits. Furthermore, students will reflect on how politics, conflicts, economics, technology and resource use work together and affect groups in society. Sustainable solutions also involve safeguarding values such as equality and diversity.

#### Geography (GEO01 02), common subject in pre-study education program, Vg1

- Sustainable development
- In the subject of geography, the interdisciplinary theme of sustainable development is about students developing knowledge about the causes and consequences of climate change and the distribution and use of resources now and in the future. Students will learn about the consequences that changes in the location of business, land use, increased globalization and technological development can have for nature and humans. Through the subject of geography, students will reflect on issues that show that sustainable development is about seeing social, economic and environmental conditions in context.

#### Sami Geography (GEO02 02), Vg1

- Sustainable development
- In the subject of geography, the interdisciplinary theme of sustainable development is about the students developing knowledge about the causes and consequences of climate change and the distribution and use of resources now and in the future. Students will learn about the consequences that changes in the location of business, land use, increased globalization and technological development can have for nature and people. Through the subject of geography, students will reflect on issues that make it clear that sustainable development is about seeing social, economic and environmental conditions in context. The course will give students insight into sustainable development in the light of traditional Sami nature use.

#### History (HIS01 03), coming for Vg2

- Sustainable development
- In the subject of history, the interdisciplinary theme of sustainable development is about giving students an understanding of the interaction between man and nature. The subject shows how man has related to nature, managed and used resources. The subject of history also sheds light on how human activity has changed the living conditions on earth, at the same time as man has also had the ability to solve problems that have arisen. History awareness gives students an understanding that the consequences of their own choices become the story of others. Thus, they can also become aware of their own opportunities to contribute to a more sustainable society.

History for students with Sami (HIS02 03), coming for Vg2

- Sustainable development
- In the subject of history, the interdisciplinary theme of sustainable development is about giving students an understanding of the interaction between man and nature. The subject shows how man has related to nature, managed and used resources. The subject of history also sheds light on how human activity has changed the living conditions on earth, at the same time as man has also had the ability to solve problems that have arisen. History awareness gives students an understanding that the consequences of their own choices become the story of others. Thus, they can also become aware of their own opportunities to contribute to a more sustainable society.

*Vg1 building and construction technology (BAT01 03), current*

- Sustainable development
- In Vg1 building and construction technology, the interdisciplinary theme of sustainable development is about choosing sustainable solutions that leave a small environmental footprint. It also means choosing materials based on environmental considerations and using materials that provide energy-efficient constructions. Furthermore, sustainable development is about climate and environmental footprint through the use of machinery and equipment. Maintenance, reuse and recycling of materials, machines and tools are also part of the theme of sustainable development.

Vg1 craftsmanship, design and product development (DTH01 01)

- Sustainable development
- In Vg1 crafts, design and product development, sustainable development is about critical reflection on production methods, processing and selection of materials, tools and machines in the development of craft products. Furthermore, it is about practical problem solving, new development and entrepreneurship where, through a local adaptation and resource management, attention is paid to reuse, sustainable quality, ethical production, natural heritage and short-distance products.

Vg1 electrical and computer technology (ELE01 03), current

- Sustainable development
- In Vg1 electrical and computer technology, the interdisciplinary theme of sustainable development is about how energy solutions and technology can contribute to reducing climate and environmental impacts. The interdisciplinary theme is also

about understanding how one's own actions and choices have an impact on sustainable development.

Vg1 hairdresser, flowers, interior and exposure/display design (FBI01 01), current

- Sustainable development
- In Vg1 hairdresser, flowers, interior and exhibition design, the interdisciplinary theme of sustainable development is about making ethical and environmentally conscious choices through knowledge of products, materials, maintenance of tools and creative work. It is also about managing, utilizing and reusing resources in production and reflecting on how sustainable choices can affect society and nature.

Vg1 health and upbringing subject (HSF01 03), current

- Sustainable development
- In Vg1 health and upbringing subjects, the interdisciplinary theme of sustainable development is about how consumption and activities affect the environment. It is also about making environmentally conscious choices in professional practice.

Vg1 nature use (NAB01 03)

- Sustainable development
- In Vg1 nature use, the interdisciplinary theme of sustainable development is about environmental awareness and about climate change, pollution and loss of biological diversity, which the nature users of the future will help to counteract. Furthermore, it is a matter of assessing environmental challenges in collaboration with various business actors. It is also about exploring and using relevant technology to contribute to sustainable development.

Vg1 restaurant and food subjects (RMF01 03), current

- Sustainable development
- In Vg1 restaurant and food subjects, the interdisciplinary theme of sustainable development is about a society in development requiring adapted consumption. It is also about awareness of how the industry affects the environment, and how we can make the best possible use of the resources available locally, regionally and globally.

Vg1 hall, service and tourism (SSR01 01)

- Sustainable development
- In Vg1 hall, service and tourism, the interdisciplinary theme of sustainable development is about social, cultural, economic and environmental challenges in the service industry and what tools can promote ethical and sustainable choices.

Vg1 technology and industry subject (TIP01 03), current

- Sustainable development
- In Vg1 technology and industry subjects, the interdisciplinary theme of sustainable development is about giving students technological competence and knowledge about the connection between technology and the social, economic and environmental aspects of sustainable development. The interdisciplinary theme is also about being able to make responsible choices and act ethically and environmentally consciously. Furthermore, it is about the students gaining

knowledge that the actions and choices the individual makes are important for sustainable development.

#### Vg1 building and construction technology (BAT01 03), current

- Sustainable development
- In Vg1 building and construction technology, the interdisciplinary theme of sustainable development is about choosing sustainable solutions that leave a small environmental footprint. It also means choosing materials based on environmental considerations and using materials that provide energy-efficient constructions. Furthermore, sustainable development is about climate and environmental footprint through the use of machinery and equipment. Maintenance, reuse and recycling of materials, machines and tools are also part of the theme of sustainable development.

#### Vg1 nature use (NAB01 03), current

- Sustainable development
- In Vg1 nature use, the interdisciplinary theme of sustainable development is about environmental awareness and about climate change, pollution and loss of biological diversity, which the nature users of the future will help to counteract. Furthermore, it is a matter of assessing environmental challenges in collaboration with various business actors. It is also about exploring and using relevant technology to contribute to sustainable development.

#### Vg1 nature use (NAB01 03), current

- Sustainable development
- In Vg1 nature use, the interdisciplinary theme of sustainable development is about environmental awareness and about climate change, pollution and loss of biological diversity, which the nature users of the future will help to counteract. Furthermore, it is a matter of assessing environmental challenges in collaboration with various business actors. It is also about exploring and using relevant technology to contribute to sustainable development.

#### Vg1 hall, service and tourism (SSR01 01), current

- Sustainable development
- In Vg1 hall, service and tourism, the interdisciplinary theme of sustainable development is about social, cultural, economic and environmental challenges in the service industry and what tools can promote ethical and sustainable choices.

#### Vg1 technology and industry subject (TIP01 03), current

- Sustainable development
- In Vg1 technology and industry subjects, the interdisciplinary theme of sustainable development is about giving students technological competence and knowledge about the connection between technology and the social, economic and environmental aspects of sustainable development. The interdisciplinary theme is also about being able to make responsible choices and act ethically and environmentally consciously. Furthermore, it is about the students gaining knowledge that the actions and choices the individual makes are important for sustainable development.





## Organisations and companies with an ecology profile

### Young Entrepreneurship

Young Entrepreneurship is a non-profit, Norwegian organization that, together with the education system, the business community and other actors, works to develop children and young people's creativity, creative joy and belief in themselves.

*Innovators are needed everywhere!*

Bridge builder between school and working life

Our programs are implemented in close collaboration with the local business and industry. In this way, we build a bridge between theory and practice, and contribute to increasing creativity and relevance in the learning processes. Young entrepreneurship is a bridge-builder between school and working life. We have programs from primary school to higher education, in the areas of entrepreneurship, job training and personal finance.

SMART Plastic is an idea workshop for the intermediate level in primary school that deals with plastic problems. We collaborate with five of the waste disposals companies in Nordland and this autumn (2020) we also had the national TV campaign.

with

- The project starts with an employee from Young Entrepreneurship Nordland, holding a kick-off, 2-3 hours where the students get facts about plastic and plastic problems, creative exercises and a kick-start on the project.
- The students then work in groups to develop ideas that help solve the plastic problem.
- The students work in a student booklet that guides them through the process; on development of idea, building of model, preparing presentation.
- The program ends with a final, where all groups present their ideas and a jury selects the winner of best idea and best model.

In 2020, more than 1000 students in Nordland completed SMART Plastic.

### The recycling subject

There has been a dialogue for some years now about establishing a Recycling subject in upper secondary school in the county of Nordland, but this has not yet happened. I have sent an email to county council leader Thomas Norvoll and county councilor for culture, climate and environment Kirsti Saxi and am awaiting a response from them.

### Miljøagentene - the environmental agents

[www.miljoagentene.no](http://www.miljoagentene.no)

*Who we are:*

Eco-agents is an environmental organisation for children in Norway. It was established in 2006 on the basis of its predecessor "Blekkulfs Miljødektetiver" which was formed in 1992. Eco-Agents have more than 9000 members and about 50 local groups all over Norway. Eco-Agents is a democratic organisation and the children who are members decide what issues we work with and what kind of activities we organize. Our goal is to engage children in

environmental issues and make their voices heard, which is also anchored in the UNs Convention on the Rights of the Child.

### **What we do:**

Our aim is to stimulate the children's interest and love of nature, and to make them realize that the way we live our lives influence the environment. Eco-Agents arrange various types of activities both locally and nationally, which can be divided into the following main categories;

### **Local community**

- Spring clean up/clean a beach
- Bicycle repair and bicycle activities
- Nature walk and quiz
- Trip to a farm
- Treasure hunt in the forest/ocean/lake
- Swap meets and second hand market
- Garbage art
- Christmas workshop with focus on environmentally friendly Christmas gifts and wrapping
- Outdoor activities
- Participate at local festivals

### **Campaigns**

- "Beintøft" – walk, use bicycle or public transport to your school
- "Batterijakten" – collect and recycle used batteries
- Recruitment
- Idle free cars
- Composting at schools
- Biodiversity exhibitions at schools

### **Advocacy**

- Newspaper articles and TV appearances
- Information on social media platforms
- Petitions
- New environmental curriculum at schools
- Against oil drilling in vulnerable areas
- No to advertisement brochures delivered with the post

### **How we do it**

Eco-Agents is managed by a board of trustees and a secretariat based in Oslo. Every other year, Eco-Agents arrange a national meeting where the children decide which topics we will work with and who will be elected for the board of trustees. At the meeting, eight children are also elected to be part of the Children's Climate panel, who act as a voice for all of Norway's children. They have written a report which has been presented to the parliament in Norway and to the UN Panel on Climate Change.

Eco-Agents receive funding from both the Norwegian Government and commercial actors. We aim to influence our commercial partners to incorporate environment and sustainability in their line of work.

Nature and Youth is the largest environmentalist youth organisation in Norway. We have local groups who work on environmental issues all over the country. Nature and Youth seeks to be at the leading edge of the issues, speaking out on what needs to be done. We put environmental problems on the agenda, put pressure on politicians and bureaucrats, and point out environment-friendly solutions.

An ever increasing consumption of resources is the main cause of environmental problems. In Nature and Youth, young people can work on the issues they are concerned about, in their hometowns. We see the local issues in a wider context. All the small, local environmental problems put together are what makes up the threat to life on earth. We believe that everyone must lend a hand if we are to solve the environmental problems. Nature and Youth is an organisation for people who want to work actively for protection of the environment.

In Nature and Youth you can join local teams and participate in campaigns, seminars and summer camps and much more. If you just want to support the cause, but do not have very much time, it is also allowed. Everyone receives the member magazine Putsj in the mail four times a year.

NM 2021 - climate championship for high school, January 26 - February 9, 2021 Norway's Championship in Climate is a competition where upper secondary students compete to live the most sustainable lives! Over two weeks, participants log a total of 25 climate-positive activities. In this way, they learn more about how we as individuals can make a difference to reduce emissions, and at the same time inspire others to do the same!

40,000 Norwegian students have gone on strike for climate and environment in 2020. Now 20,000 VGS students will go from strike to action! This year's championship is attended by as many as 40 schools from three different counties! (See which further down the page)

### *Future-oriented awareness-raising*

This school year, sustainable development is one of three new interdisciplinary themes. Participating in a climate championship is educational, activating and engaging! When students log climate-positive activities for two weeks, the schools work with the students' action competence in a concrete way:

**“Through work on the topic, students will develop competence that enables them to make responsible choices and act ethically and environmentally consciously. The students must gain an understanding that the actions and choices of the individual are important.”**  
(Udir.no)

The climate championship is relevant in all subjects, both study specialization and vocational training. Participation is also suitable for students with a need for specially adapted education (STO).

### *Teaching material*

We deliver teaching programs that allow students to use the commitment from the climate championship in teaching. As a teacher, you teach sustainability, democracy and life skills in line with the new curriculum.

NM in climate is conducted by Ducky.

Ducky

<https://www.ducky.eco/en>

Ducky offers a web-app: A team-based competition for employees and their customers. The goal is to change habits, encourage green behavior and cut emissions.

We give you a green boost with tools based on climate data from Asplan Viak and NTNU.

Our advanced climate calculators calculate indirect emissions from consumption –

Norwegians' personal footprint. With motivated and inspired employees, your company will have a head start in the green shift.

Make sustainability your competitive edge.

Let the bumblebee roam and swirl (in Norwegian – La humla suse)

[www.lahumlasuse.no](http://www.lahumlasuse.no)

Let the bumblebee roam and swirl

Let the bumblebee roam and swirl is an idealistic association that works to ensure the living conditions of bumblebees in Norway. Our supporters include several of the country's foremost hop experts. We spread knowledge, carry out activities and recruit hop friends to achieve our goals.

Children and bumblebees.

Let the bumblebee roam and swirl has received support to carry out a larger investment in children and bumblebees. In 2020, we will collaborate with five schools around the country and train young hop researchers. Through working with bumblebees in this project, students will learn basic principles of research, they will develop closeness and understanding of the interaction in nature, and they will gain lots of valuable knowledge about bumblebees.

In addition to this, we will carry out as many as thirty hop walks specifically aimed at children. Bumblebee walks are meaningful outdoor education where the children get to be active in the learning process, at the same time as they feel close to nature and connection to their home flora and fauna, and which gives them insight into the pollination process and basic ecology in living life.

Sources of financing: Sparebankstiftelsen DNB

Loop environmental school

<https://miljoskole.loop.no>

We teach children and young people about the importance of living sustainably and taking care of resources!

Children and young people are concerned about what they can do to take better care of life on earth, but many are unsure of what they can do and whether it will mean anything. We at LOOP Miljøskole want to give children and young people a relationship to how much resources and climate emissions that go from something is made, until they have it in their hands and after they throw it away as waste. This is the key to giving them a deeper understanding of how the different choices they make every day can have both positive and negative ripple effects on many different levels.

LOOP Miljøskole creates free teaching resources for schools and kindergartens, adapted to current curricula. Through our programs, teachers and educational staff can teach children and young people about how and why we sort at source, what happens to the waste and why this is important from a resource perspective. Together with NRK Skole, we make a series of educational films about sustainable development. The films will be about resource scarcity, marine litter, circular economy and the consequences of overconsumption in today's society. They will also give students concrete tips for a more sustainable lifestyle.

LOOP Miljøskole is part of LOOP, the Foundation for source sorting and recycling. We are a non-profit foundation that works to get people to source sort more and throw less. Our activities are rooted in, and will contribute to achieving the EU's goal of 65% material recycling of household waste and similar industrial waste by 2035. We work closely with municipalities and waste management companies that use our services to reach out with good and fact-based information about all types of waste, and we act as a link between the recycling companies on the one hand, and municipalities and waste disposal companies on the other.

LOOP also runs the source sorting guide [sortere.no](http://sortere.no), which will make it easy to make good environmental choices in everyday life, by giving private individuals answers on how they can sort at source and deliver different types of waste, and not least get good tips on how to create less waste through for example to reuse and repair, rather than throw away. LOOP has received operating support from the Ministry of Climate and the Environment since 2005. Everything is free and adapted to new competence goals.

Nature Conservation Association (in Norwegian - Naturvernforbundet)  
[www.naturvernforbundet.no](http://www.naturvernforbundet.no)

#### *About the Nature Conservation Association*

The Norwegian Society for Nature Conservation was founded in 1914 and is Norway's oldest nature and environmental protection organization. We are a democratic member organization with over 35,000 members and around 100 county and local teams throughout the country. The Norwegian Society for Nature Conservation works with a wide range of issues within environmental and nature conservation, but especially with the areas of nature conservation, climate, energy and transport.

#### *Members*

The Nature Conservation Association has over 35,000 members. They are the backbone of the organization and carry out the local work. The members are organized in local teams

which in turn are organized in county teams. The county teams work with environmental issues at county level, assist the local teams and coordinate their work.

The Norwegian Society for Nature Conservation has a youth organization, Nature and Youth (in Norwegian - Natur og ungdom), and the children's organization Miljøagentene. These are affiliated as independent subsidiaries.

The Norwegian Society for Nature Conservation is affiliated with the international organization Friends of the Earth International, one of the world's largest networks for environmental organizations. In 2009, the Nature Conservation Association's veteran group was founded. It consists of Nature Conservation Association members over 60 years.

Bellona

<https://bellona.org>

#### *About Bellona*

The Bellona Foundation is an independent non-profit organisation that aims to meet and fight the climate challenges, by identifying and implementing sustainable environmental solutions. We work towards reaching a greater ecological understanding, protection of nature, the environment and health. Bellona is engaged in a broad range of current national and international environmental questions and issues around the world.

#### **Who we are working with?**

In principle, anyone. Pollution knows no borders, thus Bellona is working with and against anyone and everyone relevant to our work, both nationally and internationally. This can be anyone from politicians, bureaucrats within ministries and agencies, decision-makers in business, media, other non-profit organizations and foundations, to participants in research and education.

Bellona has a solution-oriented approach to the environmental challenges and we have since 1998 had extensive cooperation with a number of companies in different industries and businesses. Our approach is that to achieve results one must jointly work out the best social and environmental solutions, and making these financially profitable/ viable.

Thus the partners we aim to work with in our partnership programs are companies that are strategically placed in relation to (Norwegian) industries. The partners can be as much a part of the solution as the problem, but are important allies in political processes; they have the necessary expertise and knowledge in their field, and commonly share the willingness to position themselves as pioneers that identifies and demonstrates new solutions.

**However,** Bellona is and has always been an independent watch dog that investigates/ scrutinizes and reports any kind of environmental crime we might uncover.

## Avfall Norge - Waste Norway

Avfall Norge is a Norwegian waste management and recycling association leveraging 30 years of industry-specific knowledge to promote and develop socially responsible waste management policies in Norway and Europe.

Our members are responsible for the treatment of more than 95 percent of all household waste in Norway and represent both public services and private companies.

- We offer training and guidance,
- ensure sound policies and constructive political dialogue,
- and initiate research and development projects to build industry capacity.

Avfall Norge was founded in 1986 with the aim of coordinating and maintaining municipal interests and inter-municipal cooperation in the waste management sector. Since then, the association has remained a competitive actor in a rapidly changing industry and remains a nationwide resource for public services and private companies alike.

«Student and looking for experience in the recycling industry? Through a collaboration between several different players in the industry, we offer internships at a number of companies. Internship at one of our companies gives you experience and perspectives in sustainability, circular economy and the green shift. We need all fields of study. " Follow REdu on Facebook and Instagram for inspiration and updates.

## Salt

[www.salt.nu](http://www.salt.nu)

SALT is an independent competence company with knowledge of and for the coast. Traditionally, we provide services in research, consulting and dissemination related to the sea and the coast. Said in the SALT way, we are passionate about the future of the coast from sea urchins to human capital! We have a high level of professional expertise in marine ecosystems, coastal industries and entrepreneurship - with cutting-edge expertise in northern issues. We focus on the entire value chain - from resource to application. Our unique and untraditional competence team forms your link between marine resources and value creation.

SALT is impartial in all resource and societal debates concerning the marine environment and the coast. Our role is to be an honest, credible and solid knowledge provider against any decision basis.

## Project Blue Responsibility - HAVPLAST

- BLUE Responsibility is one of SALT's blue heart children; an ongoing dissemination project on marine litter under constant development. Through a three- to five-day school project, which includes beach cleaning and waste analysis, the goal is to inform, inspire and influence future fishermen and other seafarers to make good choices and take care of the sea. The project module was initially developed in collaboration with Vest-Lofoten upper secondary school, and has since been implemented on Bodin and Nordkapp upper secondary schools' BLUE lines.

Furthermore, the goal is to develop video material, as well as further rollout through the project Blue Responsibility - HAVPLAST and the creation of a web portal with free access for all.

- A total of five teaching films for upper secondary school will be made in collaboration with Ferdi film about marine litter. The first film was released on January 6, 2021.
- The project is funded by SALT, the Norwegian Environment Agency, Nordland County Municipality and the Fisheries and Aquaculture Research Fund (FHF).

## Additional interesting information

### Ecosia Search engine

<https://www.ecosia.org>

Ecosia is a search engine where each search contributes to the planting of trees in various projects around the world run by the Ecosia organization. You can choose Ecosia as your regular search engine. They also have a separate app that can be downloaded so that all searches from your mobile can contribute.

- You can follow their various interesting and exciting projects around the world.
- The various projects provide valuable access to knowledge that teachers and students can use in teaching and projects

Bodø 10.01.2021

Dag Ofstad, Project Manager

Nina Morvik, Researcher, Teacher  
& Trainer