RIDE & SMILE

Greenhouse effect & Climate change

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This project reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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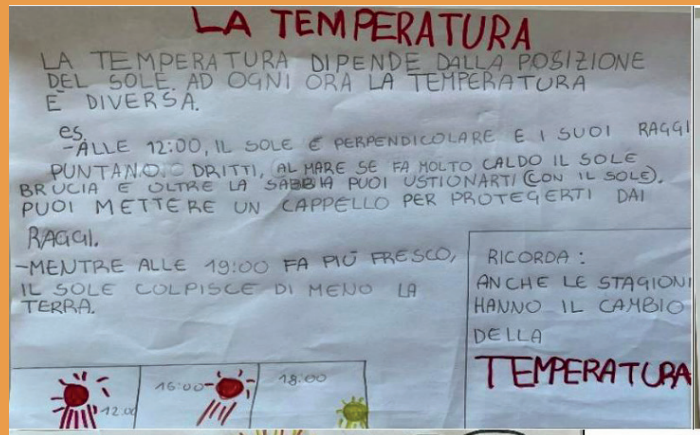
Ride and Smile **Educational activities on environmental awareness**	**Module:** **Greenhouse effect and climate change**	**Target group:** 9 - 11 years
Subject(s): Primary Science and Social Sciences, Mathematics, Italian, English, Art, Geography, History **Topic: Greenhouse effect and climate change** **Duration:** 40 hours **Material:** Worksheet „Traffic census“ Use of technological tools (LM, computer, camera and video camera), educational software, consumables, recycled materials, video, books, guides, leaflet, material distributed by environmental associations operating in the area		
Content areas / Main key areas: • Nature and environment	**Description:** Given the damage caused by man to the environment, it becomes an unavoidable challenge for future generations to plan environmental education for sustainable development, understood as a process of reforming the way of living and conceiving the environment. The proposed activities aim to lead pupils to acquire full awareness of their role in the environment, starting from the knowledge of the territory and of the problems related to its unsustainable use (pollution, waste production, management of natural resources, alteration ecosystems ...). The educational intervention of the school, promoting „an active pedagogy“ of mediation, which enhances „the experience, exploration, relationship with peers, with nature, objects, art, the territory“ (from Indications for the Curriculum), it is essential so that the child can integrate the different aspects of reality, reflect on correct behavior for the protection of the environment and its resources, educate on „good practices“ for „sustainable development“. It becomes more and more important to re-educate, adults and children together, to a logic that has nature and its resources at heart, to avoid damage to the ecosystem but also waste, excessive and unmotivated consumption which, even in small actions of every day, can be avoided. Significant paths will be created, with research and experimentation activities that will allow to overcome the barriers between disciplines. The course aims to train aware and responsible citizens, in a European and global context, towards the protection of the natural environment through: full awareness of their role in safeguarding the environment; knowledge of the territory and of the problems connected with its unsustainable use; the development of the ability to manage and design new solutions; the acquisition of knowledge relating to environmental systems and the relationships that integrate them; the awareness that the great problems of humanity can only be solved through close collaboration and respecting the diversity of peoples.	

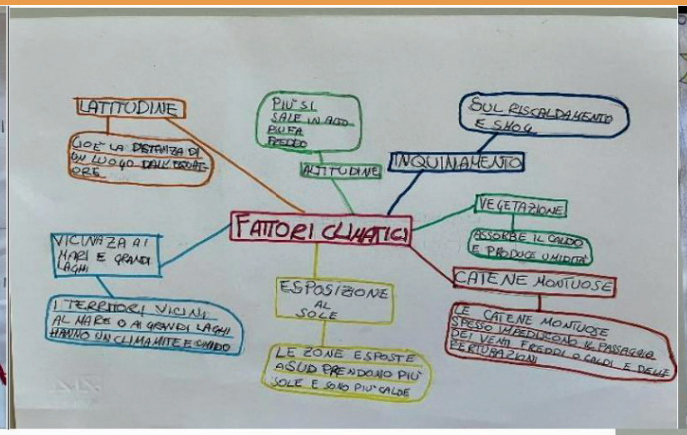
Learning requirements: The learners • Knowing how to explore an environment. • Knowing how to identify a problem, analyze it and elaborate proposed solutions. • Problem-solving skills •	**Learning objectives / Expected competences:** The learners can • Knowing the area through the perceptive approach and direct observation • Identify and describe the physical and anthropogenic elements that characterize the landscapes of one‘s living environment and one‘s reality • Recognize human positive and negative interventions in one‘s living environment • Observe and interpret natural environmental transformations and those made by men • Describe simple phenomena of daily life related to climate change • Use the internet to find news and information • Represent the observation data through tables, maps, diagrams and drawings • Explore the typical elements of a natural and artificial environment. • Acquire awareness of the importance of respect and environmental protection • Know and acquire attitudes of protection and respect towards the environment and living beings • Identify an environmental problem, analyze it and elaborate proposed solutions. • Explore the typical elements of a natural and human environment, understood as an ecological system. • Identify current situations of respect / exploitation of the environment. • Identify the main effects of human intervention on the environment. • Use common natural resources (water, air, soil ...) in a conscious and responsible way • Practice forms of reuse of materials • Know the problem of the distribution of resources on Earth, their quantity and their regeneration. • Promote appropriate attitudes to respect and protect the environment • Encourage the reflection that the environment is an asset to be defended

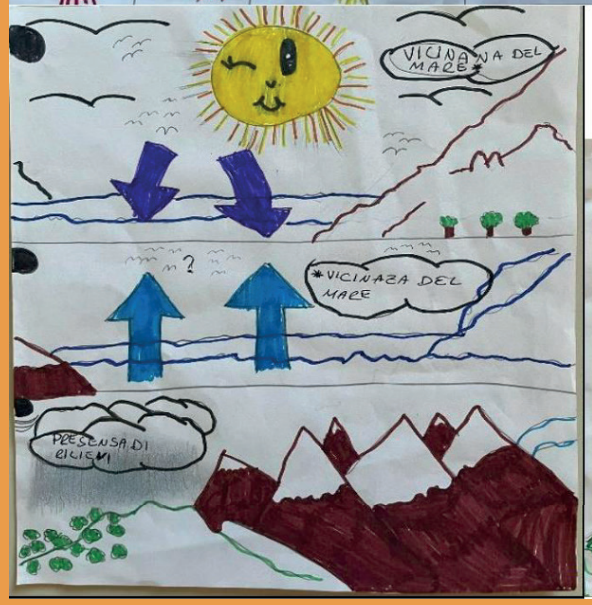
	• • Analyze their own behaviors by evaluating the consequences they may have on health and the environment • Develop an „environmental awareness“ to actively and consciously • participate in one‘s own environmental choices, aimed at the highest level of well-being and health • Acquire and interpret information • Coping with problematic situations • Encourage the reflection that health and the environment are assets to be defended • Analyze their own behaviors by evaluating the consequences they may have on health and the environment • Helping students to develop an „environmental awareness“ to participate actively and consciously in their environmental choices, aimed at the highest level of well-being and health • Be aware that everyone with their own behaviors can contribute to climate change

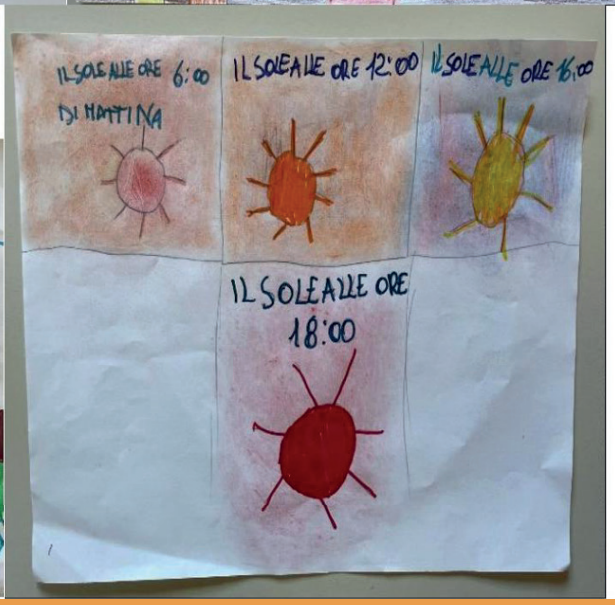
Lesson plan			
Sequencing & phase objective	**Action steps and impulses**	**Concretized competence expectations**	**Learning materials**
Phase 1 **Getting started** **Introduction** • Identify and understand what are the factors of climate • Recognize the elements through which the climate is manifested • Understand that these changes are also due to human action	Starter activity • The teacher starts the activity asking What climate change is..? • Students discuss the topic and give their opinion • Students watch some videos on climate change Main Activity • Students analyze climate factors and elements: rain, wind and in particular the temperature • Main Activity • Students analyze climate factors and elements: rain, wind and in particular the temperature Final Activity • Students conclude by drawing pictures illustrating their impression on the topic	The learners can • Acquire and interpret information • Dealing with problematic situations • develop an „environmental awareness“ to actively and consciously participate in one‘s own environmental choices, aimed at the highest level of well-being and health	technological tools (LM, computer, camera and video camera); educational software; consumables; recycled materials; video; books; guides; leaflet; material distributed by environmental associations operating in the area
Additional hints, media, useful links https://www.youtube.com/watch?v=Hkk9zKiR1_o&ab_channel=CaritasLodigiana https://www.youtube.com/watch?v=fFDxfikcZJI&ab_channel=Saint-GobainItalia			

Impressions









Lesson plan			
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Phase 2 Knowing how to recognize what "virtuous behaviors" can be to be implemented to slow down such changes	Starter activity • Teacher opens discussion after watching some videos • Students try to identify the causes of the changes detected; understand what the greenhous effect is; identify cause-effect links • Students identify which behaviours affect the changes detected. Main activity • Students create posters that summerize the causes and effects of climate change and pollution of the air, water and soil • Where possible students make outdoor activities, in the school garden or in a nearby park for studying and researching such as oberving characteristics and habitats of pollinating insects, observing and researching the most suitable plant species to attract them. Finishing activity • Students make sustainability challenges, quizzes and ganes: 1. Green friendly: find environmentally friendly actions 2. Target the mole and ... down with waste!	The learners • Acquire and interpret information • Dealing with problematic situations • develop an „environmental awareness" to actively and consciously participate in one's own environmental choices, aimed at the highest level of well-being and health	technological tools (LM, computer, camera and video camera); educational software; consumables; recycled materials; video; books; guides; leaflet; material distributed by environmental associations operating in the area
Additional hints, media, useful links https://www.youtube.com/watch?v=VxdusxIRIkQ&ab_channel=iolanz https://www.youtube.com/watch?v=Ei4DcrFeRQo&ab_channel=MauroBorgarello https://wordwall.net/play/11192/027/334			

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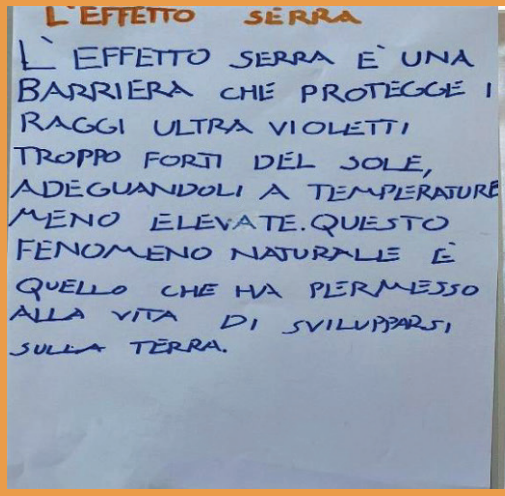

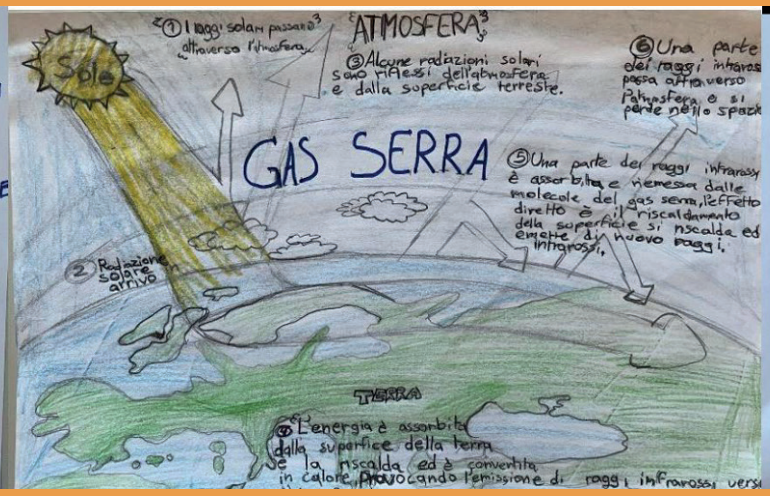

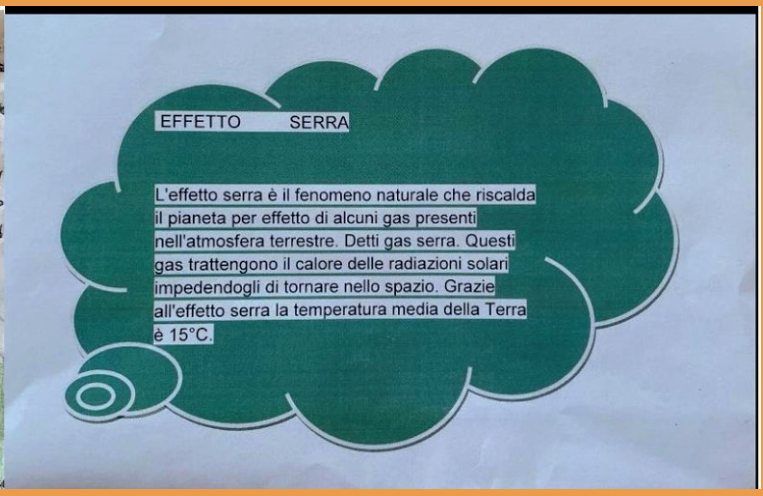

Lesson plan			
Sequencing & phase objective	**Action steps and impulses**	**Concretized competence expectations**	**Learning materials**
Phase 3 Use the internet to find news and information Represent the observation data through tables, maps, diagrams and drawings	Starter activity Teacher and students identify the elements where the pollution come from Main activity Students analyse related data to the emissions of the various means of transport Students analyse related data to emissions in the own city Students analyse the connection between air quality and the effects on the health of citizens Finishing activity Students do graphs (paper and digital) Students make a 3D model relating to the data of CO_2 grams - kilometer – person	The learners can • Acquire and interpret information • Dealing with problematic situations • develop an „environmental awareness“ to actively and consciously participate in one‘s own environmental choices, aimed at the highest level of well-being and health	technological tools (LM, computer, camera and video camera); educational software; consumables; recycled materials; video; books; guides; leaflet; material distributed by environmental associations operating in the area

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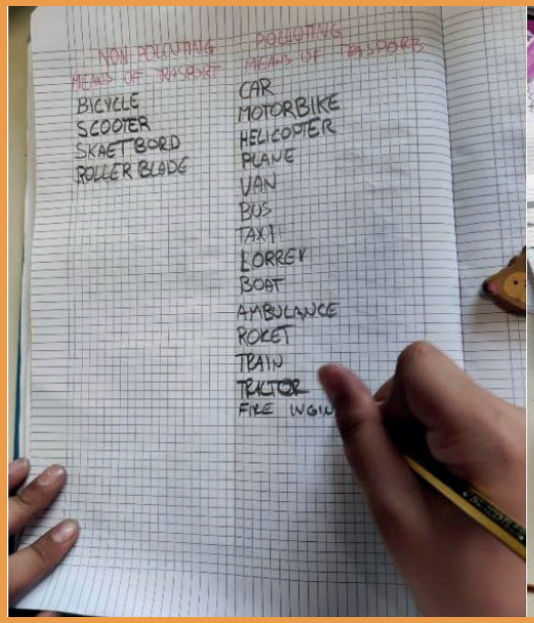

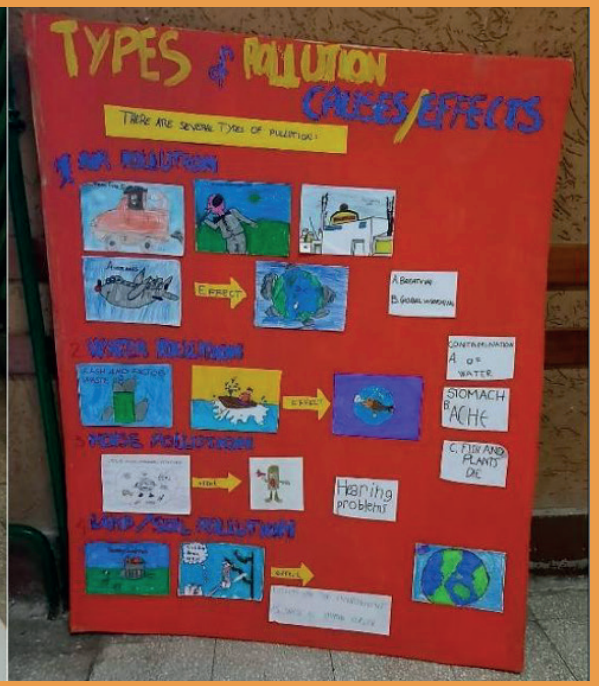

Lesson plan			
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Phase 4 Knowing how to recognize what "virtuous behaviors" can be to be implemented to slow down such changes	Starter activity • Teacher and students deepen the study of the 2030 agenda • Students analyse the Greta Tumbergh phenomenon • Students watch videos on the subject Main activity • Students study the ecological footprint and biocapacity • Students calculate the ecological footprint with their family using the calculator developed by the WWF Finishing activity • Open discussion on the ecological footprint • GAME / quiz 1. „Measure your ecological footprint" 2. The right way	The learners can • measure the distance • choose the right transport to the target while taking care of the environment	technological tools (LM, computer, camera and video camera); educational software; consumables; recycled materials; video; books; guides; leaflet; material distributed by environmental associations operating in the area
Additional hints, media, useful links https://www.teleambiente.it/greta_thunberg_2019_personaggio_dell_anno/ https://www.youtube.com/watch?v=rYCG_Ko9ikg https://www.youtube.com/watch?v=CiGG1xbgIAk&ab_channel=geom.SilvioPopoli https://www.wwf.ch/it/vivere-sostenibile/calcolatore-dell-impronta-ecologica https://wordwall.net/play/11229/150/208 https://wordwall.net/play/12365/845/768 Theatrical show „Mondo": the theme is the protection of the environment, in which Mondo, „Mondo" is the diminutive of Raimondo, a simple-minded boy and a lover of nature will decide to climb a tree to prevent it from being cut down.			

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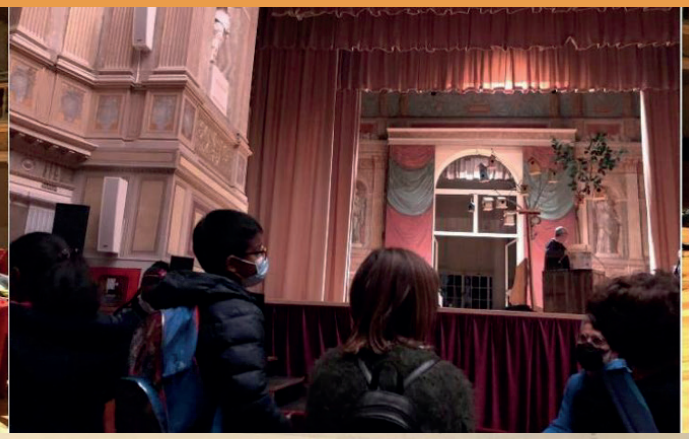
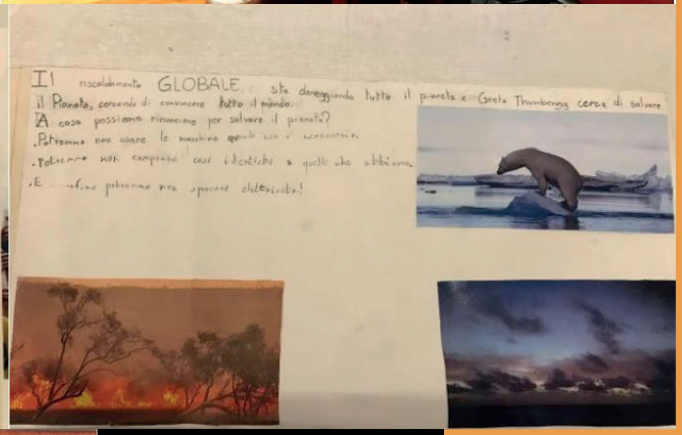




La tua impronta personale

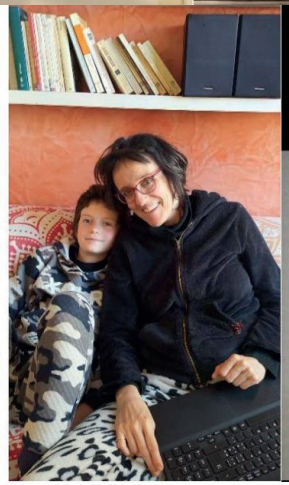
Congratulazioni! Un risultato assolutamente esemplare. Puoi esserne fiero! Nonostante il peso aggiuntivo dell'inquinamento legato alle infrastrutture e alle istituzioni pubbliche, sei un peso piuma per il nostro pianeta. Grazie di cuore e continua così!

Il tuo risultato in equivalenti di CO_2 all'anno

7.59 Tonnellate

Media svizzera in equivalenti di CO_2 all'anno

13.51 Tonnellate

Media mondiale in equivalenti di CO_2 all'anno

6.4 Tonnellate