

NAME OF MODEL/METHOD/ APPROACH	OVERVIEW (short description)	BASIC PRINCIPLES (including connection to outdoor learning)	BENEFITS/ EVIDENCE	TIPS (helpful hints how to translate the action into behavioural change)	INFORMATION SOURCES (www, literature, articles...)	EXAMPLE OF PROVIDER of posted model/method	Link to related case study?
Audio-tours/Geocaching	Audio-Tours or Geocaching connect a classical field trip or hike with a certain topic, be it cultural, historical, political, scientific or about the flora and fauna of a region. It engages students through using new technologies such as smartphones or GPS-device to distribute information.	1. Students are equipped with the technology and explore the place (→ Place-based-Learning) on their own/in small groups. 2. Whereas Audio-Tours are directly giving knowledge through small podcasts to the listeners, Geocaching involves the learners like in a scavenger hunt to gather certain information.	The tour or hunt takes place outdoors and one of the main benefits is that it engages the students physically. It is assumed, that the students interest in such tours is higher than in a classical field trip because of the technologies used. It can be used to teach a variety of subjects outdoors like history, geography, social studies, math, science etc.	It can be informal learning or, if done with a class of students, non-formal. When used as a non-formal teaching method, an evaluation and presentation of the findings makes sense, as well as linking it to school subjects.	- Taylor et. al. (2010): Geocaching for Schools and Communities. - http://www.geocaching.com	In Romania: A cultural-historical Audio-Hiking Path of a non-formal Education Center: http://audiowanderweg.seli.gstadt.ro	No
4MAT model	4MAT is a process for delivering instruction in a way that appeals to all types of learners and engages, informs, allows for practice and creative use of material learned within each lesson.	It is a 4 stage learning model : meaning - concepts - skills adaptation. It can be use in any type of the program, including outdoor education.	Very well explained in the video http://www.aboutlearning.com/index.php?option=com_content&view=article&id=210&Itemid=110		more information on http://www.aboutlearning.com/	CZ: very well used in the school lessons on global issues (and any other topics)	No
5 E's Instructional Model	Consists of 5 phases, which have a specific function, contributing to the teachers coherent instruction and the the students' formulation of scientific knowledge, attitudes and skills.	The five phases of the BSCS 5E Instructional Model are designed to facilitate the process of conceptual change. The use of this model brings coherence to different teaching strategies, provides connections among educational activities, and helps science teachers make decisions about interactions with students. Each phase of the model and a short phrase to indicate its purpose from a student perspective are: Engagement - students' prior knowledge accessed and interest engaged in the phenomenon. Exploration - students participate in an	BSCS programs incorporate a conceptual framework that is clear, progressive and integrated with many pedagogical strategies. The concepts build in a way that students understand. The activities, investigations, and readings engage students in a way that allows them to "have fun" while learning, opening them up to the natural world around them. There is evidence that shows that when people are	Nicola Kitchen, Faculty of Education, University of Cumbria. This First Class resource will be taking a close look at planning for challenge and progression in science learning. The University of Cumbria 'First Class' guides are designed to be user friendly quick reference aids to key areas of practice. They aim to help you as a new teacher to sustain a questioning approach, to continue to develop your pedagogy, and to make a contribution to raising	https://portfolio.pebblepad.co.uk/cumbria/viewasset.aspx?oid=494359&type=webfolio&pageoid=495354	YES-OPAL AIR QUALITY SURVEY	
Earth Education IAA model	Comprehensive programs using the original methodology, forthcoming in the International Centre in USA and distributed worldwide. Earth education is the process of helping people to live more harmoniously with the natural world by... Understanding how ecosystems work Developing a long lasting love and respect for the Earth and its life-forms Reducing their own impact on its natural resources	An Earth Education Programme is a skillfully crafted, sequential learning experience designed to help participants live more harmoniously and joyously with the earth and all its life. There are a number of important characteristics which define an Earth Education programme - such as conceptual activities (conceptual path, conceptual Encounters), work with IAA model. The most important parts take place in nature; Earth Walks - a number of activities connected to the "sharpening of the senses", etc.	CZ: Earthkeepers in the Czech Republic: Experience from the implementation process of an earth educational programme - see http://www.envigogika.cuni.cz/index.php/Envigogika/article/view/397/pdf_397	AN EARTH EDUCATION PROGRAMME is carefully crafted series of learning experiences which ... Motivate and pull the learners in Emphasise major ecological understandings Involve exciting tasks that are both 'hands on' and 'minds on' Weave activities together with a clear, easily remembered formula to aid comprehension and retention Transfer the learning tasks to both school	Matre, S. van. (1999). Earth Education .. a new beginning. Greenville: The Institute for Earth Education. http://www.earthed.org.uk/resources/index.html	CZ: SEV Český Ráj, program Strážci Země (Earth keepers) CZ: some activities used in residential programs of Jizerka environmental centre UK: Bishops wood centre	No
Education for Sustainable Development	The United Nations has popularized citizens actions and shifted environmental educationers practice with the concept „Education on Sustainable Development“. It means in its whole variety teaching for sustainability, recognizing education as an essential tool for sustainable development.	development and to identify the problems of non-sustainable development. This means drawing conclusions on environmental, economic and social developments in their interdependence, on the basis of analyses of the present and studies of the future, and then using these conclusions to take decisions and understand them before implementing them individually,			De Haan, Prof. Dr. Gerhard and the Transfer-21 Programme's Quality and Competences' working group: Guide Education fo		No
Enquiry based learning	Observation, experimentation and teacher-guided constructure by the child of his/her own knowledge	Essential Features: 1 Learner engages in scientifically orientated questions. 2 Learner gives priority to evidence in responding to questions. 3 Learner formulates explanations from evidence. 4 Learner connects explanations to scientific knowledge. 5 Learner communicates and justifies explanations. There is significant opportunity for this model to work outdoors, as the 5 aspects can be lead by the teacher in varying amounts and / or lead by the materials and environment in varying amounts.	The focus is on student inquiry as the driving force for learning. Teaching is organised around questions and problems in a highly student-centred inquiry process. Through Inquiry based learning, students learn through and about scientific inquiry rather than by teachers presenting scientific content knowledge. This method supports thinkers and helps their minds to develop so that they can approach new learning creatively and energetically.	By focussing on topics and subject matter that allow students to collect evidence about their personal impact on the environment and ways in which they can reduce this, students engage with the process. By providing skills which aid making a change and feedback from monitoring this will drive the short term learning into a longer term behavioural change	http://www.pathwayuk.org.uk/what-is-ibse.html	YES-Climate change case study	
Flow learning model	Sequence of four outdoor stages of a program aimed at developing a relationship with nature	1. Awaken Enthusiasm 2. Focus Attention 3. Experience Directly 4. Share Inspiration. A Flow Learning session begins with lively, playful activities that awaken the students' energy and enthusiasm. The second series of activities challenge the students to focus their attention through their senses of touch, hearing, and sight. The third stage offers activities that immerse the students in	CZ: Some outdoor providers use the activities in their program, but usually separately, not whole model. They are very popular and usually very appreciated. We have also experience with whole program run according the flow-learning model with evaluation data. This article	Benefits: Flow learning chart http://www.sharingnature.com/flow-learning/flow-learning-chart.php	Joseph Cornell: Sharing nature with children http://www.sharingnature.com/resources/books-ods.php	CZ - Sdružení TEREZA, Les je přítel (programme run according to Cornell model with evaluation)	No
Forest kindergarten	This method helps young children living in an urban context to develop a bond with nature and learn from it in a way modern society is not used to.	Exploration is the key strategy to the method. Children are left free to explore and learn at their own pace from the inputs the environment provides. Explanation and comparison are always available when asked for and provided for more organized activities. Elaboration of the experiences made needs also to be a daily routine and can be done through circles and rituals in which children were asked to speak or draw the «best of» their day or to thank different natural elements for the	Offers parents a new educational model to go along with the traditional one and gives them the possibility to choose a more innovative way of schooling focused on a more sustainable and eco-compatible lifestyle.	Let the children explore and learn at their own pace trying to be a guide in the discovery process.	http://www.asilonelbosco.it/ http://www.montessorinpratica.it/ http://waldkindergarten.ch/	http://www.fondazionevilla ghigi.it/ Fondazione Villa Ghigi	Yes - Forest kindergarten
Forest school	The forest school is an education mode lasting many days at a different location than the school and building on the local environmental characteristics. Field experience is gained through active cooperation and interaction of students. The curriculum, the development of abilities and social skills connected to group activities are strongly and organically related to the localities.	Forest school is the best location for EE. Its aim is to discover nature in many different ways, in order to raise sensitivity and ecological approach in children towards the state of natural environment and to create proper environmental attitudes, behaviour and values. Forest school enables children to observe human interventions and their environmental impacts. The main source and way of learning is observation, experimenting, personal experience, and games based on experience. The learning process is primarily based on cooperative learning techniques, employing project method. Learning	Experience based. Children face real problems during problem solving. Since a class of children takes part and their are usually at a similar level of knowledge, it makes work easier for them. No time needed for team building, for example. In Hungary, it takes place during school term, so more time to get prepared and follow up is more efficient.	In a forest school children can experience environmentally aware way of living which they can accept, take home and integrate into their every day life. It is also an important venue for socialization.	Lehoczky János: http://www.ofi.hu/tudastar/lepek-okoiskola-fele/bilkurolandne-erdei	Lehoczky János	Yes - Wooded meadow HU

Global consumption - Guided Tours in cities	During a city tour on the topic of Global Consumption the students explore different shops and organisations and get to know their cities with a different focus: Equal payment, Food and nutrition, Consumerism, Global justice.	1. The principle behind is exploring the power of every individual as a consumer. 2. The students and other participants in the Guided Tours on Global Consumption look behind the facade of favourite products, brands or shops and develop a more critical thinking. 3. After and during the tour, alternatives and solutions are discussed into daily actions more easy.	Through dealing directly with their favourite brands or products, students develop a sense of critical thinking on global and social processes like capitalism, globalisation, climate change, Peak Oil etc. There is a strong link to their own daily life which makes the transfer from knowledge into daily actions more easy.	The best is, to do this tours in your own city or a neighboring town. If no such initiative exists in your place, you can also create such a tour in a project with your students!	An english handbook can be found here http://www.konsum-global.de/files/Pixih eft_english-version_klein.pdf ;	In Germany: The organisation for nature protection BUND has local initiatives in more than 50 cities, offering such tours: http://www.weltbewusst.org/stadtrundgang-bundesweit/	No
Interpretation	Model for interpretive programs for different target groups based on communication the "main idea" of the place. Heritage interpretation is "an educational activity which aims to reveal meanings and relationships through	Selection of the main theme (ideas), program development within 4-5 subtopics, connecting with a specific site; applicable to cross-country programs, exhibitions etc.		Selection of the main theme (ideas), program development within 4-5 subtopics, connecting with a specific site; applicable to cross-country programs, exhibitions etc.	HAM, Sam H. Environmental interpretation : a practical guide for people with big ideas and small	CZ - Společnost pro Jizerské hory, interpretative 3-day long program for children KÖRENY (ROOTS)	No
Place- based education	Place-based education helps students learn to take care of the world by understanding where they live and taking action in their own backyards and communities.	Successful place-based programs involve students as participants in the life of their communities. Successful projects demonstrate many of the following characteristics:•Learning takes students out of the classroom and into the community and natural environment.	Benefits of placed-based Education http://www.peecworks.org/PEEC/Benefits_of_PBE-PEEC_2008_web.pdf	Place-based education begins with asking questions such as, "Where am I? What is the natural and social history of this place? How does this place fit into the larger world?" Project based learning tied to place emphasis, links to ecological, social and economic issues, 1.The	http://www.skolaprozivot.cz/mzu	SEVER - project Skola pro udržitelný život, Czech Republic(http://www.skolaprozivot.cz/mzu)	yes - Skola pro udržitelný život - "School for sustainable life
Planning for real	This method aims at developing knowledge about important subjects while promoting dialogue and involve young people in decision making processes.	pollution and waste management the students need to find answers that are sustainable and acceptable both by the community and the environment. By means of debate and democratic decision making students learn to confront themselves with others and find paths that are good for all the stakeholders involved. Students are	Young people and citizens become interested and involved in the decision making process.	To effectively involve young citizens in the long term it is important that the decision making process be followed by a real answer on behalf of the decision makers.	http://www.pracatina.it/ http://www.communitypanning.net/methods/planning_for_real.php	http://www.pracatina.it/ PRACATINAT s.c.p.a.	Yes - Pracatina
Project method (similar names/approaches: project based learning)	Project-based learning emphasizes learning activities that are long-term, interdisciplinary and student-centered. Unlike traditional, teacher-led classroom activities, students often must organize their own work and manage their own time in a project-based class. Project-based instruction differs from	Comprehensive Project-based Learning: - is organized around an open-ended driving question or challenge. - creates a need to know essential content and skills. - requires inquiry to learn and/or create something new. - requires critical thinking, problem solving, collaboration, and various forms of communication, often known as	Comprehensive Project-based Learning: - develops critical thinking, problem solving, collaboration, and various forms of communication - develops students' awareness, appreciation, skills, and commitment to address environmental issues.	Project-based learning develops students' awareness, appreciation, skills, and commitment to address environmental issues.	Markham, T. (2011). Project Based Learning. Teacher Librarian, 39(2), https://www.plt.org		yes - Tree project HU
Project wild	Project WILD is a wildlife-focused conservation education program which is based on the premise that young people and educators have a vital interest in learning about our natural world.	Activities are based on learning model of 3 stages : experience - reflection- concept It is an international network of students, educators, parents, community leaders, educational administrators, resource agencies, and conservation groups. Ideal for integration into the teaching of science, social studies, language arts, math, art, physical education, health, music, and other curriculum areas.			http://www.projectwild.org/		No
School Farming	School Farming means to experience for one or more days on a farm what means agriculture, how is life on a farm, where does our food come from etc.	1. First, it is a stay – from one day to a week on a real farm producing real food. 2. Some basic principles used are Place-based Learning and Hands-on-activities which can be reflected and deepened indoors/in a school. 3. On the School farms different methods from outdoor/adventure education are used.	What children can experience emotionally they become interested in: Experiencing responsibility, the joy of being outside, cooperating in the group, being with animals and achieving a task raises their self-confidence and well-being. The environmentally-conscious behaviour is connected with fun and happiness: this is an important base for sustainable behaviour.		http://www.lernenaufdembauernhof.de , http://www.farmbasededucation.org , http://www.baglob.de	In Germany: Schulbauernhof Hutzelberg www.schulbauernhof-hutzelberg.de	Yes – „School Farming“.
Summer camp	5-10-day summer camp, environmentally friendly, even nomadic, preferably in a nice natural environment.	It is a well-known that we care for something, if we are emotionally connected to it, if we like it. One can love something, if knows it well. Summer camps for children are perfect places to experience and live through this process. Children live outdoors, with nature, as a part of it. It is very important that the camp should be well organised: nice camp site that touches the children and raises respect towards nature by its sheer appearance.	First-hand experience based. Immersion into nomadic way of living. Creates emotional links to nature and environment. Promotes self reliance, team and community building.	In a nomadic camp children can experience environmentally aware way of living which they can accept, take home and integrate into their every day life. Emotional link to nature created as a basis for behaviour change. It is also an important venue for socialization.	Legány András: Környezeti nevelés a táborban http://www.okotaj.hu/szamok/03/korny5.html ; Bundai Zs. – Filó A. -Malatinszky Á.	Pangea Association, www.pangea.hu	Yes - Hedgehog Camp HU
Summer camp in the park	This method gives children of different ages the opportunity to live in a park for a week. They usually spend the day in the park and go home at night, but once or twice a week they can sleep in a tent.	The range of activities children follow during their stay at the camp are aimed at promoting respect and care for the park environment and stimulating a sense of cooperation among participants.	The program allows to develop responsibility and cooperation. Kids will develop a sense of responsibility and the ability to plan and to realise their ideas. Kids will be able to recognise their relationship to nature. Having nature experiences of different kinds will encourage them to reflect on their relationship with nature.	Curiosity towards the natural environment, also beyond the planned activities, should be encouraged (i.e. feel free to change the activity if something unexpected and potentially significant in a educational way happens). Attention to the environment and explanation for proposed behaviors should always be granted (i.e. why do we need to wash our hands in a basin?).		http://www.creda.it/idee-per-lestate-2014/ CREDA Onlus	Yes - Summer camp in the park
Wilderness Awareness – Art of Mentoring	Wilderness Awareness is a concept aiming at connecting students with nature, themselves and others. They learn outside about basic principles of life, awareness, they acquire skills and knowledge about nature and learn to be a part of a community.	1. Core Routines are Sit Spots, the Story of the Day, questioning and tracking, wandering, mapping, expanding the senses, exploring field guides, journaling, thanksgiving etc. 2. A mentor (the facilitator) is the one who guides the attention and curiosity of the learners through questions, not answers. 3. The approach uses the natural cycle of Learning, the Flow Learning, in any activity, lesson, course or walk in the woods.	The Wilderness Awareness is about waking up human curiosity and empower it into self-led actions – starting at where people are at. The practices or Core routines are used since thousands of years by humans. If the students make relationships and connections with real animals, real plants, real clouds, real mountains, real people – assuming that connecting with nature is a natural thing for humans to do – the outcomes and qualities will emerge within the nature of the students themselves.		- Young, John et. al. (2010) Coyotes Guide to Connecting with Nature. - http://www.wildernessawareness.org	In Germany: Wildnisschule Wildnisswissen www.wildnisswissen.de , Wildwechsel Naturschule www.wildwechsel-naturschule.de	Yes – „Classroom Nature“ based on the Wilderness Awareness approach.

