



EarthTalk in the Classroom

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Program Overview

Objective

Launch EarthTalk in the Classroom, a middle school curriculum aid designed to promote environmental literacy for middle school students.

Pitch

EarthTalk in the Classroom aims to foster environmental literacy and support middle school science curriculum. Through these modules students will make observations and ask questions about local environmental issues, collaboratively research their topic using carefully evaluated resources, and then create an answer to their question and discuss solutions.

The non-profit EarthTalk Q&A project launched in 2004 as a way to leverage the power of syndicated media to promote environmental literacy, green living and climate mitigation. Professional journalists research and answer real reader questions on a wide range of environmental topics, citing experts and peer-reviewed research in the process of producing a concise and easy-to-understand explanation of the issues at hand and what readers can do to help. The resulting “answers” are then distributed for free re-use/re-publication to a network of 1,200+ other media outlets, reaching some 30 million readers collectively every week.

EarthTalk in the Classroom brings the process of researching and answering environmental questions to students, building collective understanding of complex environmental issues in their own communities. Students work together to make observations, develop critical questions, research, and then share their work with others, promoting environmental literacy and awareness.

These modules can be used in and out of a traditional classroom and are easily adaptable for remote learning and Individual Learning Plans.

Performance expectation

Students will be able to identify and discuss environmental issues within local, regional, or global communities, supported through observation, evidence, and reasoning.

Learning outcomes

Making observations, asking questions, student-generated research, collaborative writing, awareness of local/regional community issues.

Learning targets

Student-generated Research

- Students will be able to make observations about their environment, both built and natural.
- Students will be able to ask questions that clarify observations or evidence.
- Students will be able to find resources to find answers to their research questions.
- Students will be able to compare and critique multiple arguments, and analyze or interpret facts presented to evaluate claims.
- Students will be able to explain what makes a good resource, evaluating sources for clarity, relevance, and bias.

Communicating and Distributing Results

- Students will be able to write an informative short essay relevant to their research question, using the EarthTalk Q&A format.
- Students will be able to cite specific textual evidence to support analysis of sources.
- Students will be able to adhere to fairness in reporting and journalistic objectivity standards.

Environmental Justice

- Students will be able to make connections between phenomena observed and the impact of human actions, infrastructure, and institutions.
- Students will be able to identify how local systems (ecosystems, communities, and economies) are affected by observed phenomena, and explain various stakeholder perspectives.
- Students will be able to explain how communities, organizations, and governments can affect positive change within their community.

Implementing EarthTalk in the Classroom

The EarthTalk in the Classroom modules break down the EarthTalk Q&A process into smaller components, which can be used in sequence or individually to support existing science curricula and to fit the needs of students. These eight modules focus on different steps of the EarthTalk Q&A process, from observations and question formation, to research, to structuring and writing a short, informative essay.

Contrary to the name, EarthTalk in the Classroom can be used to facilitate student learning anywhere and anytime. As independent components, the EarthTalk in the Classroom modules can be used by

teachers, parents, and students to support student learning, as needed. These modules are meant to be highly adaptable to meet the needs of educators and students.

Washington State Learning Standards

EarthTalk in the Classroom supports middle school learning performance expectations, as identified by the Next Generation Science Standards (NGSS); the English Language Arts Standards of the Common Core State Standards (CCSS); and Washington State’s Environment and Sustainability Learning Standards (ESE). Each of the three sets of modules employ specific practices, skills, or learning outcomes outlined by the NGSS, CCSS, and ESE.

[Next Generation Science Standards \(NGSS\)](#)

EarthTalk in the Classroom (ETC) supports the three dimensions of the Next Generation Science Standards. The related Disciplinary Core Ideas, Cross-cutting Concepts, and Science and Engineering Practices are listed at the beginning of each set of ETC modules. These three dimensions are listed in the table below.

The ETC process encourages students to pursue environmental topics with local significance or of particular interest to them. Therefore, the Disciplinary Core Ideas they encounter may vary depending on the topic. Students will most likely encounter Disciplinary Core ideas found within the Life Sciences (MS-LS) or Earth and Spaces Sciences (MS-ESS) Units, as outlined by the NGSS such as “Earth and Human Activity” and “Ecosystems.”

Similarly, the Cross-cutting Concepts students may encounter will vary based on students’ topics as well as the direction of their research. Teachers may encourage students to view their topic through the lens of a particular concept, related to previously explored concepts in class.

Throughout the course of the ETC modules, students will utilize skills listed within the Science and Engineering Practices of the NGSS. In Part One of EarthTalk in the Classroom, students make observations, ask questions, and define problems. As students conduct research and design their answer in Part Two and Three, they construct explanations; engage in arguments from evidence; and obtain, evaluate, and communicate information.

For more information on the Next Generation Science Standards visit the National Science Teaching Association website at <https://ngss.nsta.org/>.

3 Dimensions of Next Generation Science Standards

Disciplinary Core Ideas	Science and Engineering Practices	Cross-cutting Concepts
Life Sciences (MS-LS)	Asking questions and defining problem	Patterns

	Using math and computational thinking	Cause/effect
Earth and Space Sciences (MS-ESS)	Planning and carrying out investigations	Systems
	Engaging in arguments from evidence	Stability and change
Physical Sciences (MS-PS)	Developing and using models	Energy and matter
	Constructing explanations and designing solutions	Structure and function
	Analyzing and interpreting data	Scale, proportion, quantity
	Obtaining, evaluating, and communicating information	

[Environmental and Sustainability Education Standards \(ESE\)](#)

EarthTalk in the Classroom supports the Environmental and Sustainability Education Standards (ESE), as outlined by the Washington State Office of the Superintendent of Public Instruction (OSPI). Through students' independent research, they will encounter aspects of each of the three ESE Standards, as listed below.

ESE Standard 1: Ecological, Social, and Economic Systems. Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels.

ESE Standard 2: The Natural and Built Environment. Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments.

ESE Standard 3: Sustainability and Civic Responsibility. Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.

For more information on the ESE please visit the OSPI website at <https://www.k12.wa.us/student-success/resources-subject-area/environment-sustainability>

Common Core State Standards (CCSS)

EarthTalk in the Classroom supports the English Language Arts & Literacy writing standards, as outlined by the Common Core State Standards. While ETC meets many of the criteria of all ten Middle School Writing guidelines (listed below), these modules fulfil five guidelines in particular, which are listed below.

CCSS.ELA-LITERACY.WHST.6-8.1. A-E

Write arguments focused on discipline-specific content.

- A. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
- B. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
- C. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence
- D. Establish and maintain a formal style.
- E. Provide a concluding statement or section that follows from and supports the argument presented.

CCSS.ELA-LITERACY.WHST.6-8.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CCSS.ELA-LITERACY.WHST.6-8.7

Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

CCSS.ELA-LITERACY.WHST.6-8.8

Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CCSS.ELA-LITERACY.WHST.6-8.9

Draw evidence from informational texts to support analysis, reflection, and research.

For more information on the English Language Arts & Literacy writing standards for grades 6-8, please visit the Common Core State Standards Initiative website at <http://www.corestandards.org/ELA-Literacy/WHST/6-8/>