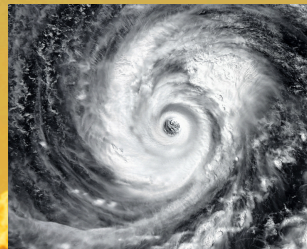


NGSS MS-ESS3

Earth and Human Activity

Full Standard BUNDLE

- ✓ Everything You Need to Teach NGSS MS-ESS3
- ✓ Lessons, Activities, Labs, Projects, and more
- ✓ MS-ESS3-1, MS-ESS3-2, MS-ESS3-3, MS-ESS3-4, MS-ESS3-5



Bundles Included

NGSS MS-ESS3-1

Curriculum Bundle

Earth's Uneven Natural Resources

- ✓ 5 Lessons and 10 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS3-1



NGSS MS-ESS3-2

Curriculum Bundle

Forecasting Natural Hazards

- ✓ 1 Lesson and 8 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS3-2



NGSS MS-ESS3-4

Curriculum Bundle

Environmental Impacts of Human Population & Resource Use

- ✓ 3 Lessons, 3 Projects, and 8 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS3-3



NGSS MS-ESS3-3

Curriculum Bundle

Human Impact on the Environment

- ✓ 1 Lesson and 9 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS3-3



NGSS MS-ESS3-5

Curriculum Bundle

Climate Change & Global Warming Evidence

- ✓ 2 Lessons, 1 Project, and 9 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS3-5



Everything You Need to Completely Cover NGSS MS-ESS3

Complete Lessons

Activities

Labs

Projects

Climate Change and Global Warming Lesson
6th, 7th, 8th Grade

- Complete Two-Day Lesson
- Interactive & Inquiry-Based
- Google & Distance Learning Ready
- Auto-Graded Exit Ticket & Quiz

Earth's Natural Resources Lesson
Minerals, Energy, and Groundwater
6th, 7th, 8th Grade

- Covers: Minerals, energy sources, and groundwater
- For Each, the Lesson Teaches: Formation, location, extraction, and human impact of natural resources.
- Ideal for Middle School Science
- No-Prep Resource

Case Study: The Effects of Plastic Pollution on Marine Ecosystems

Earthquakes, Volcanoes, and Tsunamis

- Earthquakes
- Tectonic Plates, Boundaries, and Seismic Waves
- The Great Chilean Earthquake
- Volcanoes
- Types of Volcanoes
- Volcano Dangers
- Mount Tambora
- Tsunamis
- Social and Environment Impact of Tsunamis

This digital presentation includes both Google and Office resources and is Google Classroom Ready

Earthquakes and Volcanoes Lab Station Activity

7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Climate Change Lab Station Activity

7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Climate Change Project
6th, 7th, 8th Grade

- Engaging Research Project
- Guided Research Process
- Develop Critical Thinking & Collaboration

Human Impact on Ecosystems Assignment

Ecology Inquiry-Based Project

- Inquiry-Based Ecosystem Project
- Customizable & Device-Friendly
- Includes Rubric & Topic Choices
- Ideal for Grades 5-9

Build Your Own Aquifer
6th, 7th, 8th Grade Project

- Hands-on Learning
- Real-World Connections
- Critical Thinking
- Engaging and Memorable

The Standard is Explained and the Resources it Incorporates are Outlined

MS ESS3 Earth and Human Activity

Note: There may be resources that overlap between the standards. Simply choose the order that best fits your classroom. Also, there are more resources here than you will most likely decide to use. I have provided extra so you can make the best decision for your students on what is best to include.

MS-ESS3-1. Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes. [Clarification Statement: Emphasis is on how these resources are limited and typically non-renewable, and how their distributions are significantly changing as a result of removal by humans. Examples of uneven distributions of resources as a result of past processes include but are not limited to petroleum (locations of the burial of organic marine sediments and subsequent geologic traps), metal ores (locations of past volcanic and hydrothermal activity associated with subduction zones), and soil (locations of active weathering and/or deposition of rock).]

Resources:

- Biomass and Fossil Fuels Lesson
- Biomass and Fossil Fuels Digital INB Pages
- Crash Course Worksheet - Can We Make Electricity with Fossil Fuels?
- Crash Course Worksheet - Can We Keep Warm and Stay Cool with Fossil Fuels?
- Case Study - The Devastating Impact of Industrial Pollution
- Fossil Fuel and Nuclear Energy Production - Scavenger Hunt
- Fossil Fuels Reading
- Nonrenewable Energy Sources Lab Station Activity
- Tectonic Plates Lesson
- Weathering, Erosion, and Deposition Lesson
- The Water Table Lesson
- Volcanoes Reading
- Earth's Natural Resources - Mineral, Energy, and Groundwater - Lesson
- Crash Course Worksheet - Mineral Extraction
- Build Your Own Aquifer Project

MS-ESS3-2. Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

[Clarification Statement: Emphasis is on how some natural hazards, such as volcanic eruptions and severe weather, are preceded by phenomena that allow for reliable predictions, but others, such as earthquakes, occur suddenly and with no notice, and thus are not yet predictable. Examples of natural hazards can be taken from interior processes (such as earthquakes and volcanic eruptions), surface processes (such as mass wasting and tsunamis), or severe weather events (such as hurricanes, tornadoes, and floods). Examples of data can include the locations, magnitudes, and frequencies of the natural hazards. Examples of technologies can be global (such as satellite systems to monitor hurricanes or forest fires) or local (such as building basements in tornado-prone regions or reservoirs to mitigate droughts).]

Resources:

- Earthquakes, Volcanoes and Tsunamis Lesson
- Earthquakes and Volcanoes - Scavenger Hunt
- Earthquakes and Volcanoes Lab Station Activity
- Earthquakes Reading
- Hurricanes Reading
- Volcanoes Reading
- Straw Tower STEM Engineering Challenge
- Paper Bridge STEM Challenge
- Pasta Tower STEM Challenge

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment. * [Clarification Statement: Examples of the design process include examining human environmental impacts, assessing the kinds of solutions that are feasible, and designing and evaluating solutions that could reduce that impact. Examples of human impacts can include water usage (such as the withdrawal of water from streams and aquifers or the construction of dams and levees), land usage (such as urban development, agriculture, or the removal of wetlands), and pollution (such as of the air, water, or land).]

Resources:

- Reducing Human Impact on the Environment Lesson
- Save the Drops – Designing a Water Conservation Plan Project
- Build Your Own Aquifer Project
- Crash Course Video Worksheet Human Impacts on the Environment
- Human Impact on Ecosystems Assignment
- Human Impact on Ecosystems Inquiry Lab Experiment Ecobottles
- Pollution Control Devices Reading
- Case Study The Impact of Industrial Pollution on Local Water Source
- Urban Sprawl Reading
- Crash Course Video Worksheet How Are Cities Organized

MS ESS3-4: Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems

Examples of evidence include grade-appropriate databases on human populations and the rates of consumption of food and natural resources (such as freshwater, mineral, and energy). Examples of impacts can include changes to the appearance, composition, and structure of Earth's systems as well as the rates at which they change. The consequences of increases in human populations and consumption of natural resources are described by science, but science does not make the decisions for the actions society takes

Resources:

- Understanding Biodiversity – Lesson
- Biodiversity and Climate Change – Lesson
- Earth's Natural Resources - Mineral Energy and Groundwater - Lesson
- Biodiversity – Reading
- Earth's Natural Resources - Reading
- Build Your Own Aquifer – Project
- Invasive Species – Project
- Human Impact on Ecosystems - Assignment
- Crash Course Video Worksheet - The Effects of Climate Change
- Crash Course Video Worksheet - Human Population Growth
- Crash Course Video Worksheet - Mineral Extraction
- Case Study - Plastic Pollution and Marine Ecosystems
- Case Study - Causes and Consequences of Deforestation in the Amazon Rainforest
- Case Study - Investigating the Impact of Climate Change on Coral Reefs

MS-ESS3-5. Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century. [Clarification Statement: Examples of factors include human activities (such as fossil fuel combustion, cement production, and agricultural activity) and natural processes (such as changes in incoming solar radiation or volcanic activity). Examples of evidence can include tables, graphs, and maps of global and regional temperatures, atmospheric levels of gases such as carbon dioxide and methane, and the rates of human activities. Emphasis is on the major role that human activities play in causing the rise in global temperatures.]

Resources:

- Climate Change Lesson
- Climate Change Reading
- Biomass and Fossil Fuels Lesson
- Crash Course Video Worksheet: What Is Climate Change
- Crash Course Video Worksheet Keep Warm & Stay Cool Without Fossil Fuels
- Climate Change Project
- Climate Change Crossword Puzzle Activity
- Climate Change Word Search and Scramble Activity
- Climate Change Lab Station Activity
- Climate Change - Digital Interactive Notebook Bundle
- Case Study - Polar Bear and Climate Change
- Case Study - African Elephant and Climate Change

Who is this Bundle for?

- **Teachers who teach Middle School Science and use the NGSS**
- **Teachers who want multiple resources at their fingertips including lessons and a variety of activities, in order to meet the standard**
- **Teachers who don't have time to develop their own resources or organize what to teach and when**