

Earth & Space Science Scope and Sequence

NGSS Aligned



Welcome!

My name is Lisa Reichley. I am the CrazyScienceLady.



I opened my TpT store back in April of 2013 with the intent of making enough money to purchase my daughter an American Girl doll for Christmas. I am happy to report that I was successful.

Never in my wildest dreams could I have imagined it becoming this large a part of my life. Fast forward to today.

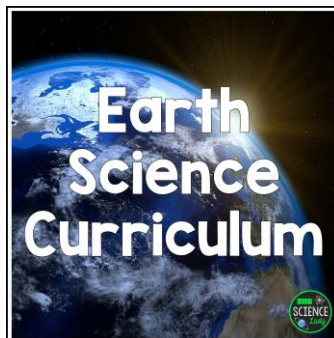
In this document you will find the Timing, NGSS, Topics/ Keywords, Lab/ Activities, and Materials (that you would not ordinarily have on hand) for my Earth Science Curriculum.

Is it perfect? No.

Is it done? Nope. It will never be done. It is always a work in progress. **When you purchase my Earth Science Curriculum, you will get ALL future updates/ additions for FREE!**

This is the curriculum I use. I am still in the classroom. It covers a complete YEAR of teaching Earth Science. This curriculum is SPOT ON for 7th grade. I have used this for 6th grade as well. And yes, I do believe it is appropriate for 8th.

Side Note ALL the labs/ activities found in my "Earth Science Lab and Activity Bundle" are **INLCUDED** within this curriculum. Instead of being a singular pdf, they are within their corresponding units. To purchase the curriculum or check out just the labs and activities, click on one of the images below.



Need to contact me?

My email is Lisa@crazysciencelady.net

Thanks for checking it out! Have a stellar school year. Pun intended.

Lisa Reichley

Unit 1: Scientific Method				
Timing	NGSS	Key Words/ Topics	Labs/Activities	Materials Needed
8–12 days	MS–ETS1–1 Engineering Design MS–ETS1–2 Engineering Design MS–ETS1–3 Engineering Design MS–ETS1–4 Engineering Design	Hypothesis, Qualitative data, Quantitative data, Conclusion,	<ul style="list-style-type: none"> • Drops on a Penny • Where the Green Grass Grows • Gummy Bear Lab • Bubble Lab 	Pennies, dropper, potting soil, grass seed, dish soap, sugar, salt, straws, gummy bears, vinegar

Unit 2: Matter (Note: This is a physical science bundle (NGSS); however, I have included it in this curriculum because some choose to use this as an introduction to minerals. It is NOT part of the NGSS for Earth/Space Science. Including it gives you options. This unit is also included in my Physical Science Curriculum.)

Timing	NGSS	Key Words/ Topics	Labs/Activities	Materials Needed
14–16 days	MS–PS1–2 Matter and its Interactions	Atomic structure, element, compound, mixtures (homogenous vs heterogeneous) matter, protons, neutrons, electrons, ion, isotope, chemical vs physical change, density, properties of matter	<ul style="list-style-type: none"> • Calculating number of subatomic particles • Density Lab • Separating a Mixture 	Iron filings, sand, salt, sulfur, ring stand set-up, Bunsen burners, funnels, coffee filters, magnets

Unit 3: Minerals

Timing	NGSS	Key Words/ Topics	Labs/Activities	Materials Needed
14–16 days	MS–ESS2–2 Earth's Systems MS–ESS3–1 Earth and Human Activity MS–ESS3–4 Earth and Human Activity	Minerals, crystals, crystal shapes, properties of minerals, uses of minerals	<ul style="list-style-type: none"> • Build the crystal shapes • Mineral Identification Lab 	20 well known/ common minerals, streak plates, glass plates, nails, pennies, magnets,

Unit 4: Plate Tectonics				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
16-18 days	MS-ESS2-1 Earth's Systems MS-ESS2-3 Earth's Systems	Continental drift, seafloor spreading, Pangea, Layers of the Earth, Convection Currents, Types of plates boundaries, Tectonic plates, Reading tectonic maps	<ul style="list-style-type: none"> Pangea Puzzle 	

Unit 5: Earthquakes				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
16-18 days	MS-ESS2-2 Earth's Systems MS-ESS3-2 Earth and Human Activity	Types of faults/ forces, Elastic limit, Tsunamis/ warning systems, liquefaction, types of seismic waves, triangulation, epicenter, focus	<ul style="list-style-type: none"> Types of faults Activity Finding the Epicenter 	Play doh, plastic knives, slinky

Unit 6: Volcanoes				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
16-18 days	MS-ESS2-1 Earth's Systems MS-ESS2-2 Earth's Systems MS-ESS3-2 Earth and Human Activity	Intrusive igneous formations, types of volcanoes and where/why they occur, types of magma/ how it forms, types of eruptions	<ul style="list-style-type: none"> Building the Volcanoes Coloring Intrusive Igneous Formations 	

Unit 7: The Rock Cycle				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
12-15 days	MS-ESS2-1 Earth's Systems	Types of Rock, Rock cycle processes	<ul style="list-style-type: none"> Rock Cycle Starburst Lab Rock ID for each rock type 	4-8 of each rock type, Starburst candies, plastic sandwich bags

Unit 8: Sun, Earth, Moon System				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
13-16 days	MS-ESS1-1 Earth's Place in the Universe	Rotation, Revolution, Moon phases, sidereal vs solar day, seasons	<ul style="list-style-type: none"> • What causes the seasons? • Moon phase diagramming 	Flashlights
Unit 9: Our Solar System				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
16-18 days	MS-ESS1-2 Earth's Place in the Universe MS-ESS1-3 Earth's Place in the Universe	Various characteristics of inner vs outer planets, along with an overview of each planet in our solar system, a look at scale	<ul style="list-style-type: none"> • Building a Scale Model of the Solar System (whole class project) 	Big paper
Unit 10: Weather				
Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
16-18 days	MS-ESS2-4 Earth's Systems MS-ESS2-5 Earth's Systems MS-ESS2-6 Earth's Systems	Weather instruments, systems, fronts, water cycle	<ul style="list-style-type: none"> • Build the layers of the atmosphere • Weather Forecasting 	

Unit 11: Water, Erosion, and Deposition

Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
16-18 days	MS-ESS3-3 Earth and Human Activity MS-ESS2-2 Earth's Systems	Aquifer, water table, Artesian well, other various groundwater formations, tides, neap vs spring tides, longshore current, waves	<ul style="list-style-type: none"> • Groundwater diagramming • Water table lab • Graphing the tides 	

Unit 12: Stratigraphy: *Note* I use the workbook for this unit AS THE ASSESSMENT. Because it falls at the end of the year and is rather dry and very short, I have the students follow along, participate, and then I grade their workbooks as the final assessment for this unit.

Timing	NGSS	Key Words/ Topics	Labs/ Activities	Materials Needed
4-8 days	MS-ESS1-4 Earth's Place in the Universe	Index fossil, various laws of stratigraphy	<ul style="list-style-type: none"> • Coloring 	