



Science – Eighth Grade 2026-27

First Quarter

SCIENCE

Week 1, Aug 3-7 (4-day week)

8.PS2.1 Conduct an investigation to provide evidence that the size of force fields (electric and magnetic) depends on the magnitudes of the charges, current, or magnetic strengths involved and the distances between interacting objects.

EQ: How do distance and magnitude affect the size and strength of the magnetic field?

Week 2, Aug 10-14

8.PS2.2 Ask scientific questions about data to determine how manipulating variables can increase or diminish the electric current and magnetic field strength in electromagnets, generators, and electric motors.

Essential Question: How do we interpret data about the variables that increase or decrease electric current and magnetic fields?

8.ETS1.1 Use a model of a device that incorporates an electromagnet to test solutions to a design problem with specific criteria and constraints.

Essential Question: How do you use an electromagnet to solve a design problem with constraints?

Assessment: Electricity and Magnetism 2023 (Canvas)

Week 3, Aug 17-21

8.PS2.3 Construct an argument using evidence to support the claim that gravitational interactions in a large-scale system (e.g., galaxies and solar system) are attractive and depend on the masses of and distance between interacting objects.

Essential Question: How do mass and distance affect gravity between objects in large-scale systems?

Week 4, Aug 24-28

8.PS2.4 Construct an explanation to describe why the position and motion of object(s) in a system, and the effects of forces on those objects, vary with respect to the observer.

Essential Question:

How does the observer's location change how they describe the position, motion, and effect of forces on objects?

Week 5, Aug 31-Sept 4

8.PS2.5 Plan and conduct an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

Essential Question: How do we gather evidence to show that changes in motion depend on the sum of the forces and the object's mass?

Week 6, Sept 7-11 (4-day week)

8.PS2.5 Continued

8.PS2.6 Evaluate and interpret that for every force exerted on an object there is an equal force exerted in the opposite direction.

Essential Question: How do you model the impact of action-reaction forces on an object's motion?

Week 7, Sept 14-18

8.PS2.6 Continued

Assessment: Forces and Motion 2023 (Canvas)

Week 8, Sept 21-25

District Science Checkpoint Assessment 1

(all Qtr 1 standards)

Week 9, Sept 28-Oct 2

Re-testing in Groups

Data Conferences

Begin teaching the next standard



Science – Eighth Grade 2026-27

Second Quarter

SCIENCE

Week 1, Oct 12-16

8.PS4.1 Develop and use models to represent the basic properties of waves, including frequency, amplitude, wavelength, and speed.

Essential Question: How can models help demonstrate the basic properties of mechanical waves?

Week 2, Oct 19-23

8.PS4.2 Construct explanations from observed patterns of wave behaviors to compare and contrast mechanical waves and electromagnetic waves based on refraction, reflection, transmission, absorption, and their behavior through a vacuum and/or various media.

Essential Question: How does wave behavior change as waves travel through different materials?

Week 3, Oct 26-30

8.PS4.3 Engage in argument from evidence to support the claim that digitized signals, sent as wave pulses, are more reliable than analog signals to transmit information in a system.

Essential Question: What role do waves play in different communication systems?

Assessment: Waves Test 2023 (Illuminate)

Week 4, Nov 2-6 (4-day week)

8.PS1.1 Use a model to understand that atoms are a system composed of a positively charged nucleus surrounded by one or more negatively charged particles called electrons.

Essential Question: How can a model be used to understand the composition of atoms?

Week 5, Nov 9-13

8.PS1.2 Develop a model to explain how the light coming from distant stars and the formation of heavier atoms is the result of changes in the composition of the nucleus of the atom and the energy released during the process of nuclear fusion.

Essential Question: How do changes in the composition of the nucleus and the energy released during nuclear fusion affect stars?

Week 6, Nov 16-20

8.ESS1.1 Research, analyze, and communicate that the universe began with a period of rapid expansion using evidence from the motion of galaxies (i.e., redshift and blueshift), elemental concentrations of hydrogen and helium, and cosmic background radiation.

Essential Question: How does evidence support the claim that the universe began with a period of rapid expansion?

Week 7, Nov 23-24 (2-day week)

8.ESS1.1 Continued

Week 8, Nov 30-Dec 4

8.ETS2.1 Research and communicate information to describe how data from technologies (e.g., telescopes, satellites, space probes, seismographs) provide information about Earth and objects in space and how those scientific discoveries have in turn led to improved technologies.

Essential Question: How do scientists use space technology to gather information about the solar system and the universe?

Assessment: Space 2025 (Canvas)

Week 9, Dec 7-11

8.ESS2.2 Evaluate data collected from seismographs to create a model of Earth's structure and to understand how energy is derived from Earth's hot interior.

Essential Question: How have seismic waves been used to develop a model of the earth?

(How have seismic waves been used to understand Earth's interior?)

Week 10, Dec 14-18 (4.5-day week)

District Science Checkpoint Assessment 2

(all Qtr 2 standards)

Re-testing in Groups/Data Conferences



Science – Eighth Grade 2026-27

Third Quarter

SCIENCE

Week 1, Jan 6-8 (3-day week)

8.ESS2.3 Gather and evaluate evidence that energy from the earth's interior drives convection cycles within the asthenosphere which creates changes within the lithosphere including plate movements, plate boundaries, and sea-floor spreading.

Essential Question: How do convection currents in the asthenosphere cause changes in the lithosphere?

Week 2, Jan 11-15

8.ESS2.4 Continued

Week 3, Jan 18-22 (4-day week)

8.ESS2.4 Construct a scientific explanation using data that explains the gradual process of plate tectonics accounting for (a) the distribution of fossils on different continents, and (b) continental and ocean floor features (i.e., mountains, volcanoes, faults, and trenches).

Essential Question: How can plate tectonics help explain the distribution of fossils and continental and ocean features?

Unit Assessment (8.ESS2.2-4 - next year include 8.ESS3.1)

Week 4, Jan 25-29

8.ESS2.3 Continued

Week 5, Feb 1-5

8.ESS3.1 Collect data, map, and describe patterns in the locations of volcanoes and earthquakes related to tectonic plate boundaries, interactions, and hotspots in order to forecast the locations and likelihoods of future events.

Essential Question: What geological patterns related to tectonic plates can geologists use to predict future events?

Week 6, Feb 8-12 (4-day week)

8.ESS3.1 Continued

Week 7, Feb 15-19 (4-day week)

8.LS4.1 Using evidence from the geologic timescale, analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change in life forms throughout Earth's history.

Essential Question: What information about life forms can be obtained using the fossil record?

Week 8, Feb 22-26 (4-day week)

8.ESS2.1 Analyze and interpret data to support the assertion that rapid or gradual geographic changes lead to drastic population changes and extinction events.

Essential Question: How can evidence from Earth's history show that changes in Earth's systems cause populations to increase, decrease, or go extinct?

Week 9, Mar 1-5

8.ESS2.1 Continued

(Assessment: 8.LS4.1 & 8.ESS2.1)

Week 10, Mar 8-12

**District Science Checkpoint Assessment 3
(all Qtr 3 standards)**

Re-testing in Groups

Data Conferences



Science – Eighth Grade 2026-27

Fourth Quarter

SCIENCE

Week 1, Mar 22-26 (4-day week)

8.LS4.2 Construct an explanation addressing similarities and differences of the anatomical structures and genetic information between extinct and extant organisms using evidence of common ancestry and patterns between taxa.

Essential Question: What evidence can be used to compare the anatomical structures and genetics of extinct and extant species?

Week 2, Mar 29-Apr 2 (4-day week)

8.LS4.3 Construct an explanation based on evidence that explains how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing.

Essential Question: How do genetic variations within a population increase some individuals' probability of survival?

Week 3, Apr 5-9

8.LS4.4 Develop a scientific explanation of how natural selection plays a role in determining the survival and reproduction of a species in a changing environment.

Essential Question: How does natural selection play a role in determining the survival of a species in a changing environment?

Week 4, Apr 12-16

8.LS4.5 Obtain, evaluate, and communicate information about the technologies that have changed the way humans use artificial selection to influence the inheritance of desired traits in other organisms.

Essential Question: How do humans use artificial selection to influence the inheritance of desired traits in organisms?

Unit Assessment (8.LS4.1-5, 8.ESS2.1)

Week 5, Apr 19-23

Earth Day April 22

STEM PBL/Project/Enrichment

Week 6, Apr 26-30

STEM PBL/Project/Enrichment

Week 7, May 3-7

STEM PBL/Project/Enrichment

Week 8, May 10-14

STEM PBL/Project/Enrichment

Week 9, May 17-21

STEM PBL/Project/Enrichment

Week 10, May 24-27 (3.5-day week)

STEM PBL/Project/Enrichment