



Scope & Sequence
Level H

Level H (Grade 8)

Lesson	Category	Topic/Focus	Objective
1	Life Science	Life Cycles	To conduct a controlled experiment
2	Life Science	Plant Preservation	To explore how plants are preserved for future study
3	Life Science	Classification	To explore grouping by characteristics
4	Life Science	Genetics	To examine a sample of DNA
5	Life Science	Mitosis	To explore how chromosomes stay constant when cells divide
6	Life Science	Meiosis	To explore how cell division creates gametes, determining gender
7	Life Science	Fertilization	To explore how fertilization restores the right # of chromosomes
8	Life Science	Biological Uniqueness	To explore human differences by observing fingerprints
9	Life Science	Genetics	To explore how gene combinations create unique individuals
10	Physical Science (Forces)	Scientific Models	To explore changes in our understanding of the atom
11	Physical Science (Forces)	Surface Tension	To explore how water molecules attract each other
12	Physical Science (Forces)	Energy Conversion	To explore converting kinetic energy to potential energy
13	Physical Science (Forces)	Forces and Energy	To explore the energy efficiency of a force
14	Physical Science (Forces)	Energy Conversion	To explore converting kinetic energy to potential energy
15	Physical Science (Forces)	Gravity	To explore an object's center of gravity
16	Physical Science (Forces)	Buoyancy	To explore how density affects buoyancy
17	Physical Science (Forces)	Transfer of Forces	To explore how structure can transfer forces
18	Physical Science (Forces)	Inertia	To explore how design affects force
19	Earth Science	Air Pressure I	To explore the balance of forces
20	Earth Science	Air Pressure II	To explore how heat affects air pressure
21	Earth Science	Global Magnetism	To explore magnetic fields
22	Earth Science	Geosynchronous Orbit	To explore ways objects move in space
23	Earth Science	Topography	To explore topographic maps
24	Earth Science	Identifying rocks & minerals I	To explore testing methods for rocks and minerals
25	Earth Science	Identifying rocks & minerals II	To explore more testing methods for rocks and minerals
26	Earth Science	Natural Resources	To explore the challenges of recovering natural resources
27	Earth Science	Fossils	To explore how scientists map a "dig"
28	Physical Science (Energy/Matter)	Ultraviolet Light	To explore properties of ultraviolet light
29	Physical Science (Energy/Matter)	Refraction	To explore how refraction affects light
30	Physical Science (Energy/Matter)	Sound	To explore sound using homemade instruments
31	Physical Science (Energy/Matter)	Density	To explore how displacing matter creates buoyancy
32	Physical Science (Energy/Matter)	Electricity	To explore circuits and conductivity
33	Physical Science (Energy/Matter)	Laws of Matter	To explore two primary laws of matter
34	Physical Science (Energy/Matter)	Types of Energy	To explore how energy converts to motion
35	Physical Science (Energy/Matter)	Changes in Matter	To explore chemical and physical change
36	Physical Science (Energy/Matter)	Indicators	To explore how indicators work