

Fifth Grade Science

Here is a list of all of the Science Skills students learn in Fifth Grade.

A. Materials

1. Compare properties of objects

B. Matter and mass

1. Calculate density
2. Understand conservation of matter using graphs

C. Heat and thermal energy

1. Change-of-state diagrams: melting, freezing, vaporizing, and condensing
2. Change-of-state diagrams: melting, freezing, vaporizing, condensing, and sublimating
3. Heating, cooling, and changes of state
4. Predict heat flow
5. Predict temperature changes
6. How are temperature and mass related to thermal energy?

D. Physical and chemical change

1. Compare physical and chemical changes

E. Mixtures

1. Identify mixtures

F. Atoms and molecules

1. Interpret ball-and-stick models
2. Match chemical formulas to ball-and-stick models
3. Complete chemical formulas for ball-and-stick models
4. Count atoms in chemical formulas
5. Classify elementary substances and compounds using chemical formulas
6. Identify elementary substances and compounds using chemical formulas
7. Sort elementary substances and compounds using chemical formulas
8. Classify elementary substances and compounds using models

G. Force and motion

1. Identify directions of forces
2. How do balanced and unbalanced forces affect motion?
3. How does mass affect force and acceleration?

H. Magnets

1. Identify magnets that attract or repel
2. Label magnets that attract or repel
3. Compare magnitudes of magnetic forces

I. Classification

1. Identify mammals, birds, fish, reptiles, and amphibians
2. Identify vertebrates and invertebrates
3. Use evidence to classify mammals, birds, fish, reptiles, and amphibians
4. Use evidence to classify animals
5. Describe, classify, and compare kingdoms

J. Scientific names

1. Identify common and scientific names
2. Origins of scientific names
3. Use scientific names to classify organisms

K. Animals

1. Read and construct animal life cycle diagrams
2. Compare animal life cycles
3. Body systems: circulation and respiration
4. Body systems: digestion
5. Body systems: removing waste
6. Body systems: perception and motion

L.Plants

1. Classify fruits and vegetables as plant parts
2. Identify plant parts and their functions
3. How do plants make food?
4. Identify flower parts and their functions
5. Flowering plant and conifer life cycles
6. Moss and fern life cycles
7. Identify the photosynthetic organism

M.Adaptations

1. Animal adaptations: beaks, mouths, and necks
2. Animal adaptations: feet and limbs
3. Animal adaptations: skins and body coverings

N.Traits and heredity

1. Match offspring to parents using inherited traits
2. Identify inherited and acquired traits
3. Inherited and acquired traits: use evidence to support a statement
4. Read a plant pedigree chart
5. Read an animal pedigree chart

O. Cells

1. Identify functions of plant cell parts
2. Identify functions of animal cell parts
3. Animal and plant cell diagrams: identify parts
4. Plant cell diagrams: label parts
5. Animal cell diagrams: label parts
6. Compare cells and cell parts

P. Ecosystems

1. Identify ecosystems
2. Describe ecosystems
3. Identify roles in food chains
4. How does matter move in food chains?
5. Interpret food webs I
6. Interpret food webs II

Q. Conservation and natural resources

1. Science literacy: how can a community protect sea turtles?
2. Evaluate natural energy sources

R. Rocks and minerals

1. Identify rocks and minerals
2. How do sedimentary rocks form?
3. Classify rocks as igneous, sedimentary, or metamorphic
4. How do rock layers form?
5. Label parts of rock cycle diagrams
6. Select parts of rock cycle diagrams

S.Fossils

1. Introduction to fossils
2. Identify and classify fossils
3. Compare fossils to modern organisms
4. Compare ancient and modern organisms: use observations to support a hypothesis
5. Interpret evidence from fossils in rock layers

T.Weather and climate

1. Collect and graph temperature data
2. What's the difference between weather and climate?
3. Weather and climate around the world
4. Weather or climate? Cite text
5. Use climate data to make predictions
6. Use data to describe climates

U.Water cycle

1. Describe and graph water on Earth
2. Label parts of water cycle diagrams
3. Select parts of water cycle diagrams

V.Topographic maps

1. Read a topographic map
2. Select parts of a topographic map

W. Units and measurement

1. Choose customary units of distance
2. Choose metric units of distance
3. Choose customary units of mass
4. Choose metric units of mass
5. Choose customary units of volume
6. Choose metric units of volume
7. Abbreviate time, length, and speed units
8. Abbreviate mass, volume, and temperature units

X. Lab tools and equipment

1. Identify laboratory tools