

## **GRADE 1 SCIENCE**

In First Grade, children are introduced to the study of Science through observation and experiment. Children are encouraged to make predictions and question outcomes as a scientific process. Children receive instruction through audio, visual and hands-on techniques.

### **Life Science**

#### **Plants**

Students will:

- learn that living things grow and nonliving things do not grow
- learn that plants have leaves, stems and roots to help them grow
- learn about the parts of a plant
- learn that fruits and flowers have seeds that grow into new plants
- learn that plants grow and change
- learn that plants live in many places

#### **Animals**

Students will:

- learn about mammals, birds, reptiles, amphibians, fish and insects as groups of animals
- learn that animals need food, water, air and shelter to live
- learn that herbivores eat plants and carnivores eat meat
- learn about the life cycle of animals
- learn how animals adapt to their habitats
- learn about the food chain and how plants and animals are affected by change in their habitat

### **Earth Science**

#### **Earth**

Students will:

- learn that the earth is covered by continents and water
- learn that most of the earth is covered by either salty ocean or by fresh water located in rivers, streams and lakes
- learn that mountains are high land , valleys are low land and plains are flat land
- rocks have different shapes, sizes and colors because they are made of different minerals
- learn that water and plants can break rocks through the process of weathering and that erosion changes the shape of the land
- learn that natural resources are used by people in different ways

- learn that soil is a natural resource that can be used to grow plants and make objects from clay
- learn that people, plants and animals need clean water and air and that pollution and make people and other living things sick
- learn that natural resources can be conserved by reusing, reducing, and recycling materials

### **Weather**

Students will:

- learn that weather is all around us and that there are different tools to measure the weather conditions
- learn about the different seasons
- learn that the sky is above us and the sun provides heat and light
- learn that the earth rotates, spins and moves around the sun
- learn about the moon and planets

### **Physical Science**

#### **Matter**

Students will:

- learn that matter is what makes up all things and can be observed and described by its properties
- learn that mass is the amount of matter in any object
- learn that a balance can measure mass
- learn that solids have a defined shape and fixed amount of matter
- learn the properties of solids: size, texture, shape , flexibility and color
- learn that liquid is a form of matter and that it has no fixed shape and will take the shape of the container
- learn that a gas is a form of matter and that it has no fixed shape and will expand to fill its space
- learn that shape and properties of a solid can be changed
- learn that some mixtures can be separated and some mixture cannot be separated
- learn that freezing changes liquids to solids and melting changes solid to liquids
- learn that heat causes water to evaporate into a gas and cooling changes the gas back into a liquid

#### **Motion and Energy**

Students will:

- learn that objects move in many ways and at different speeds
- learn that pushes and pulls are forces that put things in motion

- learn that simple machines, such as levers and ramps, help people do work by making it easier to move things
- learn that heat energy from the sun, burning fuel and friction all make things warm
- learn that sound is a form of energy made by vibrating objects and can vary in volume and pitch
- learn that light is energy that allows people to see
- learn that light comes from the sun, other stars, and objects made by people
- learn that electricity is a form of energy that gives things the power to work

## **Health**

Students will:

- learn about the skeletal system: skeleton, bones, skull
- learn about the muscular system: muscles
- learn about the digestive system: mouth stomach
- learn about the circulatory system: heart and blood
- learn about the nervous system: brain, nerves
- learn ways to take care of their bodies: exercise, cleanliness, healthy foods, and rest
- learn ways to stay safe indoors and out
- learn to make healthy food choices by learning about the food pyramid

**Materials:**

- McGraw-Hill – Science A Closer Look-Teacher Edition
- McGraw-Hill-Science A Closer Look-Student Edition
- McGraw-Hill-Science A Closer Look-Activity Flipchart
- McGraw-Hill-Science A Closer Look-Transparencies
- McGraw-Hill-Science A Closer Look-Key Concept Cards and Voc. Cards
- McGraw-Hill-Science A Closer Look-Visual Literacy
- McGraw-Hill-Science A Closer Look-Building Skills Assessment
- McGraw-Hill-Science A Closer Look-Reading and Writing
- McGraw-Hill-Science A Closer Look-Activity Lab Book
- McGraw-Hill-Science A Closer Look-Building Skills Math
- McGraw-Hill-Science A Closer Look-Grade1 Materials Kit
- McGraw-Hill-Science A Closer Look-Grade1 Music CD
- Children’s picture books such as the Let’s-Read-and-Find-Out Science Series, HarperCollins Publishers
- Videos such as the Magic School Bus Series

**Instruction:**

Teachers will:

- use videos and books to present lessons
- lead students in class discussion

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