

# SCIENCE OUTCOMES

## FIRST GRADE

### ABILITIES OUTCOME.

1. **Apply science to life** (apply the following to each outcome).
  - A. Use knowledge of science to develop abilities.
    1. **Higher thinking** (analyze, solve, decide, evaluate, classify, develop, create, predict, estimate, generalize).
    2. **Communications** (present, persuade, demonstrate, explain, defend consider, deduce, recommend, share).
    3. **Goal setting and attainment** (research, envision, brainstorm, plan, organize, conduct, persist).
    4. **Experience** (collaborate, ethics, relate, summarize, record, interpret, compare, simplify, conclude).
  - B. Use the scientific method with problems and experiments (think/talk about, decide, try, see if you were right).
  - C. Use scientific equipment in a proper manner.
  - D. Use technology to assist in problem solving.
  - E. Understand the relationship between humans, the environment, and Earth's resources.
    1. Effects of pollution.
    2. Practices of conservation (reuse, reduce, recycle, refuse).
    3. What we can do to promote a healthy world.

### NEW PLANTS

1. Develop a curiosity and interest in plants as living things.
2. Experience some of the diversity of forms in the plant kingdom.
3. Provide for the needs of growing plants.
4. Observe and describe the changes that occur as plants grow and develop.
5. Become familiar with the structures and functions of flowering plants (root, stem, leaf, bud, flower, seed).
6. Discover various ways that new plants can develop from mature plants.
7. Compare change over time in different kinds of plants.
8. Organize and communicate observations through drawing and writing.
9. Acquire the vocabulary associated with the structures of plants.

## **SOLIDS AND LIQUIDS**

1. Develop curiosity and interest in the objects that make up their world.
2. Investigate materials constructively during free exploration and in a guided discovery mode.
3. Recognize differences between solids and liquids.
4. Explore a number of liquids.
5. Observe and describe the properties of solids and liquids.
6. Sort materials according to properties.
7. Combine and separate solids of different particle size.
8. Observe and describe what happens when solids are mixed with water.
9. Observe and describe what happens when other liquids are mixed with water.
10. Use information gathered to conduct an investigation on an unknown material.
11. Acquire the vocabulary associated with the properties of solids and liquids.
12. Use written and oral language to describe observations.

## **BALANCE AND MOTION**

1. Develop a growing curiosity and interest in the motion of objects.
2. Investigate materials constructively during free exploration and in a guided discovery mode.
3. Solve problems through trial and error.
4. Develop persistence in tackling a problem.
5. Explore concepts of balance, counterweight, and stability.
6. Observe systems that are unstable and modify them to reach equilibrium.
7. Discover different ways to produce rotational motion.
8. Construct and observe toys that spin.
9. Explore and describe some of the variables that influence the spinning of objects.
10. Observe and compare rolling systems with different-sized wheels.
11. Explore and describe the motion of rolling spheres.
12. Acquire the vocabulary associated with balance and motion.

