

# 1<sup>st</sup> Grade Science Fair Ideas



**Science Rocks!**

# Suggested Science Fair Project Ideas

## Reporting Category 1 – Matter & Energy (1<sup>st</sup> Grade)

Observable Properties of Materials: larger and smaller, heavier and lighter, shape, color, and texture; Changes in Materials: caused by heating & cooling such as melting, water freezing, and water evaporating

- Does the size of an object help you determine if it's heavy or light?
- How does the texture of an object help in everyday situations?
- Can the shape of a container tell you how much water it can hold?
- Do larger apples have more seeds than smaller apples?
- Can a solid material change its shape?
- Does the flavor of Jello affect how long it takes it to become a solid?
- How long does it take a cup of water to freeze?
- How long does it take an ice cube to melt?
- How long does it take a popsicle to melt?
- Does an ice cube melt faster at room temperature or in tap water?
- Does the shape of an ice cube affect how fast it will melt?
- What will melt faster, a solid ice cube or an ice cube crushed up?
- Which type of water will freeze the quickest: tap water, cool water, or warm water?
- How long will it take for a puddle of water on the sidewalk to evaporate?

## Reporting Category 2 – Force, Motion, & Energy (1<sup>st</sup> Grade)

Forms of Energy: light, sound, heat; Forces Cause Changes: pushing & pulling, magnets; Changes in Location of Object & Movement of Objects such as straight, zig zag, up & down, back & forth, round & round, and fast & slow

- Do rubber bands of different widths produce different sounds?
- Can you demonstrate how sound travels using two paper cups, a long piece of string, and two paperclips?
- What kind of instrument can you create that makes sounds by striking it or plucking it?
- What will happen when you shine a flashlight on different materials such as a mirror, wall, window, picture frame, etc.?
- Does the color of a light bulb affect how the color of an object appears?
- Which brand of chocolate bar melts the quickest using the Sun's heat? (choose 3 different chocolate bars)
- What will a magnet attract (pick up)?
- How many paper clips will a magnet attract (pick up)?
- Does the temperature of a magnet (cold, warm, & room temperature) affect its strength?
- How many magnets will it take to move a paperclip across a table?
- Which magnet (bar, horseshoe, disk, or ceramic) is the strongest?
- Which path (straight, zigzag, or round - all measured 3 meters long) will get you from point A to point B the fastest?
- Using a paper clip and a block eraser, which item takes fewer pushes to move from point A to point B?
- Which type of toy car (Hot Wheels or Match Box) can you push farther from the starting line?

## Reporting Category 3 – Earth & Space (1<sup>st</sup> Grade)

Soil Components: by size, texture, & color; Natural Sources of Water: streams, lakes, and oceans; How Rocks, Soil, & Water Make Useful Products; Weather Information: INCLUDING relative temperature (hot or cold, clear or cloudy, calm or windy, & rainy or icy); Changes in the Appearance of Objects in the Sky: SUCH AS clouds, the Moon, & the Stars, INCLUDING the Sun; Characteristics of the Seasons & Day/Night; Air is ALL Around Us & Wind is Moving Air

- ❖ How does the texture, size of particles, and color of different soils (such as sand, silt, and clay) compare?
- ❖ How does the soil in your backyard compare to the potting soil you buy at the store?
- ❖ What is the difference between freshwater (streams and lakes) and saltwater (oceans)?
- ❖ Construct a wind sock and a thermometer. Observe and record wind patterns and the temperature for 2 weeks. How does wind affect the temperature?
- ❖ Construct a wind sock. Observe and record wind patterns every 2 hours for 3 days. How does wind direction change hour by hour?
- ❖ How does the temperature change during the day? At what time is the temperature usually the warmest?
- ❖ How does weather information such as hot or cold, clear or cloudy, and calm or windy affect how fast a puddle evaporates?
- ❖ Create a pinwheel. Does the pinwheel always spin at the same speed (slow or fast)?
- ❖ Observe and record the type of clouds you see over a period of a week. (Were the clouds the same each day? What type of weather occurred with each type of cloud?)
- ❖ What is the difference between the Moon and the Sun?
- ❖ Observe and record your shadow for 2 days at 8:00 am, 10:00 am, 12:00 pm, 2:00 pm, 4:00 pm, and 6:00 pm. How does the size and shape of your shadow change throughout the day?
- ❖ Observe and record the shape of the Moon for 4 weeks. What patterns did you observe over time?
- ❖ How do weather conditions and your outdoor activities change from season to season?
- ❖ Draw of picture of day and night. How are they alike and how are they different?

## **Reporting Category 4 – Organisms & Environments (1<sup>st</sup> Grade)** **[NO LIVING ANIMALS, PLANTS, OR MOLD CULTURES ALLOWED FOR PRESENTATION]**

Living and Nonliving Things; Basic Needs; Interdependence SUCH AS Terrariums, Aquariums, or Pets; Food Chains; External Characteristics of Animals: where it lives, how it moves, and what it eats; Parts of a Plant; How Young Animals Resemble their Parents; Life Cycles: chicken, frog, & fish

- ✓ What are living and nonliving things?
- ✓ (Observe a small plant.) What do plants need to live? What are the basic parts of a plant? How do they help the plant live?
- ✓ (Have student help take care of the family pet.) What do animals need to live? How does the caregiver help it get food and water? What body part of the pet helps it get air?
- ✓ Do bean plants grow better with sunlight or in darkness?
- ✓ Do bean plants grow better being watered once a week or three times a week?
- ✓ What effect does music have on the growth of a bean plant?
- ✓ Does the color of light bulb affect the growth of a bean plant?
- ✓ Compare the external characteristics of two animals. (chicken, frog, or fish)
- ✓ Why are the feathers of a bird important?
- ✓ What is the difference between a frog and a fish?
- ✓ How do different animal coverings (such as fur - on a rabbit, scales - on a snake or fish, feathers - on a hummingbird) help an animal survive?
- ✓ Using a set of parent and animal baby pictures, can you match the correct parent to its young?
- ✓ Compare the life cycle of a chicken to a frog or a frog to a fish. How are they alike and how are they different?