

# Weather Conceptual Story

Science & Technology for Children - Grade 1

**K-12 Unifying Concept:** Our physical world is made of substances, materials, and objects that can be identified by their unique properties, and is organized into systems that are interconnected.

**First Grade Level Concept:** The sun, air, and water work together to give us our weather.

**Sub-concept:** Weather indicators include temperature, wind direction and speed, and precipitation.

**Sub-concept:** Air is a substance that surrounds us and takes up space. We feel its movement as wind.

**Lesson 1**  
**What We Know About Weather**  
Students describe the day's weather and discuss how they decide what to wear.

**Lesson 2**  
**Observing the Weather**  
Students use their senses to observe weather.

**Lesson 3**  
**Recording the Weather**  
Students record cloud cover and precipitation data based on their observations.

**Lesson 4**  
**Estimating the Wind Speed**  
Students observe, describe, and record speed of wind as measured by a flag.

**Sub-concept:** We use tools such as thermometers and rain gauges to measure weather conditions.

**Lesson 5**  
**Reading a Thermometer**  
Students observe and discuss thermometers as tools that measure temperature.

**Lesson 6**  
**Making a Model Thermometer**  
Students read and record temperature as shown on a thermometer and relate it to clothing worn.

**Lesson 7**  
**Comparing Inside and Outside Temperatures**  
Students compare inside and outside temperatures using their thermometers.

**Lesson 8**  
**Measuring Water Temperature**  
Students measure and record hot and cold water temperatures. They experiment mixing the water and discuss results.

**Lesson 9**  
**Experimenting with Color and Temperature**  
Students set up a simple experiment that demonstrates the relationship between color and the absorption of heat.

**Lesson 10**  
**Making a Rain Gauge**  
Students make a simple rain gauge. They measure and record the amount of rainfall using these rain gauges.

**Sub-concept:** When water disappears, it turns into a gas (vapor) in the air. Clouds and fog are made of tiny droplets of water.

**Sub-concept:** We attempt to forecast weather in order to plan activities and what to wear.

**Lesson 11**  
**Exploring Puddles**  
Students observe and record changes in a pie-tin puddle they keep in the classroom.

**Lesson 13**  
**Observing Clouds**  
Students observe, draw, and discuss cloud formations.

**Lesson 14**  
**Classifying Clouds**  
Students sort cloud pictures using the categories of stratus, cumulus, and cirrus.

**Lesson 12**  
**Testing Rainy Day Fabrics**  
Students conduct an experiment with different fabrics and water in order to determine which are suitable for wet weather.

**Lesson 15**  
**Comparing Forecasts to Today's Weather**  
Students make forecasts for the next day's weather and compare their prediction with what actually occurs.