GENERATIONGENIUS
ALWAYS QUESTION. ALWAYS WONDER.

LESSON PLAN

INTRODUCTION TO WEATHER
GRADES K-2

SUMMARY

Students learn how scientists use patterns to predict weather. Duration: 45 minutes.

NEXT GENERATION SCIENCE STANDARDS CORRELATION

K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.

Science & Engineering Practices	Connections to Classroom Activity
Analyzing and Interpreting Data	• Students will look at differences in cloud types to predict weather associated with them.
Disciplinary Core Ideas	**Connections to Classroom Activity**
ESS2.D: Weather and Climate Weather is the combination of sunlight, wind, snow or rain and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (K-ESS2-1)	• Students will make three different types of clouds using cotton balls. They will learn that some weather conditions can be predicted by observing clouds.
Crosscutting Concepts	**Connections to Classroom Activity**
Patterns **Systems and System Models**	• Students learn that clouds are part of the patterns scientists use to make weather predictions.

ENGAGE

Ask students if they have ever seen shapes of things in the clouds and allow students to share. Segue to the activity by telling students that clouds are one of the ways scientists can predict the weather since different clouds can signal different types of weather.

MATERIALS

- Cotton balls
- Glue
- Light blue construction paper
- Markers
- Optional: Grey spray paint

DIY Activity

- Ruler
- Cup of sand or pebbles
- Permanent marker
- Empty 2-liter bottle
- Pair of scissors
- 4 Paper clips
- Rain journal

EXPLORE

Have students fold a piece of construction paper into thirds so that it has three equal sized sections. In each section, have students write titles for each section.

- Section 1: Sunny Weather
- Section 2: Rainy Weather
- Section 3: Thunderstorm

Next provide cotton balls and markers to students and allow them to illustrate each type of weather. If you have grey spray paint, it would be great to have some cotton balls spray painted grey ahead of time. For sunny weather, students should include little to no clouds, they should draw the sun shining. For rainy weather, they should include cotton ball clouds and illustrate drops of water falling down from them. For thunderstorms, students should make very large and tall clouds, ideally grey or dark in color. A lightning bolt can be illustrated as well.

EXPLAIN

Have students share their creations and explain why they chose to make the clouds in the way that they did. Ask students to think about a time when they have looked out the window and looked at the clouds to help them decide what to wear. One possible question, “If you saw dark thick clouds, how would that help choose your clothes?” They most likely will say they need a raincoat or umbrella.

Emphasize the pattern that seeing no clouds indicates good weather, grey clouds can indicate rain and large dark clouds can indicate a thunderstorm.

ELABORATE

WATCH THE GENERATION GENIUS INTRODUCTION TO WEATHER VIDEO AS A GROUP

Facilitate a conversation using the Discussion Questions and ask students to look for other things besides clouds that help us predict the weather.

EVALUATE

Students can play the online Kahoot! quiz game located below the video which provides downloadable scores at the end of the quiz game. Alternatively, you can use the paper quiz or the exit ticket questions. All these resources are located below the video in the Assessment section.

EXTENSION

There are more scientific terms for different cloud types, but these are usually reserved for older students. If you want to introduce these vocabulary words, you can introduce Stratus clouds which are low lying grey clouds. Cumulus clouds which are fair weather clouds that make shapes. And Cumulonimbus clouds which make thunder and lightning. They are typically anvil shaped, tall, grey and puffy.