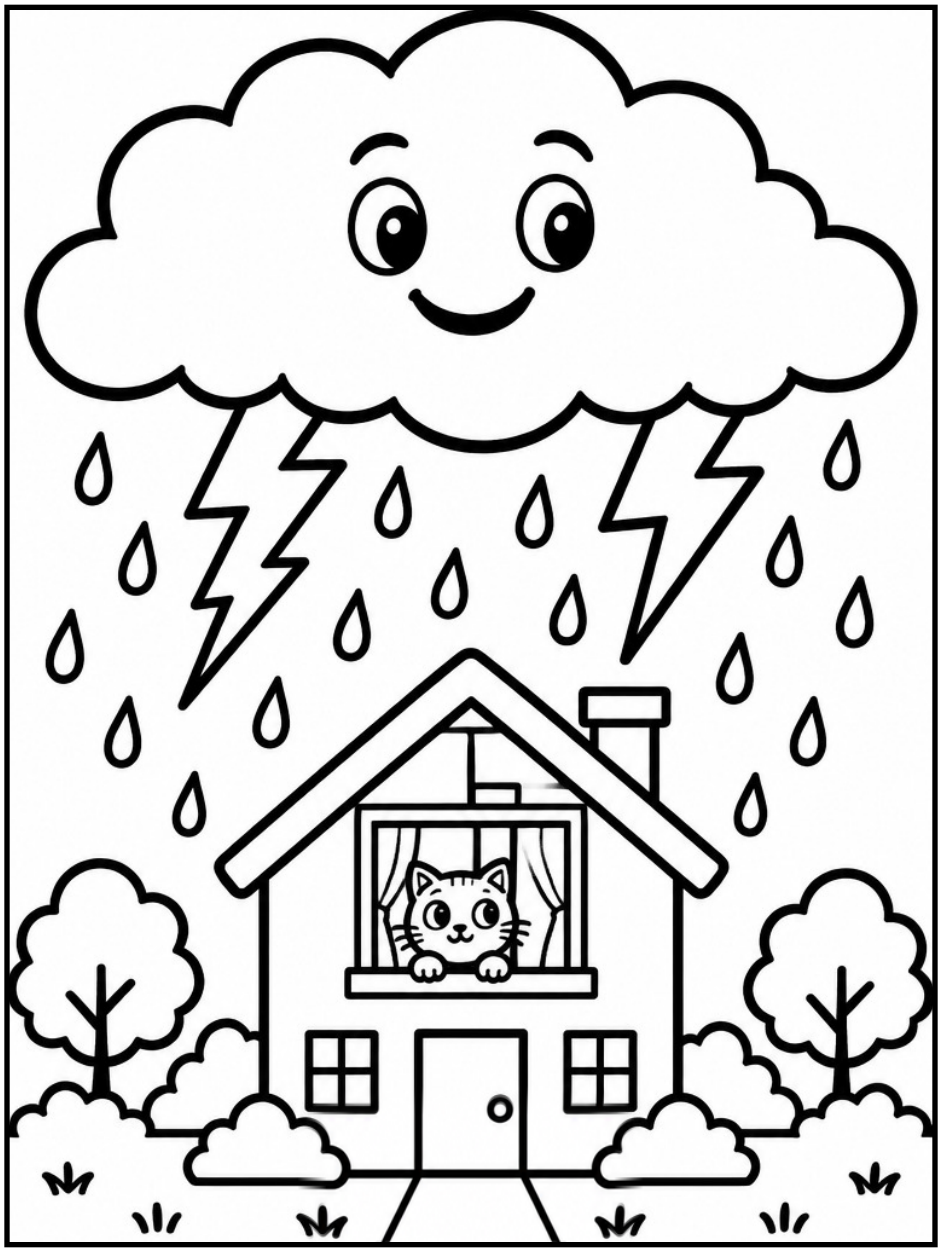
Weather & Storms

Learning Pack · Color It. Learn It. Explore It.

Ages 6–10 · Grades 1–4 (approximate) · Earth Science / Meteorology · 30–75 minutes

Name: _____



Inside: facts · vocabulary · label the clouds · weather tools · storm safety · quiz · answer key · notes

What you will learn

Learning objectives

- ☐ Explain what weather is.
- ☐ Describe how clouds form.
- ☐ Name four kinds of clouds.
- ☐ Match weather tools to what they measure.
- ☐ Know how to stay safe in storms.

Five weather facts

Fact 1: What weather is

Weather describes what the air is like at a particular time and place — how warm, wet, windy or cloudy it is.

Fact 2: How clouds form

Clouds form when water vapor in the air cools. It condenses into tiny water droplets, and in very cold air some vapor turns straight into ice crystals.

Fact 3: Wind is moving air

Wind is moving air. Air moves from places with higher air pressure toward places with lower air pressure.

Fact 4: Lightning and thunder

Lightning is a giant spark of electricity in a storm. It heats the air so fast that the air bursts outward with a boom — thunder.

Fact 5: Storm safety

When thunder roars, go indoors! If you can hear thunder, you are close enough to be struck by lightning.

Sources (checked October 2026)

Facts 1–3: NOAA SciJinks, scijinks.gov (What is weather? · How do clouds form? · What is wind?)
Facts 4–5: NOAA National Weather Service, weather.gov/safety/lightning

Weather vocabulary

Weather	What the air outside is like at one time and place.
Climate	The usual weather in a place over many years.
Water vapor	Water as an invisible gas in the air.
Condensation	When water vapor cools and turns into tiny liquid water droplets. (Ice crystals in very cold clouds form a different way.)
Precipitation	Water that falls from clouds: rain, snow, sleet or hail.
Temperature	How hot or cold something is.
Lightning	A giant spark of electricity in a storm cloud.
Thunder	The loud boom made when lightning heats the air.
Meteorologist	A scientist who studies and forecasts the weather.

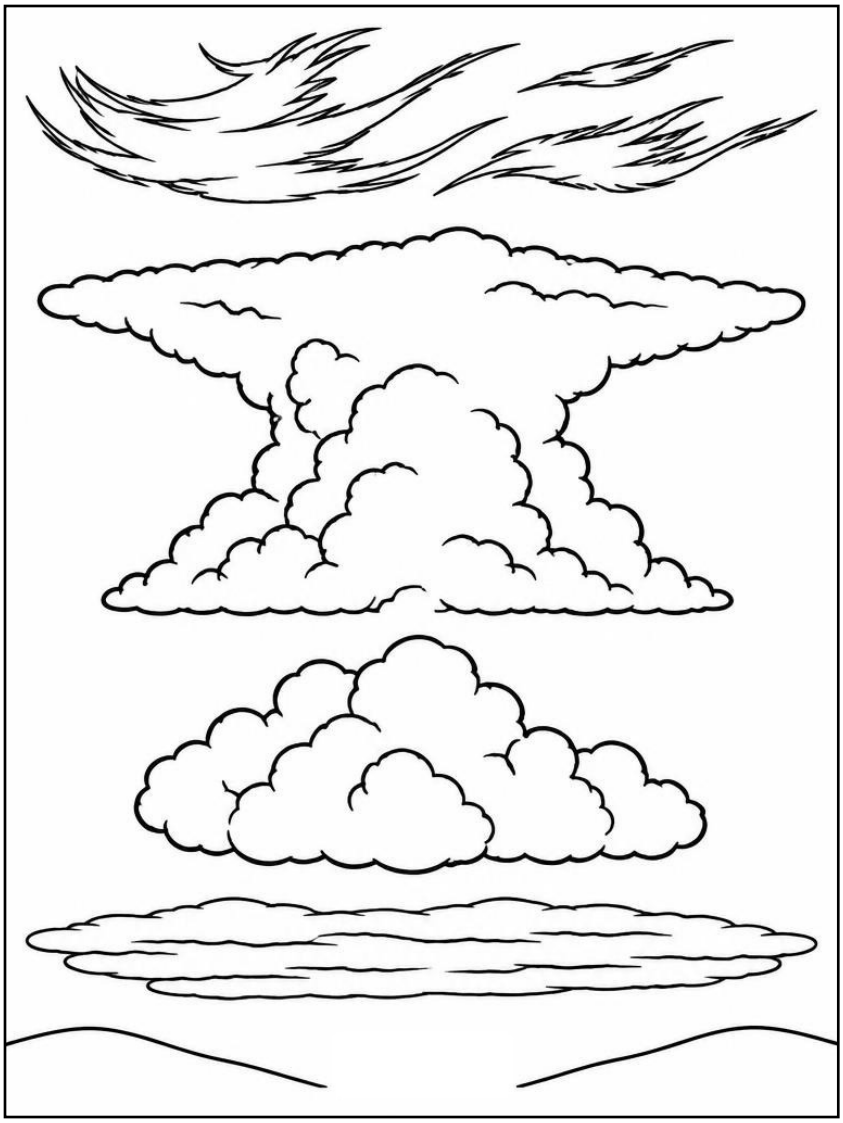
Your turn: write a sentence using one of the new words.

Label the clouds

Name: _____ Date: _____

Write the name of each cloud on the line with the matching number.

cirrus · cumulus · cumulonimbus · stratus



1 _____

thin, wispy and high in the sky

2 _____

a tall storm cloud with a flat top

3 _____

puffy, like cotton balls

4 _____

flat, gray layers low in the sky

Weather science activities

Name: _____ Date: _____

Activity A: Weather tools

Draw a line from each tool to what it measures.

Thermometer	○	○ which way the wind is blowing
Rain gauge	○	○ how hot or cold the air is
Wind vane	○	○ how fast the wind is blowing
Anemometer	○	○ how much rain has fallen

Activity B: Storm safety

Draw a line from each kind of weather to the safe thing to do.

Thunderstorm	○	○ go to a basement, or a small inside room on the lowest floor of a sturdy building, away from windows
Tornado warning	○	○ stay inside and keep warm in layers
Very hot, sunny day	○	○ go indoors and stay away from windows
Snowstorm	○	○ drink water, wear a hat and find shade

Draw today's weather outside your window:

Weather quiz

Name: _____ Date: _____

1. Weather is...

- ◯ a) what the air outside is like at one time and place
- ◯ b) the same every day everywhere
- ◯ c) only rain

2. Clouds are made of...

- ◯ a) cotton
- ◯ b) tiny water droplets or ice crystals
- ◯ c) smoke

3. Wind is...

- ◯ a) moving air
- ◯ b) falling water
- ◯ c) a kind of cloud

4. Thunder is caused by...

- ◯ a) clouds bumping together
- ◯ b) lightning heating the air very fast
- ◯ c) strong wind

5. If you hear thunder, you should...

- ◯ a) go swimming
- ◯ b) stand under a tall tree
- ◯ c) go indoors

Bonus: What is your favorite kind of weather, and what do you like to do in it?

Answer key

Label the clouds (top to bottom)

1. cirrus
2. cumulonimbus
3. cumulus
4. stratus

Activity A: Weather tools

Thermometer → how hot or cold the air is

Rain gauge → how much rain has fallen

Wind vane → which way the wind is blowing

Anemometer → how fast the wind is blowing

Activity B: Storm safety

Thunderstorm → go indoors and stay away from windows

Tornado warning → go to a basement, or a small inside room on the lowest floor of a sturdy building, away from windows

Very hot, sunny day → drink water, wear a hat and find shade

Snowstorm → stay inside and keep warm in layers

Weather quiz

1. a) what the air outside is like at one time and place
2. b) tiny water droplets or ice crystals
3. a) moving air
4. b) lightning heating the air very fast
5. c) go indoors

Bonus (sample answer): Any weather is fine with a reason — for example, snow, because I can build a snowman.

Teacher and parent notes

Who it is for

Ages 6–10 (about grades 1–4). Younger children can do the coloring and vocabulary pages with help reading.

Time

30–75 minutes, depending on the activities selected. Use two or three pages for a short lesson, or the full pack across two lessons.

Suggested order

1) Read the facts aloud (10 min). 2) Vocabulary (10 min). 3) Label the clouds (10 min). 4) Tools and safety matching (15 min). 5) Quiz (10 min). 6) Color a sheet from the free Storm & Weather collection (10+ min).

Hands-on activity: weather watch

For one week, step outside at the same time each day. Children record the temperature, draw the clouds they see, and note whether it is windy, rainy or calm. At the end, talk about which day was warmest and which clouds came before rain.

Discussion questions

How is weather different from climate? Why do we see lightning before we hear thunder? What should your family do if a storm warning is issued?

A note on safety

Storm safety advice follows the U.S. National Weather Service. Always follow local warnings and the instructions of a trusted adult.

Safe weather watching

Make weather observations from indoors, through a window, whenever conditions are dangerous — including lightning, severe storms, extreme heat and dangerous cold.

Matching coloring pages

doodlelearn.com/coloring-pages/extreme-weather