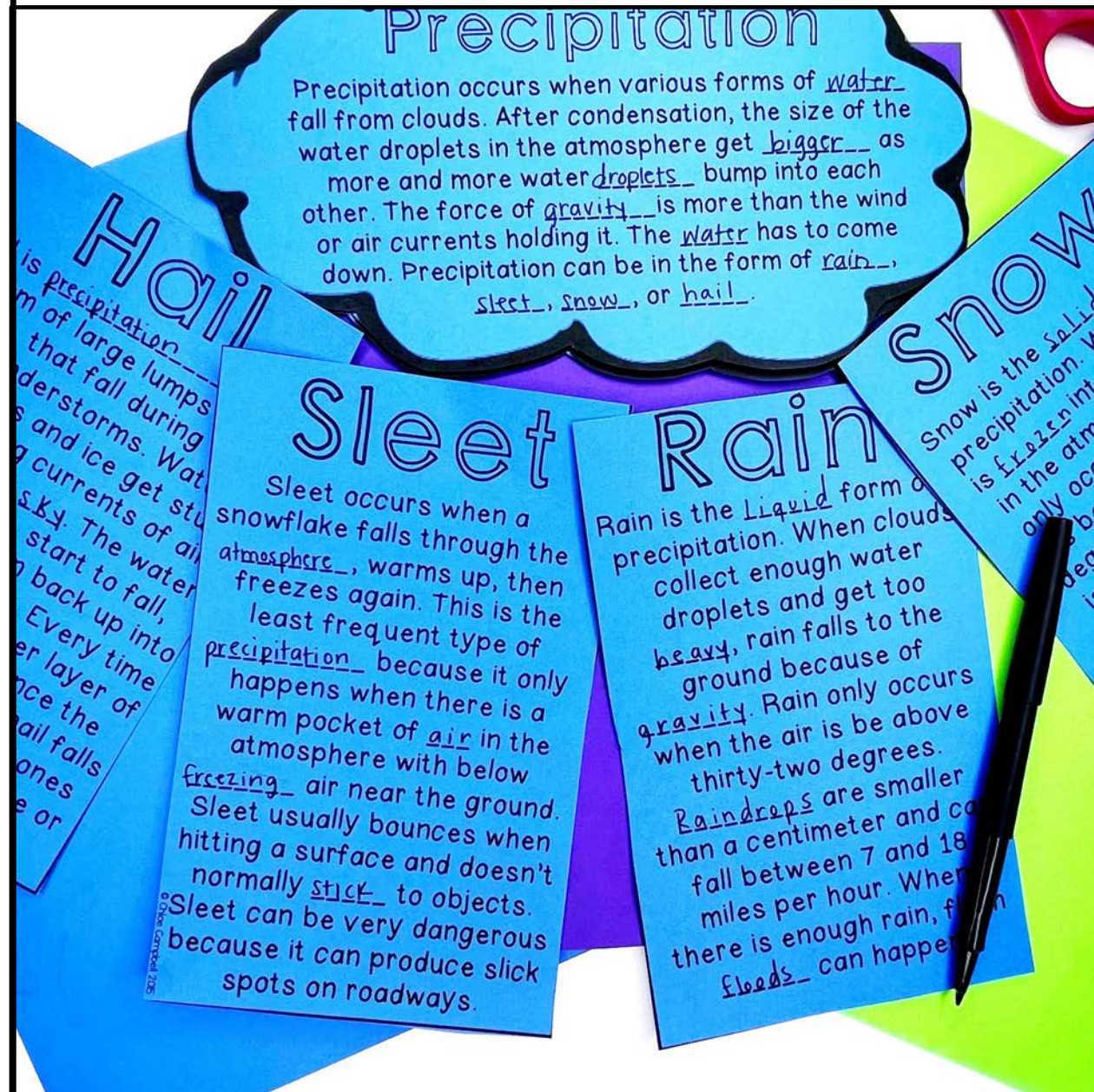


Struggling to find a hands-on way to teach weather?

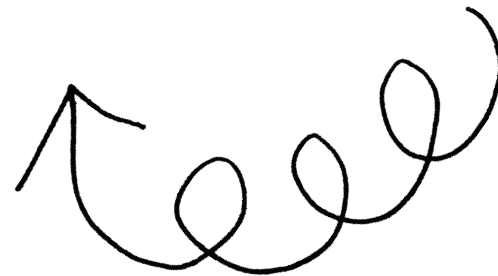
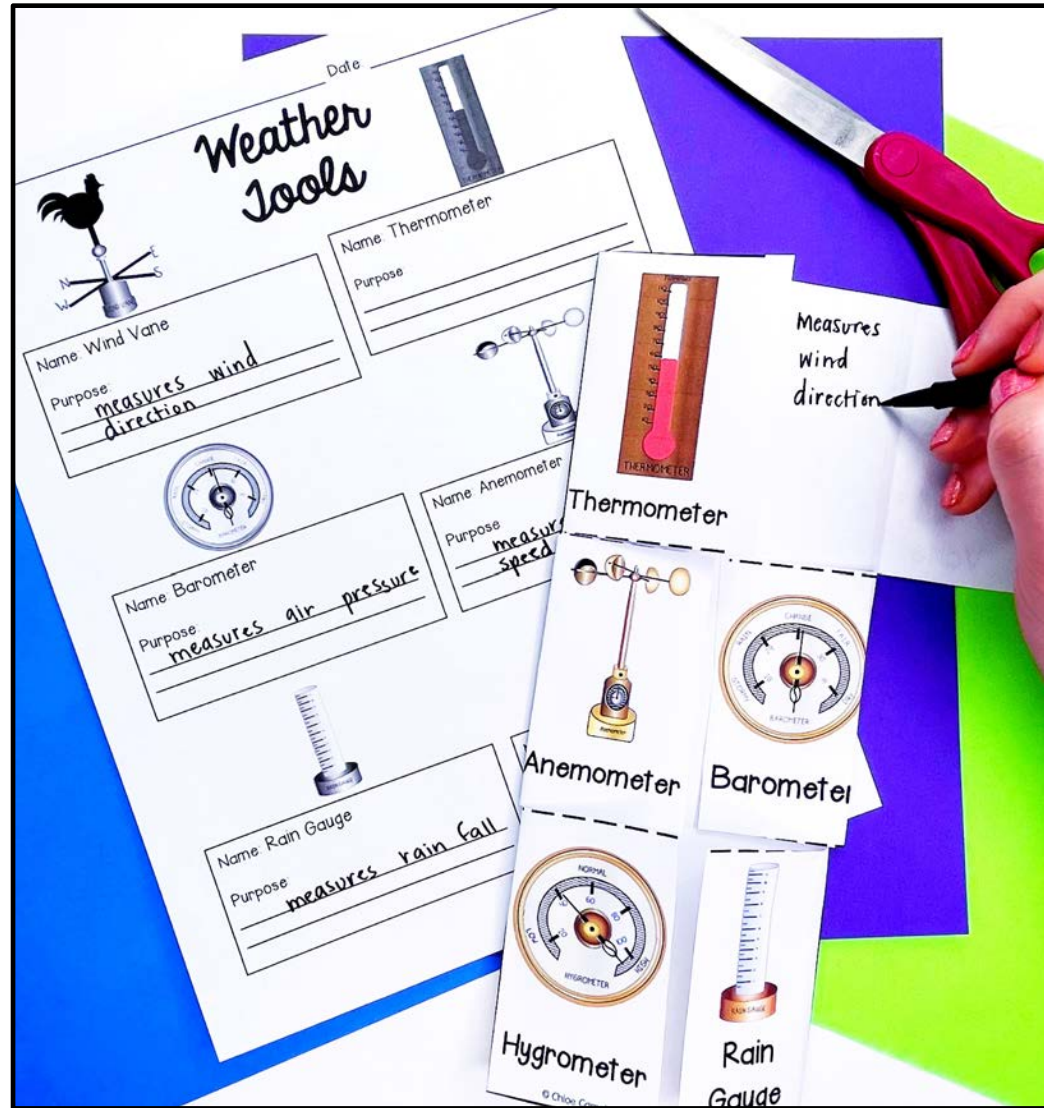


Don't spend any more time planning, searching, or brainstorming. Everything you need is in this easy to use download!

WEATHER UNIT

- Types of Precipitation
- Weather Tools
- Climate Zones
- Types of Clouds

BUNDLE



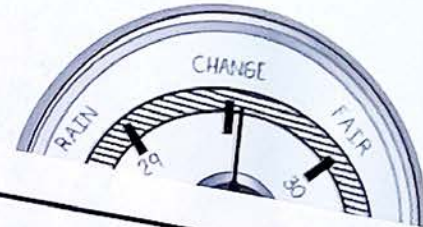
Make Your Own Weather Instrument: Rain

- Materials:
- Clear plastic ruler
 - Permanent marker
 - Cylinder shaped glass jar
 - Rubber band

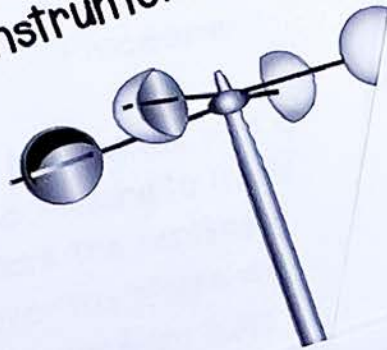
Make Your Own Weather Instruments: Barometer

Materials:

- Washed glass jar or small coffee can

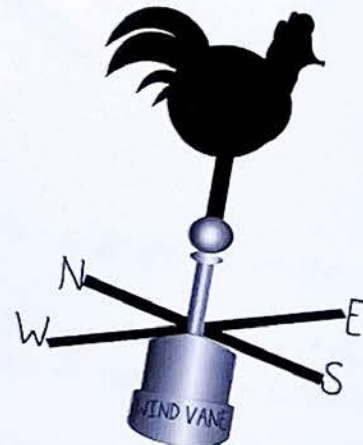


Make Your Own Weather Instrument: Anemometer



Make Your Own Weather Instrument: Wind

- Materials:
- Manila file folder
 - Straight pins
 - Eraser



- Materials:
- 4 small paper cups
 - 4 plastic drinking straws
 - Tape
 - Scissors

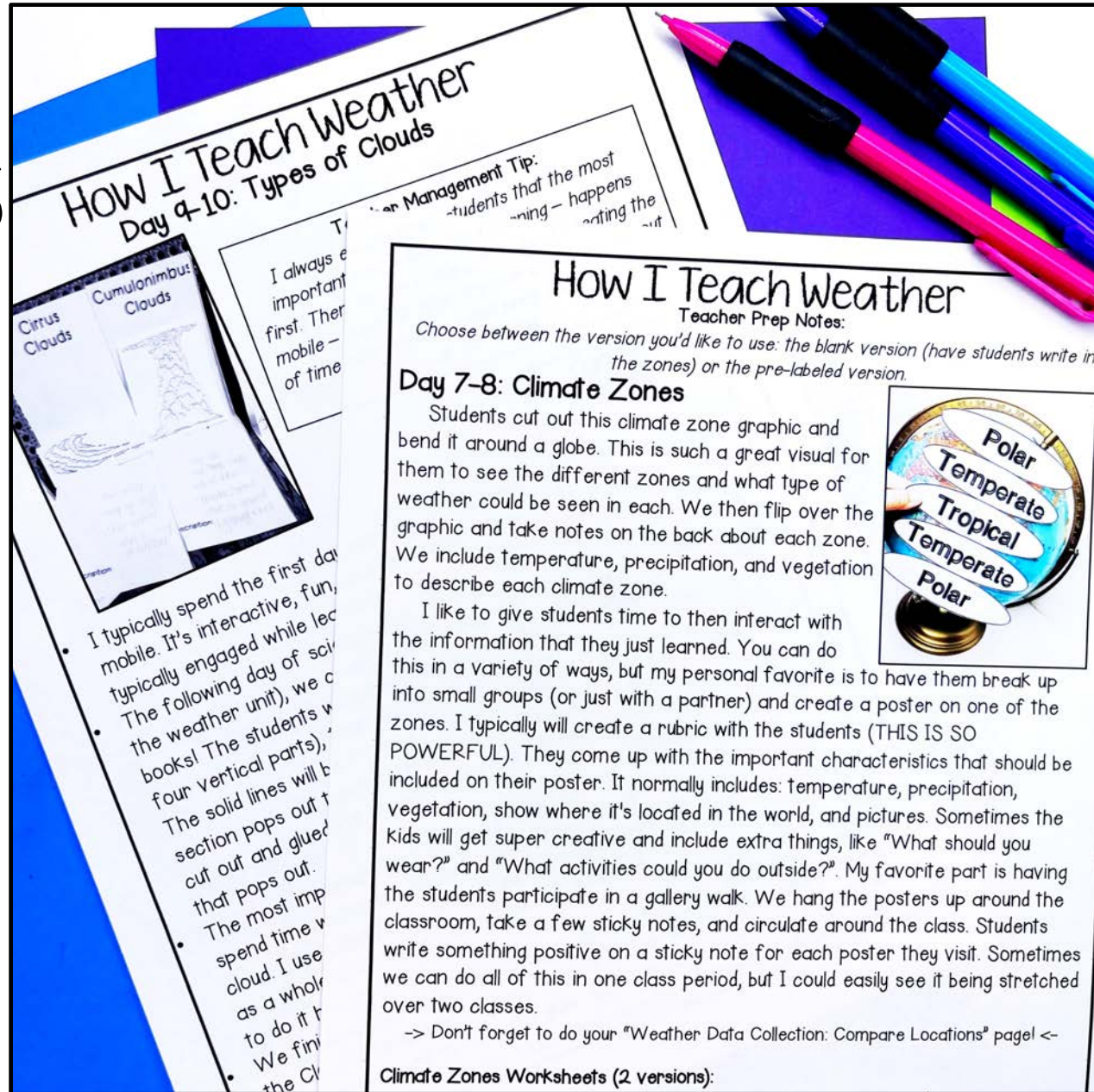
Make Your Own Weather Instrument: Thermometer

- Materials:
- Rubbing alcohol
 - Water
 - Cylinder shaped clear jar or bottle (bottles with a narrow neck work best)
 - 1 straw
 - Modeling clay
 - Food coloring

...n the file folder that is 5cm long.
...e file folder that is 7cm long
...each straw.
...ow tail into the cuts in the straw.
...iddle of the straw
...to the eraser end
...a lump of modeling clay; this will be your

Teacher Directions Page

- Learning Goals
- Materials Needed
- Specific Directions for All Parts of Lesson



How I Teach Weather
Day 9-10: Types of Clouds

Cumulonimbus Clouds

Cirrus Clouds

Management Tip:
Students that the most
-ning - happens
-nting the
-if

I always e
important
first. Ther
mobile -
of time

I typically spend the first day
mobile. It's interactive, fun,
typically engaged while lec
The following day of sci
the weather unit), we c
books! The students v
four vertical parts),
The solid lines will b
section pops out t
cut out and glued
that pops out.
The most imp
spend time v
cloud. I use
as a whole
to do it t
We fini
the Cl

How I Teach Weather
Teacher Prep Notes:
Choose between the version you'd like to use: the blank version (have students write in the zones) or the pre-labeled version.

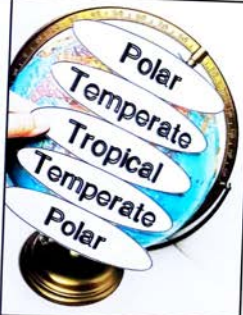
Day 7-8: Climate Zones

Students cut out this climate zone graphic and bend it around a globe. This is such a great visual for them to see the different zones and what type of weather could be seen in each. We then flip over the graphic and take notes on the back about each zone. We include temperature, precipitation, and vegetation to describe each climate zone.

I like to give students time to then interact with the information that they just learned. You can do this in a variety of ways, but my personal favorite is to have them break up into small groups (or just with a partner) and create a poster on one of the zones. I typically will create a rubric with the students (THIS IS SO POWERFUL). They come up with the important characteristics that should be included on their poster. It normally includes: temperature, precipitation, vegetation, show where it's located in the world, and pictures. Sometimes the kids will get super creative and include extra things, like "What should you wear?" and "What activities could you do outside?". My favorite part is having the students participate in a gallery walk. We hang the posters up around the classroom, take a few sticky notes, and circulate around the class. Students write something positive on a sticky note for each poster they visit. Sometimes we can do all of this in one class period, but I could easily see it being stretched over two classes.

-> Don't forget to do your "Weather Data Collection: Compare Locations" page! <-

Climate Zones Worksheets (2 versions):



Hands On Activities!

Precipitation

Precipitation occurs when various forms of water fall from clouds. After condensation, the size of the water droplets in the atmosphere get bigger as more and more water droplets bump into each other. The force of gravity is more than the wind or air currents holding it. The water has to come down. Precipitation can be in the form of rain, sleet, snow, or hail.

Hail

Hail is precipitation in the form of large lumps of ice that fall during thunderstorms. Water droplets and ice get stuck together by currents of air. The water droplets start to fall, but get pushed back up into the air. Every time they fall, a new layer of ice builds up. Once the hail falls, it can be very dangerous.

Sleet

Sleet occurs when a snowflake falls through the atmosphere, warms up, then freezes again. This is the least frequent type of precipitation because it only happens when there is a warm pocket of air in the atmosphere with below freezing air near the ground. Sleet usually bounces when hitting a surface and doesn't normally stick to objects. Sleet can be very dangerous because it can produce slick spots on roadways.

Rain

Rain is the liquid precipitation. Water droplets collect and grow into heavy raindrops on the ground. Gravity pulls them down when the air is less than thirty-two degrees Fahrenheit. Raindrops are smaller than a centimeter and fall between 7 and 16 miles per hour. When there is enough rain, flash floods can happen.

Snow

Snow is the solid precipitation. It is made of ice crystals.

Weather Tools

Name _____ Date _____

Wind Vane
Name: _____
Purpose: measures wind direction

Thermometer
Name: _____
Purpose: _____

Barometer
Name: _____
Purpose: measures air pressure

Anemometer
Name: _____
Purpose: measures wind speed

Thermometer
Name: _____
Purpose: _____

Rain Gauge
Name: _____
Purpose: measures rainfall

Anemometer
Name: _____
Purpose: _____

Barometer
Name: _____
Purpose: _____

Hygrometer
Name: _____
Purpose: _____

Rain Gauge
Name: _____
Purpose: _____

Measures wind direction

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ENGAGING LESSONS

Climate Zones

Name: _____ Date: _____

Climate Zones Directions:

1. Color in the box by each climate zone. Then color the climate zones to match.
2. At the bottom, describe the type of weather you would experience in each zone.

Directions:

1. Draw the climate zones.
2. Describe the type of weather you would experience in each zone.

North America
South America

Legend:

- Polar
• farthest from equator
- Tropical
• experience wide range of temperatures

Stratus

- Gray clouds that cover the entire sky
- Light mist or drizzle sometimes

Cumulonimbus

- Thunderstorm clouds
- Tall
- Dark gray

Cirrus

- High clouds
- Thin, wispy
- Fair to pleasant weather

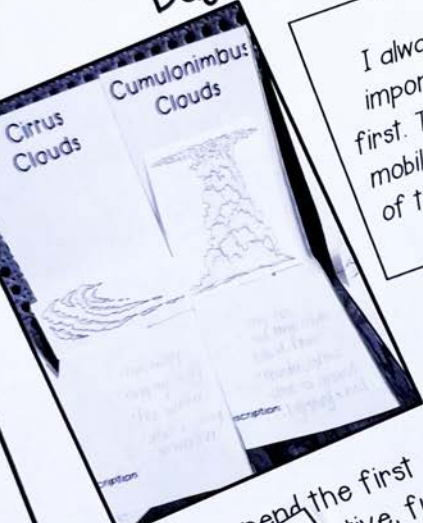
Cumulus

- White, puffy clouds
- Fair weather

How I Teach Weather

Day 9-10: Types of clouds

Teacher Management Tip:
I always explain to my students that the most important part – the actual learning – happens first. Then the fun – the cutting, tying, creating the mobile – happens after the learning. If you run out of time coloring, no big deal since it's not the focus of our lesson.



I typically spend the first day working on the cloud students are active, fun while learning about the science of clouds. I typically spend the first day working on the cloud students are active, fun while learning about the science of clouds.

Cumulonimbus

Cumulus

Stratus

Cirrus

Cloud Characteristic Chart

Good weather	X			
Thunderstorms			X	
Light rain or Drizzle		X		
Gray in Color	X	X	X	
Cover most of the sky	X			
White in Color		X		
Flat	X			
Fluffy		X		
Tall			X	
Wispy	X			
Thin	X			
Low Cloud		X	X	X
High Cloud	X			X

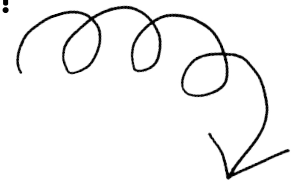
Many ways to interact with weather content!

- Foldable Notes
- Cut & Sorts
- Models
- Mobile
- Matching Game
- Checklists
- Color Code Map

Quick Assessments

Use the included simple exit ticket questions to measure your students' learning at the end of the lesson.

End of Unit assessment is also available!



BONUS: Includes a Mastery Checklist. You can easily keep track of students who need extra practice and students who are ready to move on to the next lesson in one easy place!

