

Struggling to find a hands-on way to teach the different types of weather tools?



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

Weather Tools

Includes:

- Teacher Directions
- Foldable Notes
- Matching Game
- Who Am I? Game
- Weather Data Tracking Page
- Make Your Own Weather Instruments
- Weather Data Collection Handout to Practice Using Tools
- Weather Tools Worksheet
- Exit Slips
- Mastery Checklist



Teacher Directions Page

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

How I Teach Weather
Weather Tools Creation & Data Collection

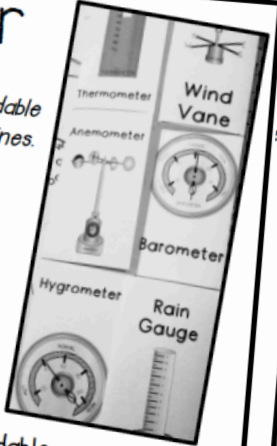
Teacher Prep Notes:
Cut out the "What Am I?" cards. You'll need one card per student. I always print a few extras. Print the "Weather Data Collection: Compare Locations" page.

Continue

- Whenever we have a "What Am I?" day, I cut out the cards, don't show them to the students, and walk to different locations around the school. Explain to the students that the purpose of this game is to help them learn about weather tools. Whenever we have a "What Am I?" day, I cut out the cards, don't show them to the students, and walk to different locations around the school. Explain to the students that the purpose of this game is to help them learn about weather tools.
- I'll typically use the cards as a place to put the weather tools foldable. I'll typically use the cards as a place to put the weather tools foldable.

How I Teach Weather
Weather Tools Foldable Notes & Matching Game

Teacher Prep Notes:
Use either the color or black/white version. Print the foldable one sided. Cut on the dotted lines and fold on the solid lines.



- We review the four types of precipitation and gestures from yesterday. I do this almost every day of the unit so that we keep it fresh in the students' minds and it only takes a few minutes. I jump right in to the weather tools foldable by asking students to look at the pictures on the foldable. They make predictions with their teammates about each tool's purpose and how they think scientists use them to predict weather. We go through each tool, talk about it, show them a real life example (I've collected a few from grants in the past), and take a few notes about each weather tool inside the foldable. If you don't have any actual examples of the tools, this is a great time to find a few videos on YouTube, BrainPop, or some other education website (I say that like YouTube is educational ☺) to show them these tools in action.
- Then we play the weather tools matching game. There are twelve cards (one for each tool and one for each definition) and SO MANY options for games! For the first time playing with the cards, I have students play the traditional matching game. Match the tool purpose to the weather tool name. See the next page for a fun alternative to the traditional matching game!

© Chloe Campbell 2015

Foldable Notes





Weather Tools Practice



Name: _____ Date: _____

Weather Data Collection: Compare Locations

Location: _____

| Date | Time | Weather Conditions | Air Pressure | Rain Collected | Wind Speed | Wind Direction | Temperature |
|------|----------|--------------------|--------------|----------------|------------|----------------|-------------|
| 6/18 | 11:43 am | Cloudy | 30 | 0 cm | 4 mph | SW | 84° |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Location: _____

| Date | Time | Weather Conditions | Air Pressure | Rain Collected | Wind Speed | Wind Direction | Temperature |
|------|----------|--------------------|--------------|----------------|------------|----------------|-------------|
| 6/18 | 11:43 am | Cloudy | 30 | 0 cm | 4 mph | SW | 84° |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Compare and contrast the weather in the two locations, according to the data you gathered.

What would cause the different weather in these locations?

Anemometer

Rain Gauge

Hygrometer

Rain Gauge

Use scientifically made weather tools to measure:

| Tool Name | Measurement |
|-------------|-------------|
| Thermometer | |
| Barometer | |
| Wind Vane | |
| Anemometer | |
| Rain Gauge | |

Do you think the weather instruments you made are as accurate as those used by professional meteorologists? Why or why not?

How could you change your tools to be more accurate?

Anemometer

Measure
Air
Pressure

Rain Gauge

Wind Vane

Hygrometer

Thermometer

Barometer

Hygrometer

Measure
Wind
Direction

Make Your Own Weather Instrument: Rain Gauge

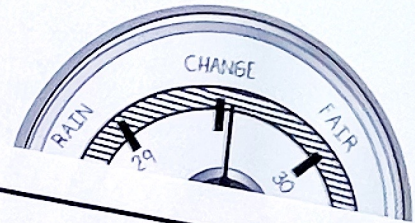
Materials:

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

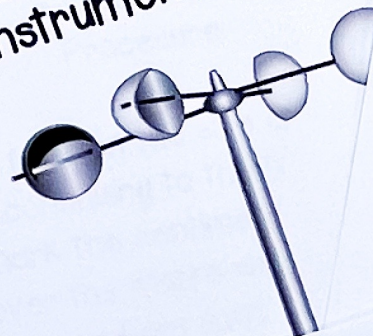
Make Your Own Weather Instruments: Barometer

Materials:

• Painted glass jar or small coffee can



Make Your Own Weather Instrument: Anemometer



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

Procedure:

1. Remove the jar's label.

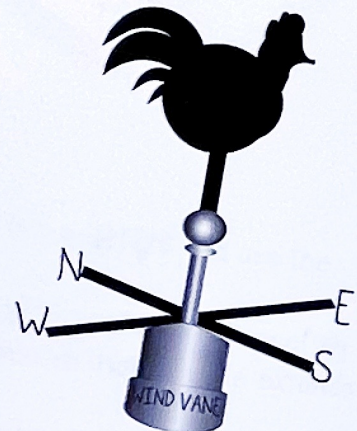
2. Cut the top from the jar and make a small hole (for the straw to go through) in the center of the lid.

3. Fill the jar with water and rubbing alcohol into the jar, filling it about 3/4 full.

Make Your Own Weather Instrument: Wind Vane

Materials:

- Manila file folder
- Straight pin
- Eraser



1. Cut the file folder that is 5cm long.

2. Cut the file folder that is 7cm long.

3. Cut each straw.

4. Push the straw into the cuts in the file folder.

5. Push the straw into the middle of the straw.

6. Push the straw into the eraser end of the eraser.

7. Push a lump of modeling clay; this will be your wind vane.

8. Push the file with NE SW.

Quick Assessments

Name: _____

Describe each weather tool's purpose.

Wind Vane: _____

Barometer: _____

Rain Gauge: _____

Hygrometer: _____

Anemometer: _____

Thermometer: _____

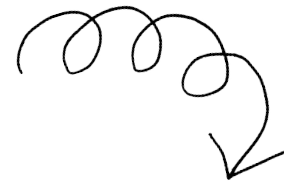
Name: _____

How are the wind vane and the anemometer different?

Name: _____

Name and describe the six weather tools:

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



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!