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RESOURCE AREA FOR TEACHING

MAKER JOURNAL

Name:_____ Date:_____

Project/Unit: Design a Weather Instrument Lesson: Design Challenge, Test

Anemometer (spinning style)

Count the number of full rotations for your anemometer for exactly one minute. Record the spins per minute, where, and when you took this reading. Consult a local weather station, weather.com, or other source, to find the recorded wind speed for that location at that time. Collect many readings at different times and on different days.

Date/Time/Location	Spins per Minute	Official Wind Speed Recorded
Sept. 1/1:30/San Jose, CA	48	10 mph

Compare how your data changes, and how the official data changes. Is your instrument accurate, and reliable?
Can you improve your instrument? How?

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Project/Unit: Design a Weather Instrument Lesson: Design Challenge, Test

Anemometer (protractor style)

How far is the wind moving your instrument? Record the anemometer reading, where, and when you took this reading. Consult a local weather station, weather.com, or other source, to find the recorded wind speed for that location at that time. Collect many readings at different times and on different days.

Date/Time/Location	Anemometer Reading	Official Wind Speed Recorded
Sept. 1/1:30/San Jose, CA	80°	10 mph

Compare how your data changes, and how the official data changes. Is your instrument accurate, and reliable?
Can you improve your instrument? How?

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Barometer

How is the air pressure affecting your weather instrument? Record the barometer reading, where, and when you took this reading. Consult a local weather station, weather.com, or other source, to find the recorded barometric pressure for that location at that time. Collect many readings at different times and on different days.

Date/Time/Location	Barometer Reading	Official Pressure Recorded
Sept. 1/1:30/San Jose, CA	1 cm	1029 hPa

Compare how your data changes, and how the official data changes. Is your instrument accurate, and reliable?
Can you improve your instrument? How?

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Weather Vane and/or Wind Sock

What direction is the wind turning your weather instrument? Record the reading, where, and when you took this reading. Consult a local weather station, weather.com, or other source, to find the direction of the wind for that location at that time. Collect many readings at different times and on different days.

Date/Time/Location	Wind Direction	Official Direction Recorded
Sept. 1/1:30/San Jose, CA	South	SW 1mph

Compare how your data changes, and how the official data changes. Is your instrument accurate, and reliable?
Can you improve your instrument? How?

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Thermometer

How is the air temperature affecting your weather instrument? Record the thermometer reading, where, and when you took this reading. Consult a local weather station, weather.com, or other source, to find the recorded temperature for that location at that time. Collect many readings at different times and on different days.

Date/Time/Location	Thermometer Reading	Official Temperature Recorded
Sept. 1/1:30/San Jose, CA	5 cm	62° F

Compare how your data changes, and how the official data changes. Is your instrument accurate, and reliable?
Can you improve your instrument? How?

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Project/Unit: Design a Weather Instrument Lesson: Design Challenge, Test

Rain Gauge

How much precipitation is collected by your weather instrument? Record the reading, where, and when you took this reading. Consult a local weather station, weather.com, or other source, to find the recorded barometric pressure for that location at that time. Collect many readings at different times and on different days.

Date/Time/Location	Rain Gauge Reading	Official Precipitation Recorded
Sept. 1/1:30/San Jose, CA	2 cm	.5"

Compare how your data changes, and how the official data changes. Is your instrument accurate, and reliable?
Can you improve your instrument? How?