

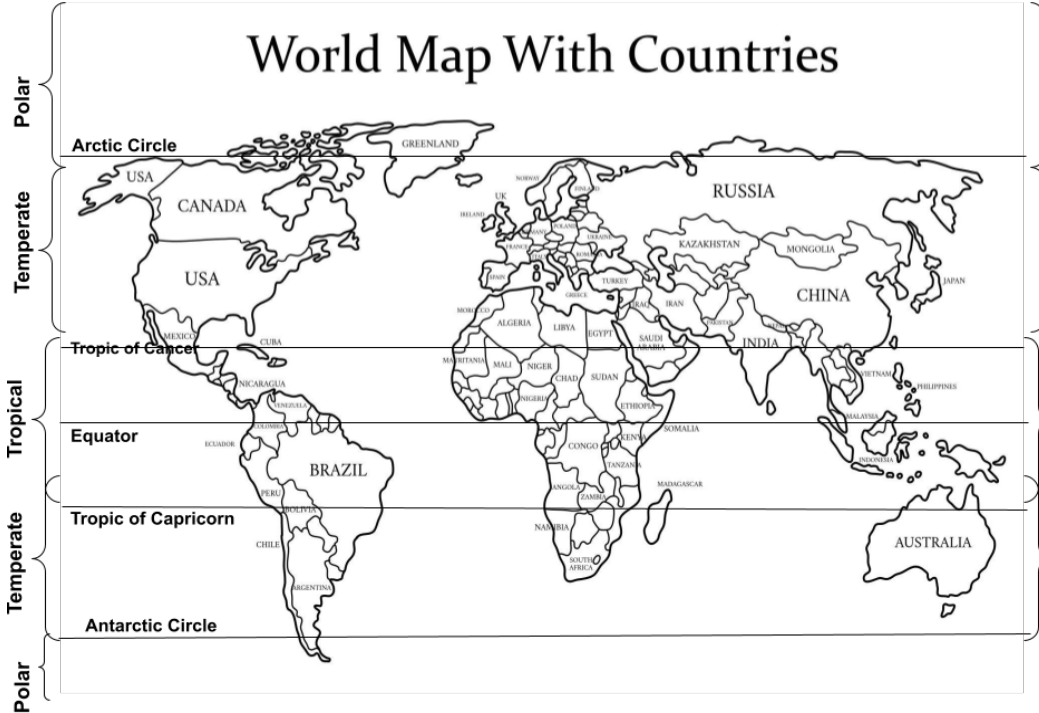


Alternative Method of Instruction  
Middle School – 6<sup>th</sup> Grade  
Day 1 – The Snow Day

Name: \_\_\_\_\_

## SCIENCE – 6<sup>TH</sup> GRADE

Name: \_\_\_\_\_



### Directions:

Using the map, identify three countries in each of the three climate zones. Then identify one human adaptation that humans make to be more successful in each of the three climate zones.

### Example:

*Humans wear heavy coats in polar climates to help them stay warm in frigid temperatures.*

*Climate refers to a pattern of precipitation and temperature over time. In general, the climate of an area is determined by its location on the Earth's surface and the air masses associated with the particular area. The Earth has three main climate zones: tropical, temperate, and polar.*

**Tropical:** This climate zone is near the equator, between the tropics of Cancer and Capricorn. The average temperature in the coldest month is 64°F. This is warmer than the average temperature of the warmest month in the polar zone.

**Temperate:** These climate zones are located between the Arctic Circle and the Tropic of Cancer and the Antarctic Circle and the Tropic of Capricorn. In temperate zones, the weather is affected by both warm and cold air masses at different times during the year, so the weather and temperature changes with the seasons.

**Polar:** These climate zones are located at the North and South poles. It is an area found between the North Pole and the Arctic Circle, and the South Pole and the Antarctic Circle. The warmest months average less than 50 °F.. In tropical and polar climates, the weather is consistent throughout the year.

	Temperate	Temperate	Polar
<i>Country 1</i>			
<i>Country 2</i>			
<i>Country 3</i>			
<i>Adaptation</i>			

## SOCIAL STUDIES – 6<sup>TH</sup> GRADE

Name: \_\_\_\_\_

This activity will help students understand the impact of geography on weather patterns. Please read the information below and complete all of the activities on the following pages. This activity focuses on a snow storm that originates in California and moves across the western region of the United States.

### As the storm moved east, why did it snow in some areas but not others?

Over a few days, the cold front and the low pressure center moved. From February 20 to 22, the storm moved gradually from California to Nevada. Then, on February 23, the storm moved more quickly to the east and south. In the middle of the country, temperatures were cold enough for snow.



(continued on the next page)

## STEP 1: Map the snowfall data.

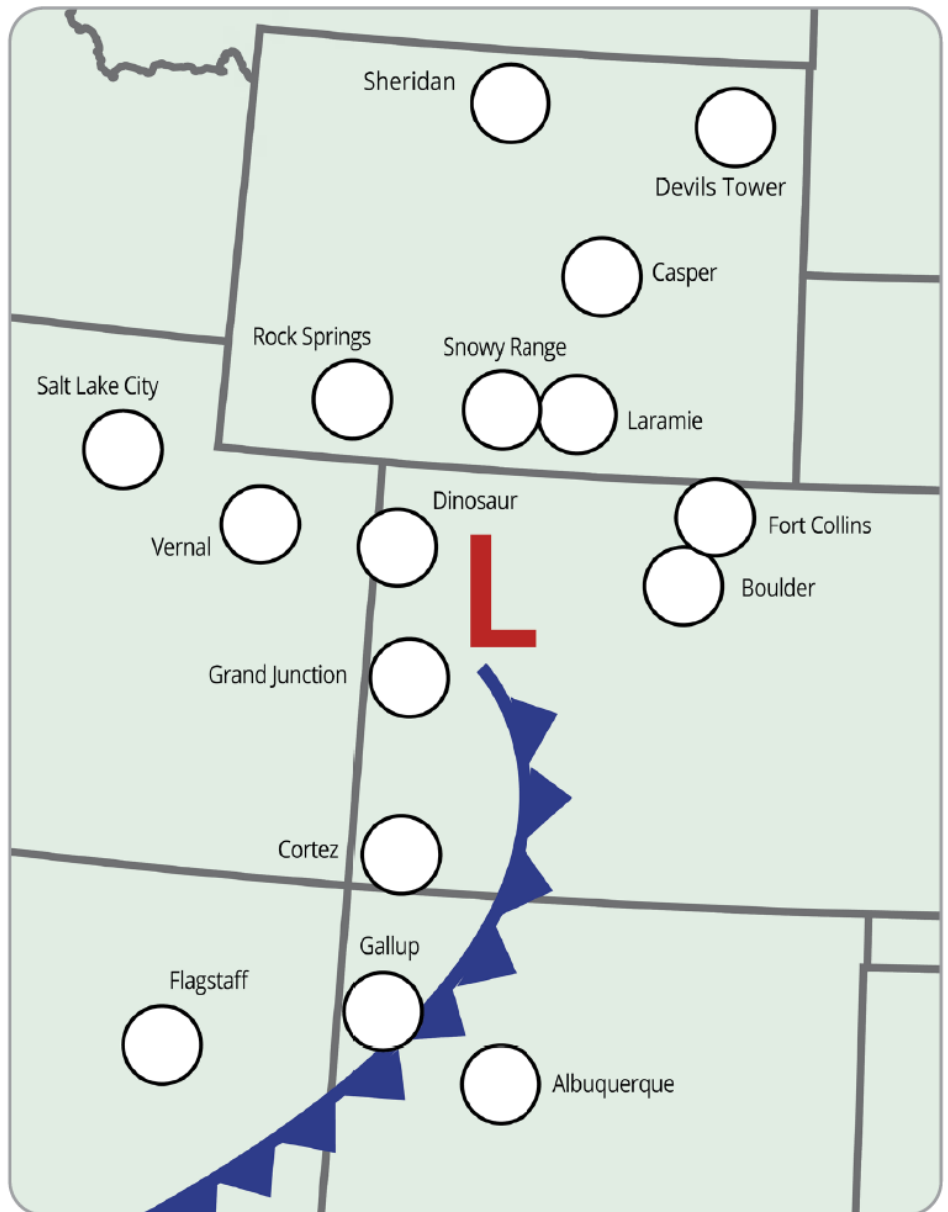
Below is the snowfall report for the communities shown on the map.

1. Locate the communities on the map and **write the snowfall** in the circles.



**SNOWFALL: FEBRUARY 23, 2017**

LOCATION	SNOW (cm)
Rock Springs, WY	45.7
Laramie, WY	7.6
Snowy Range, WY	61.0
Sheridan, WY	1.3
Devils Tower, WY	0
Casper, WY	13.7
Dinosaur, CO	19.1
Grand Junction, CO	0
Fort Collins, CO	3.8
Boulder, CO	1.3
Cortez, CO	0
Flagstaff, AZ	0
Salt Lake City, UT	8.6
Vernal, UT	17.8
Gallup, NM	0
Albuquerque, NM	0



the center of an  
area of low  
pressure



cold front



snow

## STEP 2: Where might schools close?

Schools may close if there is heavy snowfall.

Locate where you think schools closed because of snow. **Color these locations with a bright color** on the map so you can easily see where the most snow occurred.

### STEP 3: Look for a trend in the snowfall.

Refer to the map of snowfall on the previous page to answer the questions below.

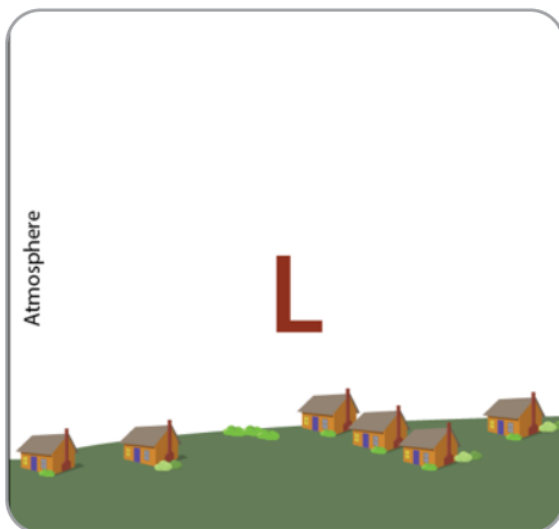
1. What do you notice about the location of communities with the most snowfall? Where did the most snow fall with respect to the front and area of low pressure?
2. Why do you think this area received more snow?

### STEP 4: Why didn't it snow everywhere?

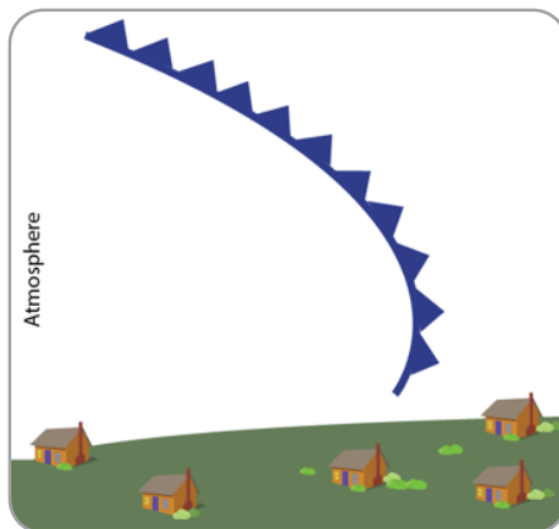
There are two things that a storm needs to cause precipitation:

1. Air that is rising and cooling and
2. Enough moisture in the air to create clouds and precipitation.

1. **Draw a cross section** that shows how air is moving and where clouds are forming at an area of low pressure and at a cold front using models you developed as a class.



How air is moving and where clouds are forming **at an area of low pressure**



How air is moving and where clouds are forming **at a cold front**

2. Notice where there is low pressure and where the front is on the snowfall map. Remember that the storm came from the west, so it moved over the areas on the west side of the map before it got to this location.
  - **Circle locations on the snowfall map** where there was little or no snow.
  - Why do you think these locations didn't get much/any snow?
3. **Name the locations** that you think are too far from the storm to get much snow.

**Moisture:** When it was on the West Coast, this storm was full of moisture, which is what caused so much rain and snow. Is it still full of moisture? The amount of moisture in the air is measured as humidity. On the following page is the average humidity data for the communities shown on the map.

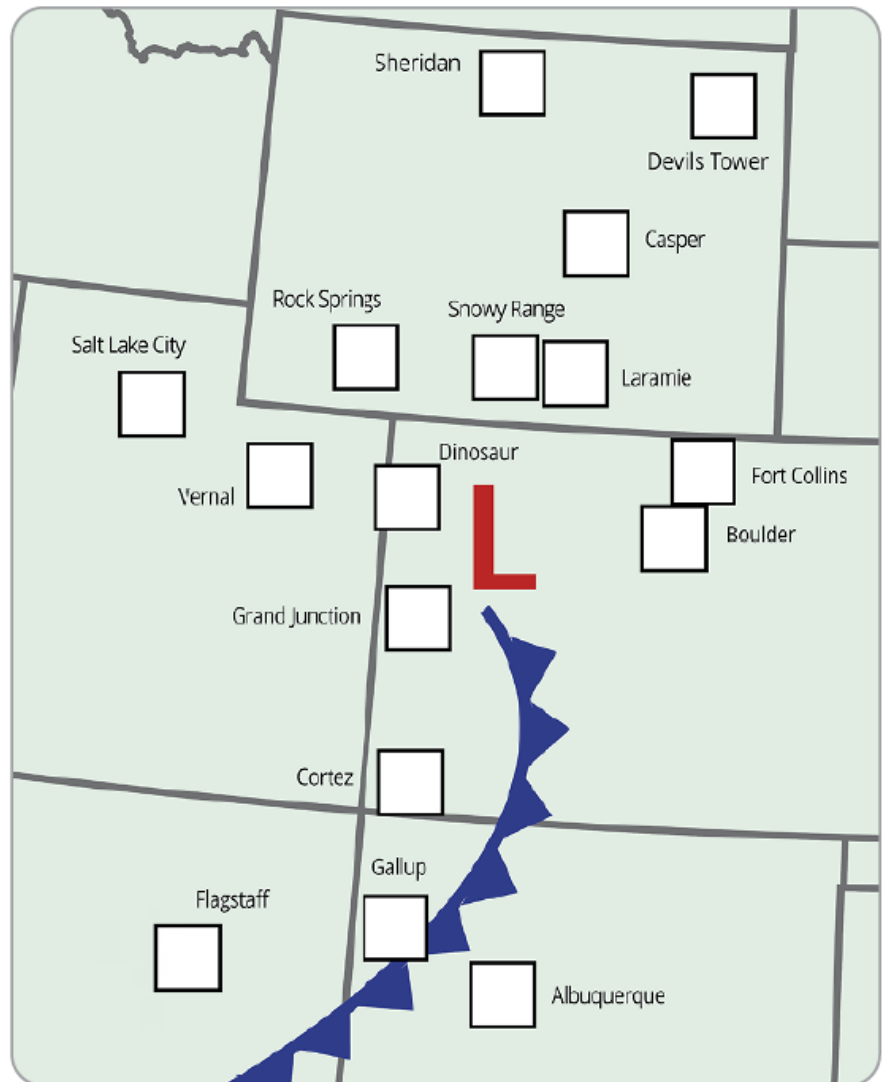


Use these directions below to create the humidity map.

1. The humidity measurements in the table are from near the ground, not up in the clouds, but they can help us estimate how much moisture is in the air. Locate the communities on the map and **write the humidity** in the squares using a different color than the snowfall measurements.
2. **Color code** the locations that had an average humidity under 70%. These locations are less likely to get precipitation. **Choose another color** for the locations with humidity over 70%. These locations are more likely to get precipitation.
3. Name the locations that you think didn't get much precipitation because the air didn't have enough moisture.

LOCATION	AVERAGE HUMIDITY (%)
Rock Springs, WY	81
Laramie, WY	77
Snowy Range, WY	77
Sheridan, WY	84
Devils Tower, WY	88
Casper, WY	92
Dinosaur, CO	90
Grand Junction, CO	62
Fort Collins, CO	85
Boulder, CO	85
Cortez, CO	58
Flagstaff, AZ	56
Salt Lake City, UT	81
Vernal, UT	90
Gallup, NM	43
Albuquerque, NM	33

**% HUMIDITY: FEBRUARY 23, 2017**



**KEY:**



the center of an area of low pressure

cold front



humidity



humidity under 70%  
(choose a color)



humidity over 70%  
(choose a color)

## ENGLISH LANGUAGE ARTS – 6<sup>TH</sup> GRADE

Name: \_\_\_\_\_

# Snow Day Story

Directions: Write a ½ page fictional story about a great snow day. You can write in 1st or 3rd person. Make sure you use descriptive language.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## MATH – 6<sup>TH</sup> GRADE

Name: \_\_\_\_\_

Please use the reference sheet on the next page to help with answering the questions and problems below about metric measurements.

**Write the correct abbreviation for each metric unit.**

1) Kilogram \_\_\_\_\_

4) Milliliter \_\_\_\_\_

7) Kilometer \_\_\_\_\_

2) Meter \_\_\_\_\_

5) Millimeter \_\_\_\_\_

8) Centimeter \_\_\_\_\_

3) Gram \_\_\_\_\_

6) Liter \_\_\_\_\_

9) Milligram \_\_\_\_\_

**Try these conversions, using the ladder method.**

1) 2000 mg = \_\_\_\_\_ g

6) 5 L = \_\_\_\_\_ mL

11) 16 cm = \_\_\_\_\_ mm

2) 104 km = \_\_\_\_\_ m

7) 198 g = \_\_\_\_\_ kg

12) 2500 m = \_\_\_\_\_ km

3) 480 cm = \_\_\_\_\_ m

8) 75 mL = \_\_\_\_\_ L

13) 65 g = \_\_\_\_\_ mg

4) 5.6 kg = \_\_\_\_\_ g

9) 50 cm = \_\_\_\_\_ m

14) 6.3 cm = \_\_\_\_\_ mm

5) 8 mm = \_\_\_\_\_ cm

10) 5.6 m = \_\_\_\_\_ cm

15) 120 mg = \_\_\_\_\_ g

**Compare using <, >, or =.**

16) 63 cm ○ 6 m

17) 5 g ○ 508 mg

18) 1,500 mL ○ 1.5 L

19) 536 cm ○ 53.6 dm

20) 43 mg ○ 5 g

21) 3.6 m ○ 36 cm



# METRIC UNITS

**WEIGHT**  
gram



**LENGTH**  
meter



**CAPACITY**  
liter



Kilo-

means  
1,000

hecto-

means

100

deca-

means

10

**BASE  
UNIT**

means

1

deci-

means

0.1

$\frac{1}{10}$

centi-

means

0.01

$\frac{1}{100}$

milli-

means

0.001

$\frac{1}{1000}$

Each jump "up" the ladder is ten times more than the step before it. Each step "down" is one tenth of the step before it.

## FOR EXAMPLE...

1 m	=	1,000	mm
1 g	=	100	cg
1 L	=	10	dL
1 m	=	0.001	km

## TO CONVERT:

MOVE THE DECIMAL THE SAME DIRECTION AND NUMBER OF SPACES YOU COUNT ON THE "STEPS" FROM THE STARTING UNIT TO THE END UNIT.

$$15.2 \text{ mg} = .152 \text{ dg}$$

$$8 \text{ m} = 800. \text{ cm}$$

## PHYSICAL EDUCATION – 6<sup>TH</sup> GRADE

Name: \_\_\_\_\_

### Do You Want to Build a Snowman?

**Directions:** Choose Option 1, Option 2 or Option 3 to complete.

**Option 1:** Shovel the driveway for your family or a neighbor. Snow shoveling is a cardiovascular activity that raises your heart rate. If you have a family member or neighbor who needs extra help please take a photo or have the person who's driveway you shoveled sign this paper below.

**Sign Here:** \_\_\_\_\_

**Option 2:** Build a snowman outside. Get creative and build the best snowman you can, the bigger the better! Please take a photo of yourself next to your snowman to receive credit. If you cannot take a photo of your snowman please record the height and width of your snowman below.

**Snowman height:** \_\_\_\_\_ **Snowman width:** \_\_\_\_\_

**Option 3:** If there is no snow outside or you are unable to go outside use items around the house to create an obstacle course. Your obstacle course can include exercises to complete at different points of the course, clues around the house, things around your home to jump over (safely). Use what you have and get creative!!! Either take a photo of your obstacle course or use the space below to sketch a picture or describe each part of your obstacle course.

**Obstacle Course Sketch:**



## READING – 6<sup>TH</sup> GRADE

Name: \_\_\_\_\_

For each AMI snow day, students should spend 20 minutes reading. Please use the space below to log your reading.

Title: \_\_\_\_\_

Format (mark one)

\_\_\_\_\_ Book

\_\_\_\_\_ Magazine

\_\_\_\_\_ eBook

\_\_\_\_\_ Other: \_\_\_\_\_

Minutes spent reading: \_\_\_\_\_

## ELECTIVES – 6<sup>TH</sup> GRADE

**Student Name:** \_\_\_\_\_

**Directions:** Choose **ONE** activity from this list of options to complete for each day of AMI work. Please have an adult initial any activities that you complete for AMI days.

<b>Art</b>	Draw or paint a still life picture of something in your home.  _____ <b>initials</b>  _____ <b>date</b>	Create a short movie about what you like to do on a snow day  _____ <b>Initials</b>  _____ <b>date</b>
<b>Music</b>	Practice your band instrument.  _____ <b>initials</b>  _____ <b>date</b>	Listen to your favorite song and sing along, or . . .  Compose an original song.  _____ <b>Initials</b>  _____ <b>date</b>
<b>Industrial Tech PLTW EbD</b>	Repair something in your home, or . . .  Build a fort, either inside your home or with snow outside.  _____ <b>initials</b>  _____ <b>date</b>	Create a Rube Goldberg machine, or . . .  Build a bridge out of something in your home.  _____ <b>Initials</b>  _____ <b>date</b>
<b>Drama</b>	Act our or record a skit with a family member or friend.  _____ <b>initials</b>  _____ <b>date</b>	Watch a comedy movie or musical.  _____ <b>Initials</b>  _____ <b>date</b>
<b>Family and Consumer Science</b>	Ask your adults about budgeting tips.  _____ <b>initials</b>  _____ <b>date</b>	Make yourself a snack using or creating a recipe.  _____ <b>Initials</b>  _____ <b>date</b>
<b>World Language / Cultures</b>	Find something in your home from another country and write or tell someone about it.  _____ <b>initials</b>  _____ <b>date</b>	List your favorite holiday traditions and ask family members or acquaintances about their origins.  _____ <b>Initials</b>  _____ <b>date</b>