

# WEATHER vs. CLIMATE *Dice Game*

## *Wildlife Champions at Home Science Experiment*

*3-ESS2-2: Obtain and combine information to describe climates in different regions of the world.*

### What is the difference?

**Weather** is the state of the atmosphere, or air, in a specific place at one point in time. When describing weather, someone might include elements such as temperature (hot/cold), precipitation (rain/snow/hail), humidity (amount of water in the air) and wind speed. Climate is similar to weather with one big difference: time. **Climate** is the state of the atmosphere in a specific place over a very long period of time. While the weather at your home changes day-to-day or even hour-by-hour, the climate where you live does not. For example, the weather today here in Tacoma might be warm and sunny without a cloud in sight; but the climate is cold and rainy because that is what the weather is *usually* like here in Tacoma this time of year.

### Directions

Create an imaginary town and roll a die to discover the weather and climate of your town.

**Materials:** One die (*note: two or more are "dice," just one is a "die"*), one pencil, one *Weather vs. Climate Game Board* (below).

Step 1. Print the *Weather vs. Climate Game Board* page below or use a pencil to draw the game board onto a piece of paper.

Step 2. Weather and climate can only be measured in a single place because weather changes at different times and rates all over the world. Today, we will observe the weather of an imaginary town! At the top of the game board, write the name of your imaginary town.

Step 2. Roll a die to find out today's weather. Use the game board to figure out the type of weather each number stands for.

Step 3. Draw a tally mark next to that number in the second column of the table titled *Tally*. If you do not know how to count using tally marks, check out the picture below.

Step 4. Continue rolling the die and marking tallies until you have completed 30 rolls. Each roll will give you the weather for one day. At the end of 30 rolls, you will have observed the weather in your town over the course of a month.



# Nature at Home

Step 5. Record the total number of each kind of weather in the final column titled *Total after 30 days*.

Step 6. Figure out which kind of weather occurred most frequently over the month. That's the climate! Draw a picture of your imaginary town and its climate at the bottom of the page.

#### How to count using tally marks:

1		6	
2		7	
3		8	
4		9	
5		10	

## Reflection

1. What is the weather today where you live?
2. Does the weather where you live change every day? Every hour? Every minute?
3. What is the climate like where you live?
4. Does your local climate vary depending on the season?

## Helpful Links

[https://www.youtube.com/watch?v=XirAUvS\\_29I](https://www.youtube.com/watch?v=XirAUvS_29I)

<https://www.youtube.com/watch?v=En0MFixNi5c>









# Nature at Home

# WEATHER VS. CLIMATE *Game Board*

My imaginary town is called: \_\_\_\_\_.

**What's the weather?** Roll the die to find out today's weather. Draw a tally mark next to that number in the table below. Continue rolling the die and marking tallies until you have completed 30 rolls (30 days). Then, record the total number of each weather event in the final column.

	<b>Weather</b>	<b>Tally</b>	<b>Total after 30 days</b>
	<b>Sunny</b>		
	<b>Rainy</b>		
	<b>Hot</b>		
	<b>Cold</b>		
	<b>Humid</b>		
	<b>Dry</b>		

**What's the climate?** Take a look at your final column. What was the weather like on most days? \_\_\_\_\_.

Draw a picture of the climate in your imaginary town below!