



### **Wood Frog**

The wood frog has a black stripe around its eyes and usually is about 2-3 inches in size. They can freeze themselves over the winter and can thaw themselves in the spring. They live about three years. Wood frogs eat small insects, worms, slugs, and snails. The frog's predators are large beetles, turtles, foxes, birds, and other animals. They can live comfortably in temperatures below 90 degrees Fahrenheit.



### **Fairy Shrimp**

The fairy shrimp are yellow, white or light grey color, and are usually 10-44 millimeters long. These animals eat algae and bacteria. The predators of this animal are beetles, tadpoles, and other small insects. They swim upside down. The shrimp can live for a few months but have a short life due to predators. They live comfortably in temperatures below 84 degrees Fahrenheit.



### **Predaceous Diving Beetle**

The predaceous diving beetle are usually black with yellow stripes on the sides and are about an inch long. These beetles eat tadpoles, fairy shrimp, sticklebacks, and other insects and small animals. Larger fish are predators of the beetle, but these predators are not found in the small ponds. They can live comfortably in temperatures lower than 100 degrees Fahrenheit because higher temperatures cause evaporation of their homes.



### **Nine Spined Stickleback**

The nine spined stickleback is a very small silvery, black and yellow fish that is about half an inch long. These fish have stickles on their backs (like spikes). These fish eat water fleas and other small animals. Larger animals like frogs, fish, and beetles are predators of the sticklebacks. There are many types of sticklebacks in different sizes. They can live in most warm temperatures, but temperatures lower than 100 degrees Fahrenheit are better because there is less evaporation.

Photo Credits: Mabel Rivera and Churchill Northern Studies Centre

**Wood Frog**

Prey: \_\_\_\_\_

\_\_\_\_\_

Predators: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comfortable Living Temperature: \_\_\_\_\_

Interesting Fact: \_\_\_\_\_

\_\_\_\_\_

**Fairy Shrimp**

Prey: \_\_\_\_\_

\_\_\_\_\_

Predators: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comfortable Living Temperature: \_\_\_\_\_

Interesting Fact: \_\_\_\_\_

\_\_\_\_\_

### Predaceous Diving Beetle

Prey: \_\_\_\_\_

\_\_\_\_\_

Predators: \_\_\_\_\_

\_\_\_\_\_

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Comfortable Living Temperature: \_\_\_\_\_

Interesting Fact: \_\_\_\_\_

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**Nine Spined Stickleback**

Prey: \_\_\_\_\_

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Predators: \_\_\_\_\_

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Comfortable Living Temperature:

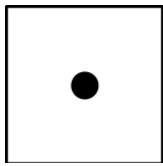
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Interesting Fact: \_\_\_\_\_

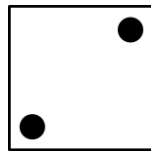
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Name(s): \_\_\_\_\_ **Math Activity**

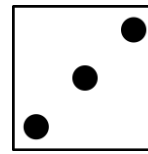
Your starting temperature is **77 degrees Fahrenheit** for the summer temperature. Roll one dice 9 more times and add or subtract the amount of degrees in the chart.



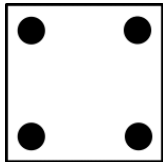
= 0 degrees



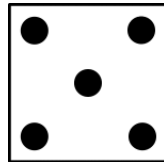
= +2 degrees



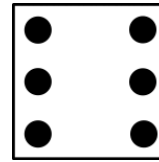
= -1 degree



= +1 degree



= -2 degrees



= +3 degrees

Example: First Roll <u>  5  </u>	77 +/- <u>  2  </u> = <u>  75  </u>
Second Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Third Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Fourth Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Fifth Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Sixth Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Seventh Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Eighth Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Ninth Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>
Tenth Roll <u>          </u>	<u>          </u> +/- <u>          </u> = <u>          </u>

**Final Temperature after ten years:** \_\_\_\_\_

**Line Plot:** (use the whole class data)

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

**Check for Understanding**

Describe what would happen in the following situation to different animals:

1. The temperatures have reached 95 degrees Fahrenheit for the summer. Describe what would happen to the Predaceous Diving Beetle during this summer season. What would happen to their predators and prey?

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2. The temperature is now 90 degrees. How would this be a problem for the Wood Frog?

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## Grading Rubric

Student \_\_\_\_\_

1	2	3	4
The student doesn't really answer the question and cannot make links between the temperature and the animal referenced.	The student's answer is incomplete and only references one fact as evidence, or a reason. Also the answer may not be reasonable or may not reference a different animal.	The student provides good and reasonable outcome for the temperature information. At least a two reasons and/or explanations are referenced and contain information about more than one animal.	The student comfortably makes connections between two or more animals and the temperature changes. The explanation clearly states the successes of some animals and hardships of others.

Your Score \_\_\_\_\_ Comments:

## Grading Rubric

Student \_\_\_\_\_

1	2	3	4
The student doesn't really answer the question and cannot make links between the temperature and the animal referenced.	The student's answer is incomplete and only references one fact as evidence, or a reason. Also the answer may not be reasonable or may not reference a different animal.	The student provides good and reasonable outcome for the temperature information. At least a two reasons and/or explanations are referenced and contain information about more than one animal.	The student comfortably makes connections between two or more animals and the temperature changes. The explanation clearly states the successes of some animals and hardships of others.

Your Score \_\_\_\_\_ Comments: