Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ectotherm ER: Frogs Under the Weather  
Analysis**

1. **Model Frog Temperature Profile**

Our ibutton data reflects frog temperatures collected over a 24 hour period. A graph of this information would look similar to the following:

1. **Create Your Own Histogram**

Use the ibutton data to create a histogram showing the number of times a frog reaches a certain body temperature range.

**Step 1:** Complete the following chart to tally how many times the frog’s body temperature was within the given ranges.

|  |  |  |  |
| --- | --- | --- | --- |
| **Histogram Tally Chart** | | | |
| Bin | Range | Sun Tally | Shade Tally |
| 1 | 0 - 4 ˚C |  |  |
| 2 | 4.1 - 8 ˚C |  |  |
| 3 | 8.1 - 12 ˚C |  |  |
| 4 | 12.1 - 16 ˚C |  |  |
| 5 | 16.1 - 20 ˚C |  |  |
| 6 | 20.1 - 24 ˚C |  |  |
| 7 | 24.1 - 28 ˚C |  |  |
| 8 | 28.1 - 32 ˚C |  |  |
| 9 | 32.1 - 36 ˚C |  |  |
| 10 | 36.1 - 40 ˚C |  |  |

**Step 2:** Now use the Histogram Tally Chart to create a histogram on a separate sheet provided by your teacher.

**Step 3:** Use your histogram to answer the following questions.

1. What was the range of body temperatures that the ‘sun’ frog experienced? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How did the range of body temperatures that the ‘shade’ frog experienced compare to those of the ‘sun’ frog ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_