



Draw a King Rail!

STUDENT ACTIVITY INSTRUCTIONS

Materials Needed:

- Pencil
- Paper or Notebook
- Ruler
- Field Guide or Pictures of King Rail
- Coloring Utensils (Colored pencils are recommended, but also could use crayons).
- Device to watch “How to Draw a Long-billed Curlew” by David Sibley

Introduction (Read before doing the activity)

Drawing creates a deeper connection with the subject of your drawing by making you look a little bit closer as well as take a new perspective. The simple act of drawing can change the way you look at the world and the way you understand nature and the birds around you. Learning to draw birds is a demonstration of what you know about a bird and will also reveal what you don't yet know. With practice, you can fill those gaps in your knowledge. Therefore, by simply drawing a King Rail we can get to know it even better.

Activity Instructions:

1. Gather all the materials listed above.
2. Watch and follow along with this video by David Sibley (Creator of Sibley Bird Field Guides) about his process of drawing a Long-billed Curlew. Link:
<https://vimeo.com/420734288>
 - a. This should help give you an idea of how to start drawing birds.
 - b. No worries if you can't draw as well as this famous bird artist!
 - c. If you would prefer written instructions on how to draw birds, you can find them here: <https://www.audubon.org/magazine/summer-2020/learn-draw-birds-david-sibley>
3. Before you begin drawing your own King Rail, check your field guide (online or book copy) for the measurements of a King Rail to make your drawing as accurate to size as possible.
 - a. Attempting to draw the rail as accurately to size as possible will come in handy at the end of the activity when we do some comparison measurements.
 - b. The measurement of size you will want to look at is Length (measured from bill tip to tail tip).
 - c. It may help to draw a ruler on the edge of your drawing page.

4. Now it's time to begin drawing your King Rail! Use a field guide or picture to draw as precisely as possible.
5. Color in your King Rail using the field guide or picture as a reference for the color pattern to be as detailed as possible. Colored pencils are recommended, but crayons will also work.
6. Now that you have finished drawing your King Rail, it is time to compare the size of the bird you drew with the size of the actual bird. First, measure your bird using your ruler in inches. Measure from the tip of the bird's bill to the tip of the bird's tail. Record the measurement on the page including label and unit.
7. How does this measurement compare to the length in inches written in the field guide? With what percent accuracy did you draw your bird?
 - a. How to calculate percent accuracy:
 - i. Subtract your measurement of your bird from the measurement written in the field guide. This is your deviation.
 - ii. Divide this number by 100.
 - iii. Equation: $\% \text{accuracy} = (\text{Drawing measurement} - \text{Field Guide measurement}) / 100$
 - b. Record this number on your page with label.
8. Let's get a more accurate measurement. How do we do this? By measuring our drawing using smaller units, we can get a more precise measurement of our bird. Measure your King Rail's length in millimeters (mm).
9. Compare this number to the listed measurement in your field guide. [Hint: You may have to do some conversions to figure this out].
 - a. If the King Rail's length is measured in inches, you can compare to millimeters by multiplying the number in inches by 25.4. (1 inches equals 25.4 millimeters).
 - b. If the King Rail's length is measured in centimeters, you can compare to millimeters by multiplying the number in centimeters by 10. (1 centimeter equals 10 millimeters).
10. Once you have converted the field guide measurement into millimeters, you are now ready to compare more accurately. Repeat the percent accuracy calculation in step 7.
 - a. Record this number on your page with a label.
11. Congrats! You have finished the activity.

Conclusion

Drawing birds encourages us to look more closely and see the bird in a way we may not have done if we were simply watching the bird outside. By drawing the King Rail you have learned a little bit more about it as a species and a little bit more about bird measurement!

