

## Paper Trumpeter Swan

### Objectives

Students will learn about swan biology and life history traits, how to identify Trumpeter Swans, and learn about swan conservation efforts in the Blackfoot Watershed. They will get a sense of the enormous size of these birds that is difficult to develop without being very close to a live swan.

### Method

Students watch a narrated video slide show to learn the basics about Trumpeter Swan natural history and conservation. They create a life-sized paper model of a swan.

### Materials

- Swan Introductory Video
- 17 sheets of 8.5 x 11" paper.
- Pencils and black markers
- Scissors
- Clear tape

### Background Information

The Trumpeter Swan is the largest species of native North American waterfowl. There are three species of swans in North America. The Trumpeter Swan (*Cygnus buccinator*) and Tundra Swan (*C. columbianus*) are indigenous, or native, while the Mute Swan (*Cygnus olor*) is a Eurasian species that has been introduced and now breeds in the wild in some areas. All three are very large all-white birds, although Tundra Swans are significantly smaller than the others. The native Snow Goose is the only other large white waterfowl, and it is much smaller than any of the swan species.

Species	Wing Span (inches)	Weight (pounds)	Length (inches)
Trumpeter	84-96	21-30	60
Tundra	72-80	13-18	52
Mute	82-94	20-30	57
Snow Goose	36-44	4-6	27

As you can see from the size chart, Trumpeter Swans are truly enormous birds, with wingspans of 7-8 feet and 5 feet in length from head to toe.

## **Procedure**

*A. Basic version* (best for very young children or those working remotely):

1. Tell your students they will create a paper rectangle that is the same size as the outstretched wings of a Trumpeter Swan.
2. Have your students create an array of an 8 x 2 rectangle using 16 sheets of 8.5" x 11" paper. They should place each sheet lengthwise so that the long side of each sheet is horizontal. If all their sheets are touching, the rectangle will be the approximate size of the outstretched wings of a Trumpeter Swan!

*B. Advanced version:*

Tell your students they are going to recreate a life-size Trumpeter Swan using paper. They should take the following steps (when they are finished, their papers should be arranged to look like the illustration on the following page):

1. Lay 8 sheets of printer or notebook paper (8.5" x 11") in a row, narrow end to narrow end, to create a continuous line 88" long. Tape each paper to the one next to it.
2. Lay 6 sheets end to end below the first row, so that one sheet sticks out on each end. This row will be 66" long.
3. Find the center of the top row. Place a sheet of paper above the center of this row, which will be where two sheets come together. Tape another sheet above that sheet, and one more sheet of paper above that.
4. Find the center of the bottom row. Place a sheet of paper below the center, and one more below that.
5. This grid of papers will be the approximate size of an outstretched swan, wingtip to wingtip and head to tail.
6. Students can now draw a swan outline on the sheets. They can use a photo or the Swan in a Grid as a reference. Cut out the swan outline and tape it onto the wall. See the example on the next page.

## **Extension**

- Create a Tundra Swan and/or Snow Goose life-sized drawing the same way based on the measurements in the table, and compare the sizes and shapes of the models.

