



## Operation Animal Conservation

Zoos play a considerable role in saving many animals from near extinction. With this freebie, you'll learn about the Red Panda (or any endangered animal you choose) and design masks that represent and raise awareness about the animal's conservation status. Based on activities found in *Unleash Your Wildside*, this STEAM activity develops learners' knowledge and empathy for wildlife.



### HANDS-ON STEM EDUCATION

For over 30 years, PCS Edventures has inspired students to develop a passion for Science, Technology, Engineering and Mathematics (STEM), focusing our efforts on making learning and discovery a fun and interactive process for grades K-12.

- Classroom
- After-School
- Home Learning

## Background Information

Have you ever been to a zoo? Zoos often do a wonderful job recreating animals' homes to help us learn how different species look and live in their natural habitats. While many species kept in a zoo are doing just fine out in the wild, not all are as lucky. Some are placed on an endangered species list. Why might this happen? Unfortunately, the number of a particular species left on earth may diminish over time. This can happen if animals are over-hunted, lose their food supply, cannot adjust to climate changes, habitat loss, or other factors often out of animals' control.

Scientists help determine a species' conservation status. This means they identify whether or not a particular type of animal is in danger of no longer existing on earth. They look closest at species considered vulnerable to extinction, endangered, or critically endangered in the hopes of preventing the species from becoming extinct in the wild. While not always a success, zoos work hard to help repopulate and reintroduce endangered species into their natural habitats. **Raising awareness and education is an important part of their efforts. Best of all, it's something everyone can do to help save our endangered animal friends!**

### MATERIALS:

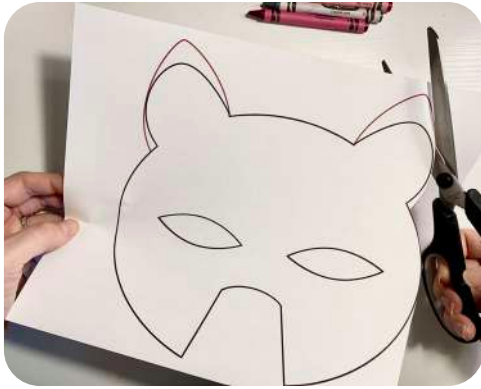
Suggestion: Make a mask ahead of time to show as an example.

- Endangered Animals Fact Sheet (Pre-made Red Panda and/or blank template)
- crayons or colored pencils
- bottles of glue
- templates and craft sticks (one per learner)
- white paper and any other readily available materials (i.e. felt, pipe cleaners, faux fur scraps, etc.)

### DIRECTIONS:



- 1 Read through the red panda Endangered Animal Fact Sheet.



- 2 Using the scissors, cut out the mask. For a red panda mask, cut along the RED line to mimic its pointed ears. If choosing to create a mask for another animal with rounded ears, cut along the black line.



- 3 To cut holes for the eyes, gently fold the eye area and make a cut big enough for the scissors.

Then, unfold the area and use the new entry point to cut out the outline of the eye. It doesn't have to be perfect, just enough to allow learners to see.



- 4 Using crayons or colored pencils, add details to make the mask unique. Learners may want to use white paper or other readily available materials to add additional features.



- 5 Glue the top portion of a craft stick onto the back of the mask to create a handle. Let learners choose where to place the handle.



- 6 Press firmly for five seconds to secure the handle and let it dry for a minute.



- 7 Your mask is ready! See *Extensions* and *Discussion Questions* below for ideas and modifications.

### Discussion Questions:

- What can humans do to help protect the species from extinction? Why is learning about endangered animals and raising awareness about them so important?
- Why is it important to help save animals on the endangered species list?
- Can you think of a tool or technology you could design to help protect the species? What would it do and why?

### Extensions:

- **Enrichment:** Have learners select and research an endangered animal of their choice. **Use the blank Endangered Animal Fact Sheet** template to help get them started.
- **MATH:** According to The Smithsonian's National Zoo and Conservation Biology Institute, "Adult red pandas typically weigh between 8 and 17 pounds (3.6 and 7.7 kilograms) and are 22 to 24.6 inches (56 to 62.5 centimeters) long, plus a tail of 14.6 to 18.6 inches (37 to 47.2 centimeters)."
  - Using this data, what is the total length of the smallest red panda? The biggest?
  - Use a ruler and larger poster paper to draw your own life-size image of a red panda!

- ELA: Create your own Public Service Announcement (PSA) to raise awareness for the endangered species you chose to represent. You might choose to use your mask in a live or recorded performance. Alternatively, create an audio PSA as if you were writing an ad played during a podcast.

**References:**

Red Panda. Smithsonian's National Zoo. (2021, August 11). Retrieved June 12, 2022, from <https://nationalzoo.si.edu/animals/red-panda>

World Wildlife Fund. (n.d.). *Red Panda*. WWF. Retrieved June 12, 2022, from <https://www.worldwildlife.org/species/red-panda>

# Endangered Animal Fact Sheet



Sketch or paste an image of the endangered animal

Species Name: Red Panda

Conservation Status (check one):

- Vulnerable
- Endangered
- Critically Endangered

Primary Threats to Survival (check all the apply):

- Overhunting or overharvesting
- Habitat loss
- Loss of food supply
- Pollution
- Climate Change
- Other

Describe how this animal looks (Physical Characteristics):

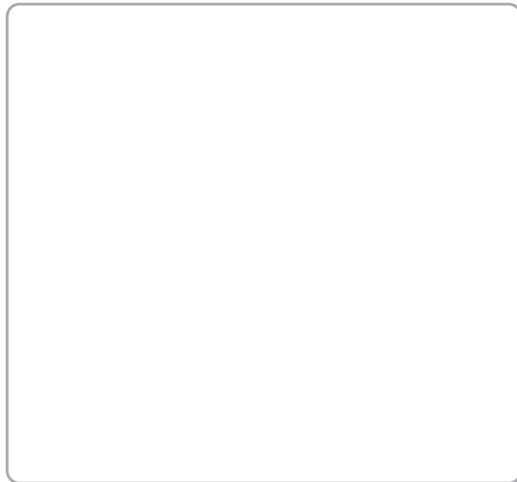
I notice...

- Reddish-brown "tear-marks" surrounding its eyes, corners of the mouth, and head
- White and black fur on its ears and snout
- Black nose
- White whiskers
- Triangularly shaped ears
- Long, bushy tails
- Claws on all feet

Facts to Know:

- 1 Red pandas are skilled tree climbers! They climb trees to escape predators, find shelter and sunbathe.
- 2 Red pandas mostly eat bamboo. The thumb-like bone in their wrist helps them hold the bamboo shoots more easily.
- 3 They may live as long as 23 years!
- 4 Their fur-covered bodies protect them from cold climates and help camouflage them among trees found in their native habitats.
- 5 When it's very cold, red pandas can sleep for long periods, waking every few hours in search of food.

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I notice...

**Facts to Know:**

- 1 .....
- 2 .....
- 3 .....
- 4 .....
- 5 .....

## Featured Products



This STEAM activity is inspired by the activities found in *Unleash Your Wild Side*.



*BrickLAB Zoo* also features hands-on build challenges while exploring animal's many unique adaptations.

Be sure to check out both programs for compelling activities that promote global awareness and get learners wild about STEAM!

For more information, visit [edventures.com/collections](https://edventures.com/collections)  
or contact a *STEM Program Specialist* at (800) 429-3110





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