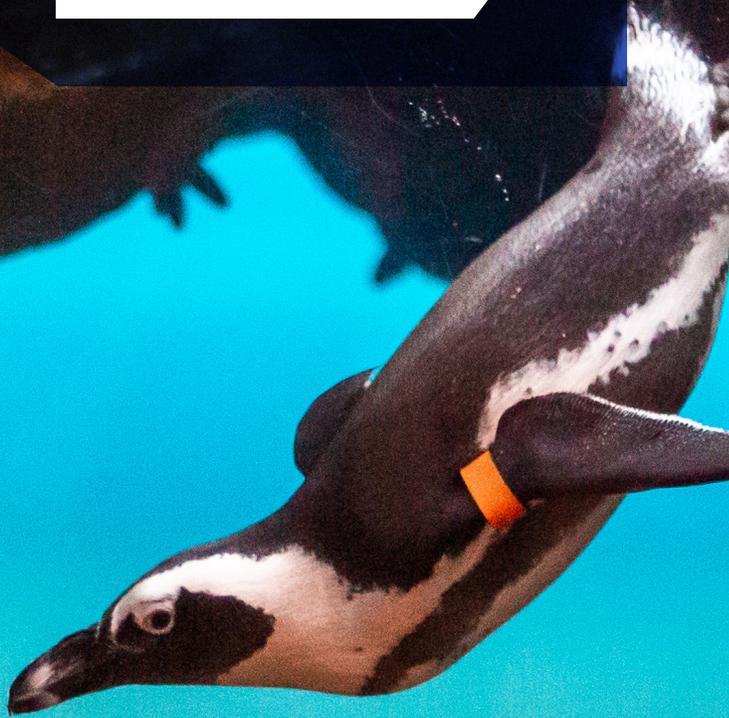


Science @ Home

PENGUINS



Waddle you waiting for? Become a penguin pro with over a dozen hands-on activities created for kids ages 4-8.

Dive into a different penguin theme each day with guided videos, crafts, interactive programs, and live webcams. Kids will activate their inner ornithologist (a scientist who studies birds) and learn all about African penguins—including the ones that call the Academy home!

Please note: While Science @ Home activities are designed to be conducted by kids, some little ones might need adult help with reading instructions and preparing crafts.

Day 1: Penguin Adaptations

30-45 minutes

- » P is for Penguin (video)
- » Penguin braying (video)
- » Underwater penguin webcam (video)
- » Make a paper penguin (craft)

Day 2: Penguin Healthcare

60-90 minutes

- » *Pierre the Penguin* storytime (video)
- » *Pierre the Penguin*—En español (video)
- » Color a penguin (craft)
- » Chick check-up (video)

Day 3: Be a Penguin Scientist

30-60 minutes

- » Peek-a-penguin (activity)
- » Live penguin webcam (video)
- » Name that penguin (activity)
- » Stand-up penguin (craft)

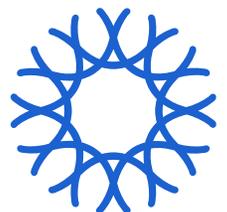
Day 4: Behind the Scenes with Penguins

30-45 minutes

- » Fraction penguin (activity)
- » Feeding time (video)
- » Just hatched (video)

Extension Activities

- » Penguin conservation (video)
- » Breakfast Club with Vikki (video)
- » Sustainable seafood (activity)





Penguin Shapes Craft

Materials

Paper
Scissors
Markers, crayons, or colored pencils
Glue stick

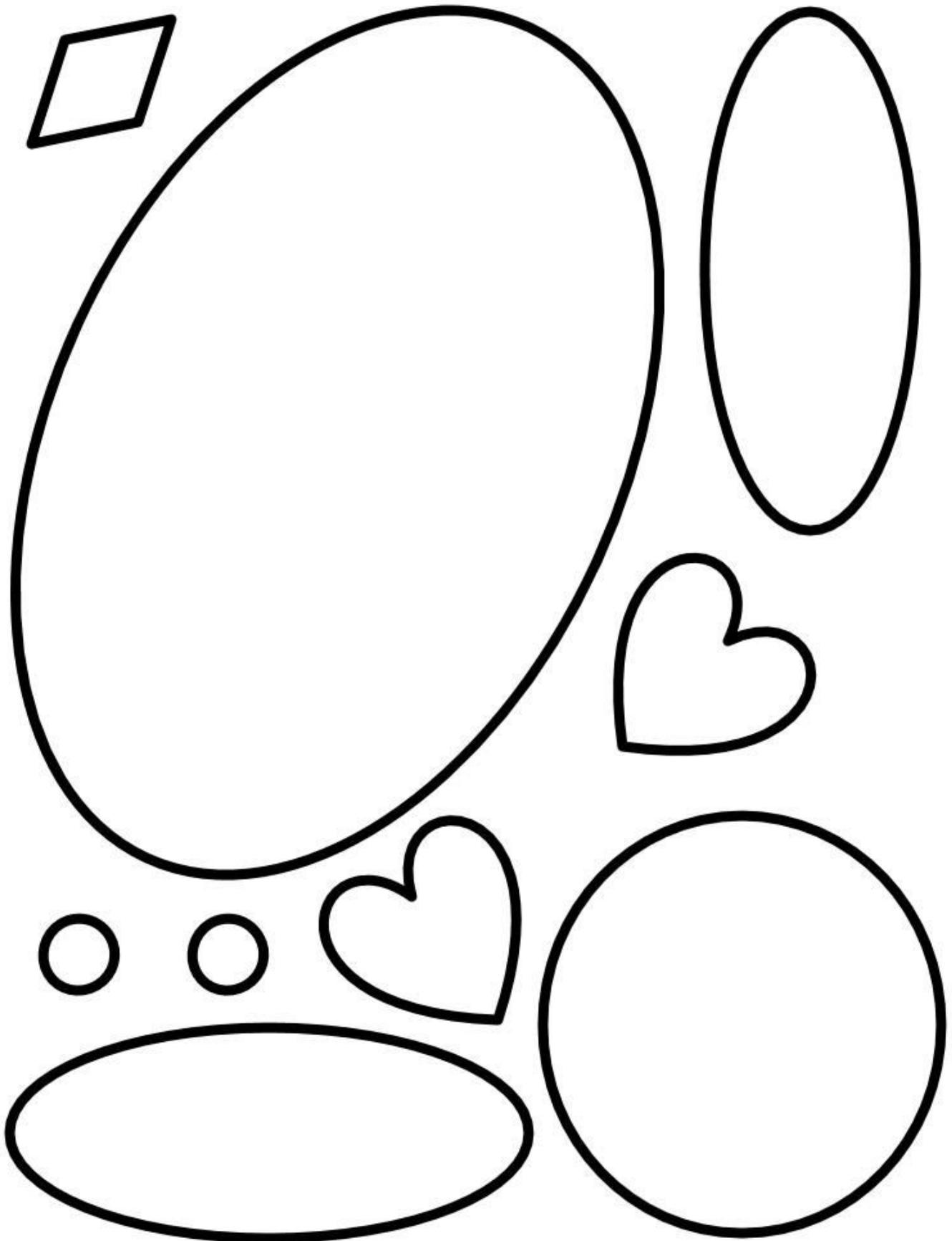
Directions

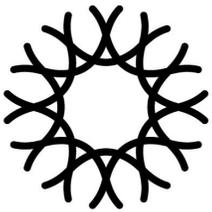
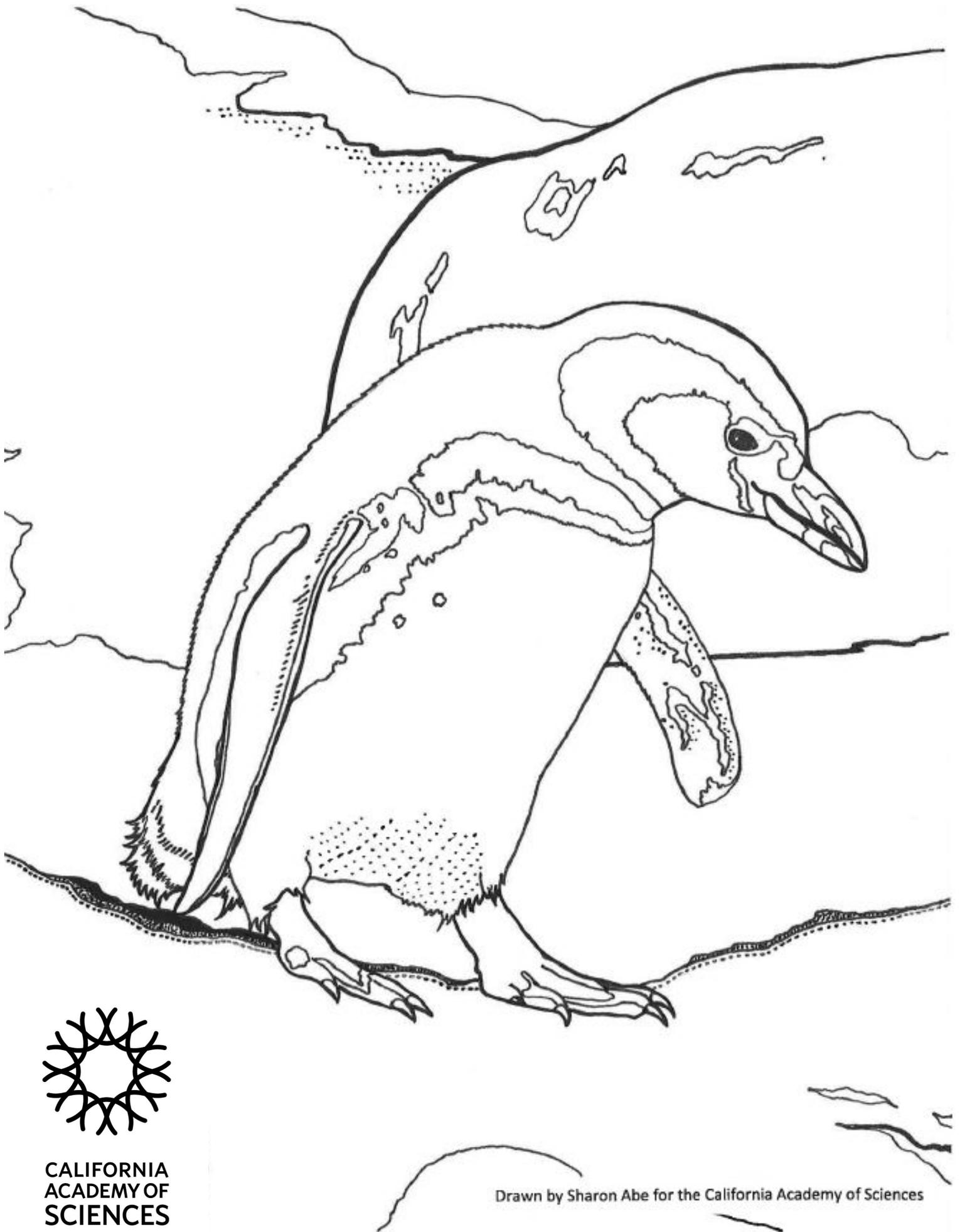
1. Draw the following shapes (or use the print-out on the second page):
 - 1 large oval shape for the body
 - 1 medium-sized circle for the belly
 - 2 thin ovals for the wings
 - 2 small heart shapes for the feet
 - 1 small triangle for the beak
 - 2 small circles for the eyes
2. Color the shapes and then cut them out.
3. Glue the belly, wings, feet, beak, and eyes to the penguin's body.
4. Draw a design on the belly to look like an African penguin!





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Drawn by Sharon Abe for the California Academy of Sciences

JUNIOR SCIENTIST ADVENTURE

SELF-GUIDED ACTIVITY

Penguin Observation Activity Chart

observe



An observation is made when someone uses their senses to explore the world around them.

record



Scientists use these observations to record information about plants, animals, and anything else they may be studying. This information helps scientists ask questions and solve problems.

share



Penguin biologists use observations to record penguin diet and behavior so that they can better understand the health and well-being of the African penguin colony.



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Generously supported by ORACLE

DIRECTIONS

1 Observe 2-3 penguins for five minutes.

2 Mark down what you observe on the chart.

PENGUIN

The bands on the penguins' wings help biologists tell them apart.



See the African Penguin Colony chart to identify the penguins!



PREEN

Look for a penguin cleaning their feathers with their beak.



EAT

Our penguins eat sustainable seafood, mainly herring & capelin. Explore **Seafood Watch** to learn how you can eat sustainably too!

EXAMPLE

Poppy

Orange band, left wing

///

Once when they got out of the water + 2 other times

///

3 big fish & 2 small

| | | |
|--|--|--|
| | | |
| | | |
| | | |

3 Talk with others in your group about what you noticed.

4 Continue to make more observations about life here at the Academy & beyond!



SWIM

Penguins swim to look for food, bathe, play, and exercise.



COLLECT

Penguins collect leaves or similar materials for nests. Look for green nesting materials that are not leaves.



WALK

Look for a penguin walking around on land. Where is it going?



INTERACT

Penguins communicate with each other in many ways. Notice penguins looking at each other, preening one another, or fighting.

| <i>//</i> <i>Swam for 2 minutes</i> | <i> </i> <i>Stole nesting materials from another penguin!</i> | <i>///</i> <i>Walked to get food and interacted with their mate</i> | <i>///</i> <i>Stared at another penguin and then brayed (penguin call)</i> |
|--|--|--|---|
| | | | |
| | | | |
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FIELD NOTES

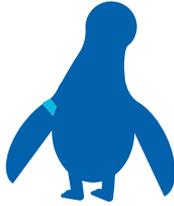
Sketch an African penguin you observed.

Focus on Observations before Art: Scientific drawing isn't about a perfect picture. It's about recording your observations visually. Your sketch can include labels, questions, and even your thoughts and ideas.

Keep on exploring, observing, and asking questions about the world around you!

African Penguin Colony

AS OF OCTOBER 2020



Left Band
Female



Right Band
Male

Stanlee
2018

Tux
2006

Kianga
2007



Dunker
2007

Poppy
2018



Darcy
2013

Dassen
1984



Grendel
1991

Ty
2011



Robben
2001

Opal
1988



Pete
2007



Stand Up Penguin

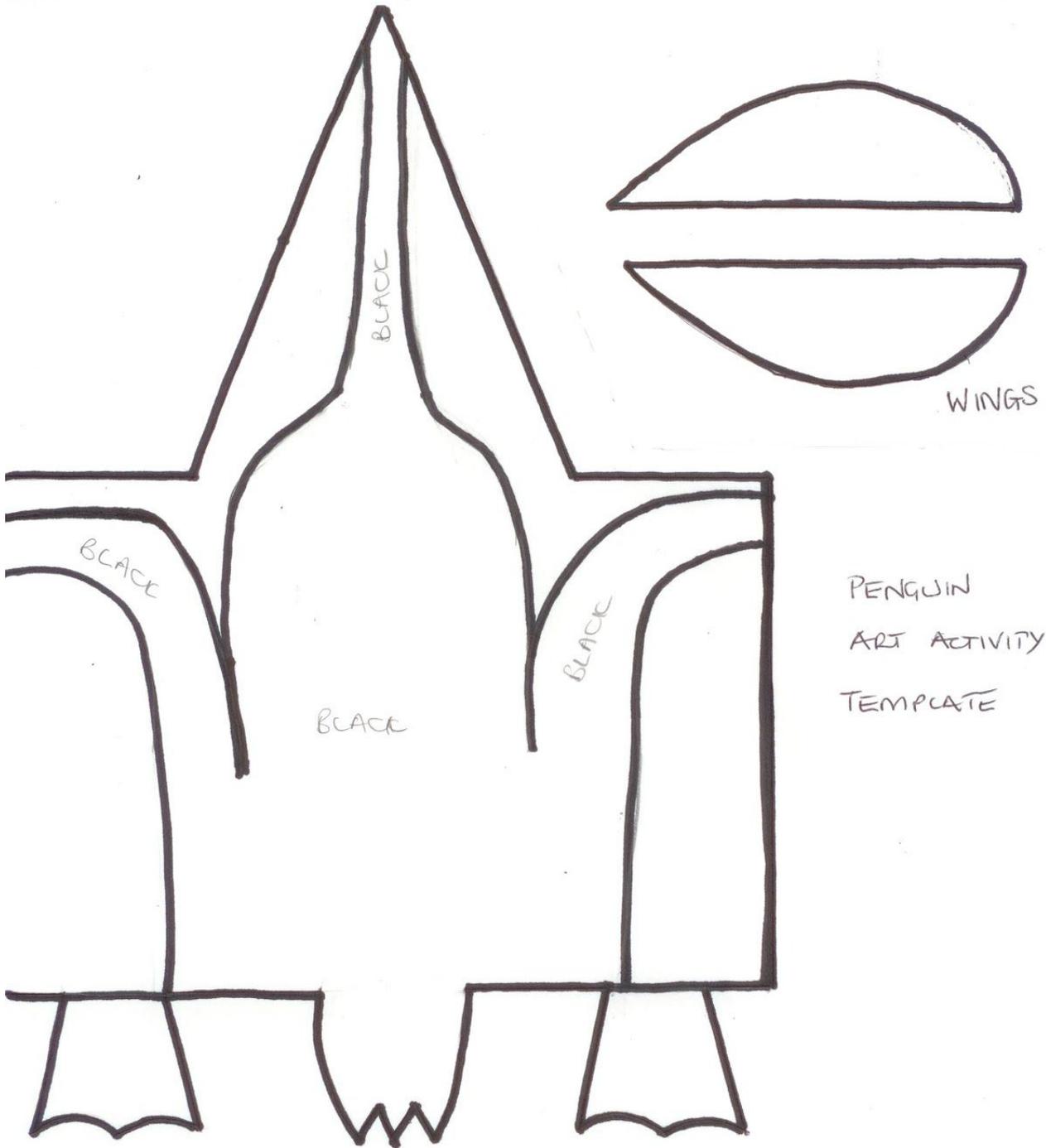
Materials

Penguin print-out template (page 2)
Scissors
Crayons
Tape and/or glue

Directions

1. Color the penguin template on the second page. Use the African Penguin image below for inspiration.
2. Cut out the penguin template, including the body piece and two wing pieces.
3. Fold the sides of the body piece around to make a cylinder and then tape or glue them together. Make sure the colored side is facing out.
4. Fold the feet and tail out.
5. Fold the tip of the triangle over to make the penguin's head and beak. Tape or glue the tip of the beak to the penguin's chest.
6. Glue or tape the penguin's wings to its sides.





PENGUIN
ART ACTIVITY
TEMPLATE



Fraction Penguin

Materials

Any object with a circular base that you can use to trace a circle
White and black construction paper

Pencil

Black marker

Scissors and glue

Directions

1. Trace and cut out four black circles and two white circles. Tip: use a CD, container lid, plastic bowl, or anything with a round base to trace the circles.
2. Make four back feathers by cutting 1 whole black circle into four $\frac{1}{4}$ size pieces. Glue all four feathers onto the white belly circle. Your penguin's body now has countershading: their white bellies and black backs help penguins camouflage while swimming in the water.
3. Turn the penguin over so that the white belly is facing up.
4. Glue 1 whole black circle to the top of the penguin's body to make its head.
5. Cut 1 whole black circle into two $\frac{1}{2}$ size pieces to make its wings. Glue the wings to the sides of your penguin's body.
6. Cut 1 whole black circle into $\frac{1}{8}$ size pieces. Glue three $\frac{1}{8}$ size pieces together to make a foot. Repeat for the second foot, then glue both feet to the bottom for the penguin's body.
7. Use the two remaining $\frac{1}{8}$ size pieces to make a beak. Put one 1 piece on top of the other to make a top and bottom beak. Glue them together just along the wide edge. Then glue the bottom beak to the penguin's face.
8. Cut 1 whole white circle into sixteen $\frac{1}{16}$ size pieces. Glue two of these pieces to the penguin's head to make eye masks.
9. Draw eyes on the eye mask and a chest band on the body.



Recipe for a Fraction Penguin

Black (4 whole circles)

- 1 head, size 1
- 2 wings for swimming, size $\frac{1}{2}$
- 4 back feathers, size $\frac{1}{4}$
- 6 toes for waddling and hopping, size $\frac{1}{8}$
- 2 beak parts for grabbing fish, size $\frac{1}{8}$

White (1 whole circle, plus mini slices)

- 1 belly, size 1
- 2 eye masks, size $\frac{1}{16}$

Use a black marker to draw on eyes and a chest band, and voila!

