

# *Perfectly Penguin*

**An Educator's Guide to Lesson Plans  
about the Tuxedoed Bird**



# Perfectly Penguin

## Table of Contents

### Suggested Activities

Related Exhibitions at the Field Museum

Penguin Stories

*Antarctic Journal*

*The Life Cycle of an Emperor Penguin*

How do Penguins Keep Warm?

What Does a Skull Tell You?

More About Bird Beaks

Life Begins in an Egg

Penguin Movies

*March of the Penguins*

*Happy Feet*

**Suggested Books for Educators**

**Suggested Books for Children**

**Suggested Websites**

## Related Exhibitions

### ***Bird Habitats***

A birdwatcher's paradise of peacocks, penguins, quetzals, weavers . . . You can study them to your heart's content.



### ***World of Birds***

Why do peacocks have such long tails? How does a pelican use its pouch? Why do mockingbirds mock? Find out here.



## Penguin Stories

**Lesson Title:** Penguin Stories: *Antarctic Journal: The Hidden World of Antarctica's Animals*

### Illinois Learning Standards:

#### Language Arts:

Goal 1 – Reading: 1.B.1a, 1.B.2a, 1.B.3a, 1.B.4a, 1.B.5a, 1.C.1a, 1.C.2a, 1.C.3a, 1.C.4a, 1.C.1d, 1.C.2d, 1.C.3d, 1.C.4d

Goal 2 – Literature: 2.B.1a, 2.B.2a

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b, 4.B.2b

#### Social Studies:

Goal 17 – Geography: 17.A.1a, 17.A.2a, 17.B.1a, 17.C.1a, 17.C.3a, 17.C.2c,

### Objectives:

Students will be able to:

- Build on existing vocabulary.
- Distinguish between various Antarctic animals.
- Explain how life forms are interdependent on each other.

### Materials:

- Book: *Antarctic Journal: The Hidden World of Antarctica's Animals*
- Student Activity Sheet
- Pencil

### Instructional Procedures:

- 1) Begin by introducing Antarctica and its extreme climate. Explain how various animal life does survive these extremes. Ask students what kind of animals they think live in Antarctica. Ask students to suggest ways in which they think these animals have adapted to survive.
- 2) Read *Antarctic Journal* to students.
- 3) Ask students to answer the questions about the book on the student activity sheet.

# Penguin Stories: Antarctic Journal

## Student Activity Sheet

Name \_\_\_\_\_

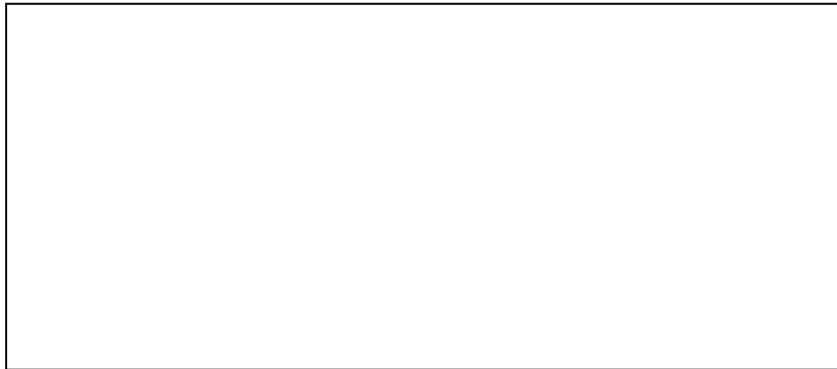
### Krill:

1. During the winter, where do all young krill live? \_\_\_\_\_
2. How many legs do krill have? \_\_\_\_\_
3. How long can krill live? \_\_\_\_\_

### Diatoms:

4. The krill's last meal were diatoms. What do they look like through the krill's transparent body? \_\_\_\_\_  
\_\_\_\_\_

5. Under a microscope, some diatoms resemble brownish-yellow dots and strings of dots in a chain. Sketch below what you think they look like:



### Elephant Seal:

6. When do elephant seals swarm to the islands? \_\_\_\_\_
7. Where do female elephant seals give birth to their pups? \_\_\_\_\_

### Adelie Penguins:

8. What do adelie penguins use to build their nests? \_\_\_\_\_
9. How many chicks are in most adelie nests? \_\_\_\_\_
10. What does the parent penguin feed its chicks? \_\_\_\_\_

**Blue-Eyed Shags:**

- 11. Droppings of the blue-eyed shags are called: \_\_\_\_\_
- 12. What do blue-eyed shags use to build their nests? \_\_\_\_\_
- 13. What do blue-eyed shags feed their young? \_\_\_\_\_

**Giant Petrels:**

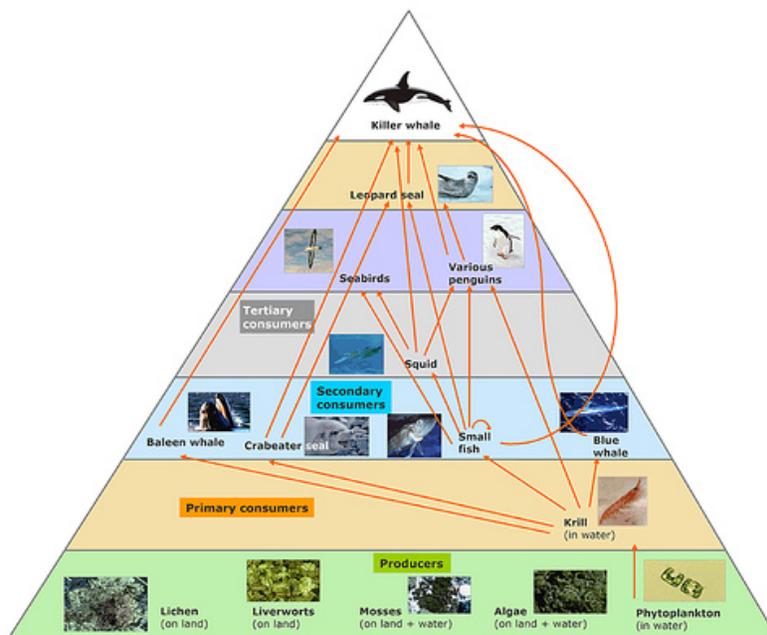
- 14. Giant petrels are scavengers. What does this mean? \_\_\_\_\_
- 15. How do giant petrels react if bothered by an intruder? \_\_\_\_\_
- 16. At what age do giant petrel chicks fly away to places like New Zealand and Australia? \_\_\_\_\_

**Leopard Seals:**

- 17. Leopard seals are an Antarctic predator. What does this mean? \_\_\_\_\_  
\_\_\_\_\_
- 18. What kinds of animals do leopard seals eat? \_\_\_\_\_

**Food Web:**

- 19. Why do you think krill is so important in Antarctica? Use the food web below for a hint. \_\_\_\_\_  
\_\_\_\_\_



## Penguin Stories

**Lesson Title:** Penguin Stories: *The Life Cycle of an Emperor Penguin*

### Illinois Learning Standards:

#### Language Arts:

Goal 1 – Reading: 1.B.1a, 1.B.2a, 1.B.3a, 1.B.4a, 1.B.5a, 1.C.1a, 1.C.2a, 1.C.3a, 1.C.4a, 1.C.1d, 1.C.2d, 1.C.3d, 1.C.4d

Goal 2 – Literature: 2.B.1a, 2.B.2a

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b, 4.B.2b

#### Social Studies:

Goal 17 – Geography: 17.A.1a, 17.A.2a, 17.B.1a, 17.C.1a, 17.C.3a, 17.C.2c,

### Objectives:

Students will be able to:

- Build on existing vocabulary.
- Distinguish between penguins and other birds.
- Explain how an Emperor Penguin completes its life cycle.
- Describe how human factors may be affecting penguin adaptation and survival.

### Materials:

- Book: *The Life Cycle of an Emperor Penguin*
- Student Activity Sheet
- Pencil

### Instructional Procedures:

- 1) Begin by introducing Antarctica and its extreme climate. Explain how penguin life survives these extremes. Ask students to suggest ways in which they think penguins have adapted to survive.
- 2) Read *The Life Cycle of an Emperor Penguin* to students.
- 3) Ask students to answer the questions about the book on the student activity sheet.

# Penguin Stories: Life Cycle of an Emperor Penguin

## Student Activity Sheet

Name \_\_\_\_\_

### Vocabulary:

1. A **penguin** is a \_\_\_\_\_.

- a. fish
- b. reptile
- c. bird
- d. mammal

2. **Warm-blooded** means \_\_\_\_\_.

- a. the blood is warm.
- b. the blood is cold.
- c. blood temperature stays the same.
- d. blood temperature always changes.

3. A **habitat** is a \_\_\_\_\_.

- a. place where an animal lives.
- b. something that penguins eat.
- c. type of penguin
- d. the coldest place on Earth.

4. When a penguin is **tobogganing**, it is:

- a. eating
- b. sleeping
- c. walking
- d. sliding on its belly

### Recall:

To complete the life cycle of the Emperor Penguin, place the following in correct order by numbering them from 1 to 5.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

List three ways in which **humans** are hurting penguins:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Explain how **global warming** is directly hurting Emperor penguins.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## How Do Penguins Keep Warm?

**Lesson Title:** How Do Penguins Keep Warm?

### **Illinois Learning Standards:**

#### **Language Arts:**

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a, 3.C.1a, 3.C.2a, 3.C.3a

Goal 5 - Research: 5.A.1a, 5.A.2a, 5.A.3a

#### **Mathematics:**

Goal 6 – Number Sense: 6.B.1

Goal 7 – Estimation and Measurement: 7.A.1b

Goal 10 – Data Analysis and Probability: 10.A.1a, 10.A.2a, 10.A.3a, 10.A.1b, 10.A.2c, 10.B.1b, 10.B.1c, 10.B.2d

#### **Science:**

Goal 11 – Inquiry and Design: 11.A.1a, 11.A.2a, 11.A.3a, 11.A.1b, 11.A.2b, 11.A.3b,

Goal 12 – Concepts and Principles: 12.A.1a, 12.A.1b, 12.B.1a, 12.B.1b, 12.B.2b, 12.B.3b

### **Objectives:**

Students will be able to:

- Explain how penguins insulate themselves from cold climates.
- Mimic the experience of fat insulating the body from cold temperatures.
- Utilize the scientific method.

### **Materials:**

#### ***Students Work In Pairs***

- Container of Petroleum Jelly
- 2 Pairs of Rubber Gloves
- Bucket of Ice
- 2 Student Activity Sheets
- 2 Pencils

**Background:**

Penguin species have a number of physical features that help them conserve heat in extremely cold conditions. Included are the rerouting of blood flow, layers of dense, warm feathers, and behaviors like huddling together. In addition, penguins, like the Emperor Penguin, are able to build up extensive fat reserves in their cylindrical bodies, and have a fat layer insulating their inner core – an important feature that gets them through periods of extreme cold and stretches between feeding.

**Instructional Procedures:**

- 1) Ask students to answer questions 1 through 3 on the student activity sheet.
- 2) Fill plastic buckets with ice cubes and cold water.
- 3) Have students place the rubber gloves on each hand.
- 4) Instruct the students to cover their left hand completely with petroleum jelly while leaving their right hand without petroleum jelly.
- 5) Record the start time then have students place both hands into the bucket of ice water.
- 6) Begin timing how long it is possible to leave each hand submerged in the ice water. ***If the students begin to feel pain, be sure to have them remove their hands from the water.***
- 7) Have each student record the time each hand remained submerged in the water in the data table and respond to the questions.

# How Do Penguins Keep Warm?

## Student Activity Sheet

Name \_\_\_\_\_

### Activity Questions:

1. Which hand do you think you will be able to keep submerged longer?      *left*                      *right*                      *same*

2. Explain your choice in question #1: \_\_\_\_\_  
\_\_\_\_\_

3. Form a hypothesis based on the two questions above: \_\_\_\_\_  
\_\_\_\_\_

### Data Table

	<b>Start Time</b>	<b>End Time</b>	<b>Total Time (sec)</b>
<b>Left Hand</b>			
<b>Right Hand</b>			

### Follow-Up Questions:

4. Which hand were you able to keep submerged longer?                      *left*                      *right*                      *same*

5. Explain your choice in question #4: \_\_\_\_\_  
\_\_\_\_\_

6. How does this activity relate to the role of fats in penguins? \_\_\_\_\_  
\_\_\_\_\_

7. How are some other ways that penguins keep themselves warm? \_\_\_\_\_  
\_\_\_\_\_

8. What was the purpose of placing a rubber glove on both hands, if only the left hand was covered in petroleum jelly? \_\_\_\_\_  
\_\_\_\_\_

## What Does a Skull Tell You?

**Lesson Title:** What Does a Skull Tell You?

### **Illinois Learning Standards:**

#### **Language Arts:**

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a, 3.C.1a, 3.C.2a, 3.C.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b, 4.B.2b

Goal 5 - Research: 5.A.1a

#### **Mathematics:**

Goal 7 – Estimation and Measurement: 7.A.1a,

Goal 10 – Data Analysis and Probability: 10.A.1a, 10.A.2a, 10.A.1b, 10.A.2c

#### **Science:**

Goal 11 – Inquiry and Design: 11.A.1c, 11.A.1e, 11.A.2e, 11.A.1f

Goal 12 – Concepts and Principles: 12.A.1a, 12.A.1b, 12.B.1a, 12.B.1b, 12.B.2b, 12.B.3b

Goal 13 – Science, Technology, and Society: 13.B.1a, 13.B.1b

### **Objectives:**

Students will be able to:

- Describe penguin skulls.
- Explain how the beak is useful to a penguin.
- Explain why penguin beaks differ from the beaks of other birds.
- Perform measurements of penguin skull features.
- Explain how the physical features of each skull, allows for adaptation by that penguin.

### **Materials:**

- King Penguin and Magellanic Skulls
- Metric Rulers
- Student Activity Sheet
- Pencil

**Background:**

Animal skulls are wonderful works of nature. With them, the animal senses its environment, communicates, defends and feeds itself. Throughout the life of an animal its skull continuously changes proportions and appearances. Like the pages of a book may be read to reveal the life of a man, so may a skull be “read” to reveal the lifestyle of an animal. Much can be found out about an animal and its life from the structure of its skull and teeth or beak – from what the animal ate to whether it was the predator or prey, to how it defended itself.

Penguins have a strong beak. The beak is used to do many things, like catching food. The edges of the beak are sharp and have rough spines in the inside to help them hold onto the slippery fish they catch under water. The beak is used to carry materials for nest building. Penguins use their beaks for feeding their young. The beak is used to preen their feathers and to spread the oil to keep them waterproof. Penguins use their sharp beaks for protecting itself and its young.

**Instructional Procedures:**

- 1) Show the slide show of various bird beaks and their functions, which includes the two penguins skulls to be studied.
- 2) Pass the penguin skulls around and allow the students to handle each skull.
- 3) Ask the students to sketch each skull on the student activity sheet.
- 4) Using the ruler, instruct the students to measure the length of each beak. Record these measurements on the student activity sheet.
- 5) Instruct the students to measure the width of each beak at the tip. Record these measurements on the student activity sheet.
- 6) Ask the students why they think there is such a large difference in the measurements of the two beaks. Ask them to record their thoughts on the student activity sheet.
- 7) Ask the students to suggest possible uses of the penguin beak. Ask them to record their thoughts on the student activity sheet.

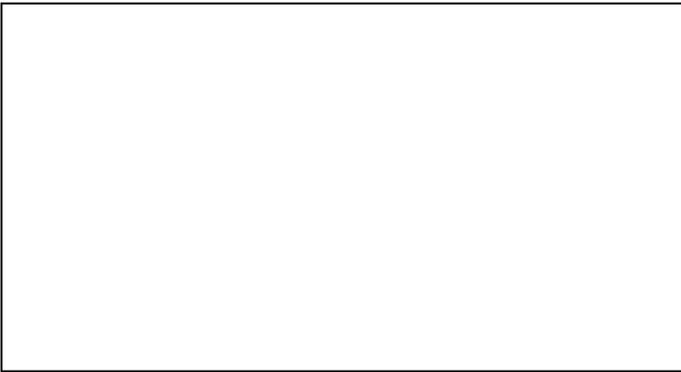
# What Does a Skull Tell You?

## Student Activity Sheet

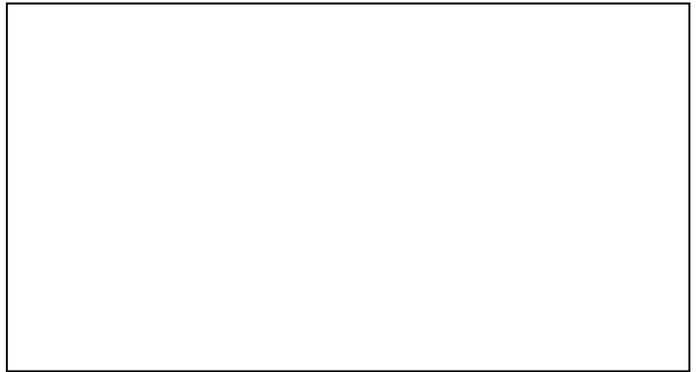
Name \_\_\_\_\_

### Sketch of Each Skull

#### King Penguin



#### Magellanic Penguin



### Data Table

	Beak Length (cm)	Beak Width (cm)
King Penguin		
Magellanic Penguin		

### Activity Questions:

1. What accounts for the differences in both the length and the width of each beak? \_\_\_\_\_

\_\_\_\_\_

2. What does a penguin use its beak for? Include several uses. \_\_\_\_\_

\_\_\_\_\_

## More About Bird Beaks

**Lesson Title:** More About Bird Beaks

### **Illinois Learning Standards:**

#### **Language Arts:**

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a, 3.C.1a, 3.C.2a, 3.C.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b, 4.B.2b

Goal 5 - Research: 5.A.1a, 5.A.2a

#### **Mathematics:**

Goal 6 – Number Sense: 6.B.1

Goal 10 – Data Analysis and Probability: 10.A.1a, 10.A.2a, 10.A.3a, 10.A.1b, 10.A.2c, 10.B.1b, 10.B.2b, 10.B.1c, 10.B.2d

#### **Science:**

Goal 11 – Inquiry and Design: 11.A.1c, 11.A.2c, 11.A.1e, 11.A.2e, 11.A.1f

Goal 12 – Concepts and Principles: 12.A.1a, 12.A.1b, 12.B.1a, 12.B.1b, 12.B.2b, 12.B.3b

### **Objectives:**

Students will be able to:

- Explain the relationship between a bird's beak and its ability to find food and survive in its environment.
- Explain why penguin beaks differ from the beaks of other birds.
- Collect and graph data.

### **Materials:**

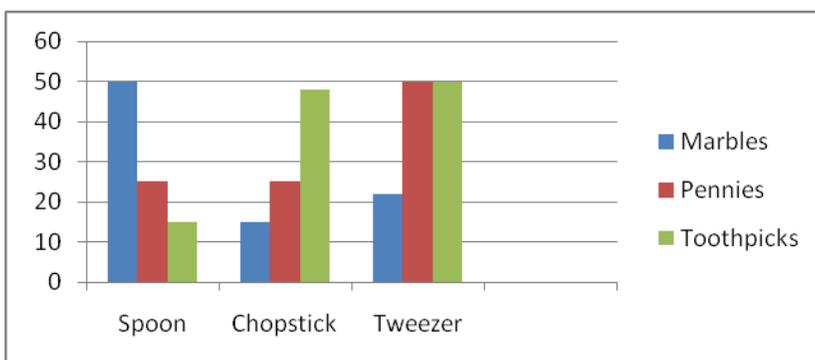
- Spoons
- Chopsticks
- Tweezers
- Plastic Cups
- Glass Marbles
- Toothpicks
- Pennies
- Graph Paper
- Student Activity Sheet
- Pencil

## Background:

Animal adaptations are any body shape, process, or behavior that allows an organism to survive in its environment. Animals change over time to fit the needs of their environment. Birds have many different kinds of beaks, depending on what they eat and where their food source is. For instance, birds may find their food in water, mud, flowers, seeds, or in wood. A hummingbird has a long, thin bill that allows it to sip the nectar from inside flowers. The different shapes of beaks allow easier access to these various food supplies. If an environment is altered, organisms within the area would need to change (adapt) in order to survive.

## Instructional Procedures:

- 1) Show the slide show of various bird beaks and their functions.
- 2) Allow each student to select a “beak” from the objects provided.
- 3) Each student should also be provided a plastic cup to represent the bird’s stomach.
- 4) Instruct the students to hold their “beak” in one hand and their “stomach” in the other.
- 5) Timing for 10 seconds, instruct the students to pick up “food” (glass marbles) and place them into their stomach.
- 6) At the end of ten seconds, have the students empty their stomach and count the number of marbles that were in it. Have the student record this number on the student activity sheet.
- 7) Repeat this activity for each of the other food types (pennies and toothpicks).
- 8) Have each student provide their data, which will be recorded on a class grid.
- 9) Using the data that has been recorded on the class grid and the graph paper, have each student create a bar graph that shows the class totals for each beak and food type. The three different bird beaks should be on the X axis and the amount of food collected should be the Y axis (see example below).
- 10) Students should respond to the questions on the student activity sheet.



**More About Bird Beaks**

**Student Activity Sheet**

Name \_\_\_\_\_

**Individual Data**

Type Of Beak	Glass Marbles	Pennies	Toothpicks	Total Food Collected

**Class Data**

	Glass Marbles	Pennies	Toothpicks	Total Food Collected
Spoon				
Chopstick				
Tweezers				

**Activity Questions:**

1. Which beak collected the most of which food item? \_\_\_\_\_

2. What do you think would happen to your bird if only one food item was available? \_\_\_\_\_

\_\_\_\_\_

3. Which of the beak types feed most successfully on which food item? \_\_\_\_\_

4. Was one beak type more successful with more than one food item? \_\_\_\_\_

\_\_\_\_\_

5. Did your earlier observations about beak types help you to understand how birds feed side by side but utilize different food items?

\_\_\_\_\_

## Life Begins In An Egg

**Lesson Title:** Life Begins In An Egg

### **Illinois Learning Standards:**

#### **Language Arts:**

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a, 3.C.1a, 3.C.2a, 3.C.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b, 4.B.2b

Goal 5 - Research: 5.A.1a

#### **Mathematics:**

Goal 7 – Estimation and Measurement: 7.A.1a,

Goal 10 – Data Analysis and Probability: 10.A.1a, 10.A.2a, 10.A.1b, 10.A.2c

#### **Science:**

Goal 11 – Inquiry and Design: 11.A.1c, 11.A.1e, 11.A.2e, 11.A.1f

Goal 12 – Concepts and Principles: 12.A.1a, 12.A.1b, 12.B.1a, 12.B.1b, 12.B.2b, 12.B.3b

Goal 13 – Science, Technology, and Society: 13.B.1a, 13.B.1b

### **Objectives:**

Students will be able to:

- Explain how penguin life begins in an egg.
- Explain how the size and shape of an egg are related to a particular bird.
- Perform measurements on eggs and collect data.
- Describe how climate change may be affecting penguin reproduction and egg development.

### **Materials:**

- King Penguin Egg
- Chicken Egg
- Rulers
- Student Activity Sheet
- Pencil

**Background:**

The king penguin has the longest breeding cycle of all the penguin species, lasting 14 to 16 months. A female king penguin may produce a chick during alternate breeding seasons. King penguins nest and breed on Subantarctic and Antarctic islands. They prefer beaches and valleys of level ground or gentle slopes, free of snow and ice, and accessible to the sea. King penguins build no nests. They stand upright while incubating a single egg on the tops of their feet under a loose fold of abdominal skin. Under this loose fold is a featherless patch of skin called a *brood patch*, which occurs in all incubating birds. The brood patch contains numerous blood vessels that, when engorged with blood, transfer body heat to the eggs. Eggs may be white to bluish or greenish. The shape varies among species. In Humboldt and Adélie penguins, the egg is more or less round. In emperor and king penguins the egg is rather pear-shaped, with one end tapering almost to a point. With this elliptical shape, if an egg falls off of the feet of a parent bird, the egg will roll in a circle instead of away from the parent. Egg size and weight varies with species. From the records of SeaWorld's successful penguin breeding programs, emperor penguin eggs measure 11.1 to 12.7 cm (4.4-5 in.) long and weigh 345 to 515 g (12.1-18 oz.), and Adélie penguin eggs measure 5.5 to 8.6 cm (2.2-3.4 in.) long and weigh 61 to 153.5 g (2.1-5.4 oz.).

**Instructional Procedures:**

- 1) Show the slide show of egg structure and various birds with their eggs.
- 2) Pass the penguin and chicken eggs around and allow the students to handle each egg.
- 3) Ask the students to sketch each egg on the student activity sheet.
- 4) Using the ruler, instruct the students to measure the length of each egg. Record these measurements on the student activity sheet.
- 5) Ask students to describe the shape of each egg.
- 6) Ask the students why they think there is such a large difference in the measurements and the shapes of the two eggs. Ask them to record their thoughts on the student activity sheet.
- 7) Ask students how they think changing climate could affect the development of eggs.

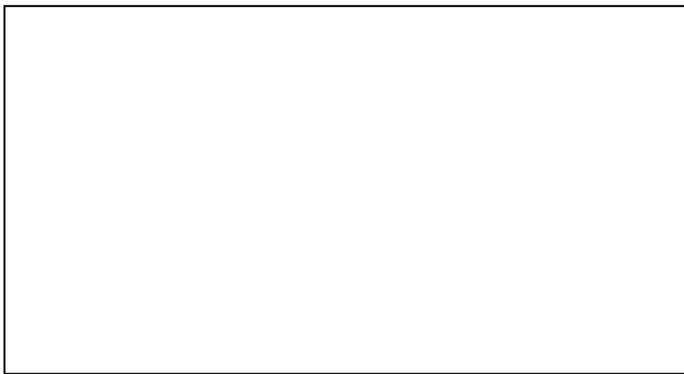
**Life Begins In An Egg**

**Student Activity Sheet**

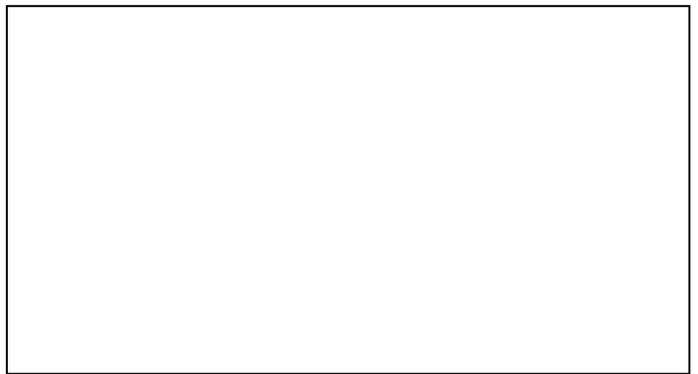
Name \_\_\_\_\_

**Sketch of Each Egg**

**King Penguin**



**Chicken**



**Data Table**

	<b>Egg Length (cm)</b>	<b>Description of Egg Shape</b>
<b>King Penguin</b>		
<b>Chicken</b>		

**Activity Questions:**

1. What accounts for the differences in both the length and the shape of each egg? \_\_\_\_\_

\_\_\_\_\_

2. Why do penguins have to keep their eggs warm? \_\_\_\_\_

3. How do you think climate change may affect the development of penguin eggs? \_\_\_\_\_

\_\_\_\_\_

## Penguin Movies

**Lesson Title:** Penguin Movies: *March of the Penguins*

### Illinois Learning Standards:

#### Language Arts:

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a, 3.C.1a, 3.C.2a, 3.C.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b,

Goal 5 - Research: 5.A.1a, 5.A.2b, 5.A.3b

#### Science:

Goal 12 – Concepts and Principles: 12.A.1a, 12.A.1b, 12.B.1a, 12.B.1b, 12.B.2b, 12.B.3b

#### Social Studies:

Goal 18 – Social Systems: 18.B.1a, 18.B.2a, 18.B.3a, 18.B.1b, 18.C.1, 18.C.2

### Objectives:

Students will be able to:

- Describe how Emperor penguins have adapted to Antarctic extremes.
- Relate to what it means to be part of a community.
- Participate as a member of their community.

### Materials:

- *March of the Penguins* DVD
- Student Activity Sheet
- Pencil

### Background:

Narrated by Morgan Freeman, *March of the Penguins* is an amazing, awe-inspiring, all-ages, true-life tale touched with humor and alive with thrills. Breathtaking photography captures the transcendent beauty and staggering you-are-there drama of devoted parent penguins

who, in the face of the fierce polar winter, take turns guarding their egg and trekking to the ocean in search of food.

### **Instructional Procedures:**

1) Watch the film *March of the Penguins*.

2) As the students watch, ask them to look for different examples of how penguins live and participate in a community and to think about the different roles, or jobs, that the emperor penguins have in their community. As students watch, they should be looking for evidence of the following:

- How do the animals interact?
- Do they share anything?
- Do they seem to have assigned roles in the community?
- Who cares for the young?
- Do they have any rituals like the emperor penguins?

3) Every member of the community has a special role to play in helping other members of the community. Ask students to think about the members of their community. What roles do the various members play? Who benefits, and how?

4) Ask students to imagine that they are on assignment to spend time with these penguins.

5) Ask students to write a journal entry that explains their experience as a penguin, describing the role they played, and how they "fit in" with the other penguins as part of their community. What did they learn about being a community member?

6) Ask students to think about their community for a minute, imagining how they would describe it to another person. What words would they use? Lots of people confuse the word "community" with the word "neighborhood" and think of their community as just the physical place where they live.

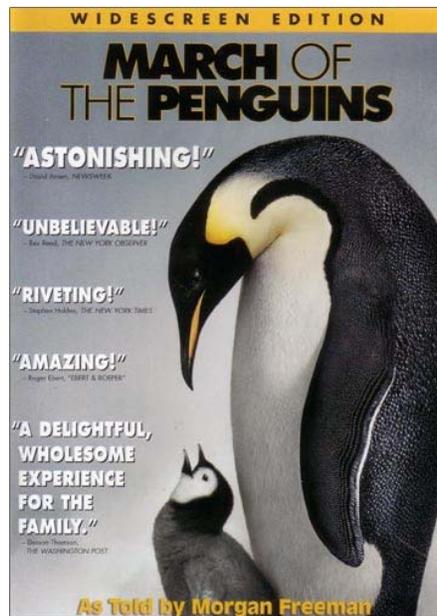
7) Ask students to consider how what they have learned from the penguin and other animals, can help them support their own community. Do people in their community have certain roles? Do they? What are some of the things that members of their community do for each other? In what ways is their community similar to a rookery?

8) Explain that there are lots of different ways that students can be an active participant in their community. For help, they can also look at the following list of ways in which they can help their community. Do they already do some of these things? Can they do any of these things? Can they think of other things they would like to do?

- Clean up litter from their street
- "Buddy read" with a younger student
- Help an elderly neighbor with yard work

- Start a "drive" to assist other members of their community or another community (blanket or coat drive, disaster relief drive, fund-raising drive)
- Organize a block party
- Volunteer at a charitable organization in their town
- Offer to babysit a neighbor's child
- Introduce yourself to any new students at your school
- Join a community team or league
- Participate in a community organization such as the YMCA

9) Students should use the student activity sheet to record their thoughts about the questions above.



**Penguin Movies: *March of the Penguins***

**Student Activity Sheet**

Name \_\_\_\_\_

**Evidence:**

1) How do the penguins interact? \_\_\_\_\_  
\_\_\_\_\_

2) Do they share anything? \_\_\_\_\_

3) Do they seem to have assigned roles in the community? \_\_\_\_\_  
\_\_\_\_\_

4) Who cares for the young? \_\_\_\_\_

5) Do you have any rituals like the emperor penguins? \_\_\_\_\_  
\_\_\_\_\_

**Journal Entry: *My Time with the Penguins***

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Describe Your Community:** \_\_\_\_\_  
\_\_\_\_\_

**In what ways is your community similar to a rookery?** \_\_\_\_\_  
\_\_\_\_\_

**Have you learned anything about communities from the penguins?** \_\_\_\_\_  
\_\_\_\_\_

**How do you participate as a member of your community?** \_\_\_\_\_  
\_\_\_\_\_

## Penguin Movies

**Lesson Title:** Penguin Movies: *Happy Feet*

### Illinois Learning Standards:

#### Language Arts:

Goal 3 – Writing: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.B.1a, 3.B.2a, 3.B.3a, 3.C.1a, 3.C.2a, 3.C.3a

Goal 4 – Listening and Speaking: 4.A.1a, 4.A.2a, 4.A.3a, 4.A.4a, 4.A.1b, 4.A.2b, 4.A.3b, 4.A.4b, 4.A.1c, 4.A.1d, 4.B.1b,

#### Fine Arts:

Goal 25 – Language of the Arts: 25.A.1a, 25.A.2a, 25.A.1c, 25.A.2c

Goal 26 – Creating and Performing: 26.A.1a, 26.A.2a, 26.A.1c, 26.A.2c, 26.B.1a, 26.B.2a

#### PE and Health:

Goal 24 – Communication/Decision Making: 24.A.1a, 24.A.2a, 24.A.1b, 24.A.2b, 24.A.3b,

### Objectives:

Students will be able to:

- Use music and dance as a form of communication and expression.
- Recognize their own strengths and talents and those of their peers.
- Appreciate to be happy with who they are.
- Explain the importance of protecting Antarctic animals.

### Materials:

- *Happy Feet* DVD
- Student Activity Sheet
- Pencil

### Background:

Emperor penguins are born to sing. All except young Mumble, who was born to dance...tap dance. Such un-penguin-like behavior eventually gets Mumble kicked out of Emperor Land and into the big, cold world. Joined by his Adelie Amigos and an all-knowing Rockhopper penguin named Lovelace, Mumble embarks on an epic journey and ultimately proves that by being true to yourself, you can make all the difference in the world.

### **Instructional Procedures:**

1) Watch the film *Happy Feet*.

2) The variety of songs in *Happy Feet* shows that music can communicate many different things and can mean different things to different people. Certain songs touch people very strongly. There are various parts to any given song. Some songs are meant to express emotions such as happiness, love, sadness or anger, while other songs send out a message through the use of the lyrics. Songs are made out of a combination of voices, different instruments that are playing, the beat, the lyrics, the tone of the singer's voice and more.

Ask students to think about a song they know that is very important to them, a song that makes them feel an emotion very strongly—this could be anything from love to joy to anger. Have students complete the chart on the student activity sheet.

3) Share with your students that Norma Jean and Memphis are two of the best singers in the Emperor penguin nation. When they have a baby penguin named Mumble, they expect that he will be able to sing and find his heartsong like the rest of the penguins. Memphis is particularly embarrassed when his son cannot sing and taps his feet instead. Yet Mumble's dancing is his way of expressing happiness and love. While he does not have the strongest voice, he does have a unique dancing talent. There are two types of dancing in *Happy Feet* that are highlighted. One of course is the tap-dancing that Mumble introduces to the Emperor penguins and the other is the Mambo, which is a type of Latin dance that the Adelie penguins do. In real life penguins do not tap dance or do the mambo, but there are plenty of people who participate in these types of dance!

Using the list of popular dance forms, have each student pick one and do research to answer the questions on the student activity sheet.

4) Share with your students that *Happy Feet* follows the life of one remarkable penguin as he discovers and develops his tap dancing skills. His strongest ability is to dance while most of his peers excel at singing. Like the penguins in this computer-animated movie, many people like to sing and/or dance in order to express their emotions. But, not everyone likes to sing and dance. You will find that people have a broad range of talents, from singing and dancing to painting, playing a musical instrument, playing a sport, creative writing and more!

Ask students to think about the things they like to do for fun or to express themselves; this can include anything from doing art to playing a sport to skipping rope. Have them complete the questions on the student activity sheet.

5) After they have answered the questions from step four, have each student find a partner and respond to the next set of questions.

6) Share with your students that In *Happy Feet* we see a variety of Antarctic species that have a wide range of physical characteristics and behaviors. On his adventures Mumble is a good observer of this variation. From a very young age Mumble realizes that he is different from the rest of his family and friends. When Mumble leaves the Emperor lands he discovers a neighboring Adelie penguin community where he meets new friends including Ramon, Nestor and Rinaldo. They, too, are penguins but Mumble notices that they look and behave very differently from the Emperor penguins. Just as there are differences among the penguins in *Happy Feet*, there are differences among human beings! As you look at the world around you, you will notice that people speak different languages, have different shades of skin and appearances, eat different foods, participate in very different activities, wear different types of clothing and more!

Have students complete the “five things you may not have known about me” on the student activity sheet.

7) When everyone in the group has completed their five items, have the students take turns presenting their sheets to the class.



Penguin Movies: *Happy Feet*

Student Activity Sheet

Name \_\_\_\_\_

What emotion(s) do you feel when you hear this song?	Which of the lyrics (if any) are most important to you and why?	What instruments (if any) can you hear?	Do you know what genre of music it is? (rock, classical, jazz, rap, reggae, etc)	What country or part of the United States is this music from?	Who is/are the singer(s)?

1) Why does the song you chose make you feel the emotion(s) you described?

\_\_\_\_\_

2) Does this song make you want to do a certain activity such as dance, cry or laugh?

\_\_\_\_\_

3) Could you imagine a world without song? What would it be like?

\_\_\_\_\_

4) If you could give your song a color, what color would it be? Why?

\_\_\_\_\_

**Research:**

Tap	Square Dance	Texas Two-Step
Mambo	Salsa	Tango
Ballet	Merengue	Jitterbug
Jazz	Swing	Belly Dance
Modern	Waltz	Ballroom Dance
Hip-hop	Interpretive Dance	Polka
Stomp	Breakdancing	

1) From what country or countries does the music come from?

\_\_\_\_\_

2) When did it develop?

\_\_\_\_\_

3) Who are some of the famous stars of this dance type?

\_\_\_\_\_

4) Can you learn a few of the dance moves?!

\_\_\_\_\_

**Sharing Your Talents:**

My favorite activity or best talent is \_\_\_\_\_

I decided to start doing this activity because \_\_\_\_\_

I like doing this because it makes me feel \_\_\_\_\_

I have been doing this for \_\_\_\_\_.                      *weeks*                      *months*                      *years*

My partner's favorite activity or best talent is \_\_\_\_\_

He/she decided to start doing this activity because \_\_\_\_\_

He/she likes doing it because it makes him/her feel \_\_\_\_\_

He/she has been doing this for \_\_\_\_\_.                      *weeks*                      *months*                      *years*

**Who Are You?**

**5 Things You May Have Not Known About Me**

Three positive words to describe me are: \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.

My favorite food is \_\_\_\_\_.

\_\_\_\_\_ is a very special person to me because \_\_\_\_\_.

Two things I enjoy doing are: \_\_\_\_\_ and \_\_\_\_\_.

When I grow up I have the dream to \_\_\_\_\_.

## Suggested Books for Children

- Barner, Bob. 2007. *Penguins, Penguins, Everywhere*. Chronicle Books LLC, San Francisco, CA.
- Boring, Mel. 1998. *Birds, Nests and Eggs*. Gareth Stevens Publishing, Milwaukee, WI.
- Gibbons, Gail. 1998. *Penguins!* Holiday House Publishing, New York, NY.
- Hodge, Judith. 1999. *Animals of the Oceans: Penguins*. Barron's Educational Series, Hauppauge, NY.
- Lindeen, Carol, K. 2004. *Life in a Polar Region*. Capstone Press, Mankato, MN.
- Ling, Mary. 2008. *Penguin (See How They Grow)*. DK Publishing, New York, NY.
- Magloff, Lisa. 2004. *Penguin (Watch Me Grow)*. DK Publishing, New York, NY.
- Markle, Sandra. 2002. *Growing Up Wild: Penguins*. Simon and Schuster Children's Publishing, New York, NY.
- Patent, Dorothy, H. 1993. *Looking at Penguins*. Holiday House Publishing, New York, NY.
- Pringle, Laurence. 2007. *Penguins! Strange and Wonderful*. Boyds Mills Press, Inc., Honesdale, PA.
- Sayre, April, P. 2003. *Hooray for Antarctica*. Millbrook Press, Brookfield, CT.
- Scott, Elaine. 2004. *Poles Apart: Why Penguins and Polar Bears Will Never Be Neighbors*. Penguin Group, New York, NY.
- Sierra, Judy. 2003. *Antarctica Antics*. Harcourt Publishing, San Diego, CA.
- Simon, Seymour. 2007. *Penguins*. Collins Publishing, New York, NY.
- Squire, Ann, O. 2007. *Penguins*. Children's Press, New York, NY.

## Suggested Books for Educators

Bonner, Nigel. 1995. *Habitats: Polar Regions*. Thomson Learning, New York, NY.

Davis, Lloyd, S. 1994. *Penguin: A Season in the Life of the Adelie Penguin*. Harcourt Brace, San Diego, CA.

Povey, Karen. 2003. *Penguins: Endangered Animals and Habitats*. Lucent Books, Farmington Hills, MI.

Sayre, April P. 1998. *The Seven Continents Antarctica*. Twenty-First Century Books, Brookfield, CT.

Webb, Sophie. 2000. *My Season with Penguins*. Houghton Mifflin Publishing, Boston, MA.

## Suggested Websites

### **Penguin Science**

Fund and educational activities to help students learn about many interesting aspects of penguin life, history and their relationship to climate change.

**[www.penguinscience.com](http://www.penguinscience.com)**

### **Sea World**

Based on a long-term commitment to education, SeaWorld strives to provide an enthusiastic, imaginative, and intellectually stimulating atmosphere to help students reach their academic potential.

**[www.seaworld.org](http://www.seaworld.org)**

### **New Zealand Penguins**

Information on the penguin species in New Zealand, their status, conservation, where to view them, penguin facts, penguin events, research, news, webcams and games.

**[www.penguins.net](http://www.penguins.net)**

### **Antarctic Connection**

The Antarctic Connection is an internet based e-tailer and information source for All Things Antarctic!

**[www.antarcticconnection.com](http://www.antarcticconnection.com)**

### **Enchanted Learning**

Provides printouts for labeling and coloring.

**[www.enchantedlearning.com](http://www.enchantedlearning.com)**