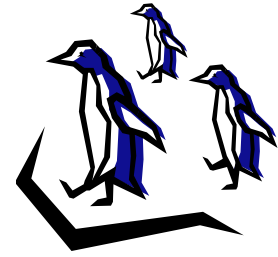




A Penguin Family Reunion



Lesson at a Glance: Students will experience how penguin parents and chicks are able to find their families in large, loud rookeries.
A fun way to group students for a classroom activity.

Suggested Prerequisites: None

Focus Question: How do penguin mothers find their mates and babies in huge, loud rookeries?

Background:

A female emperor penguin feeds in the ocean for many months while her mate incubates a lone egg and then cares for the newly hatched chick. When she returns to the crowded penguin colony, the only way she has to find her family is by recognizing the vocal sounds of her mate. Later, when the chick is older, he and his mother must recognize one another's calls in order to reunite. The survival of the offspring depends on the family's ability to recognize each other by sound. Other penguin species incubate their eggs in nests, but all use vocal sounds to recognize each other.

Subjects: Biology, Geography

Key Concepts:

Biology—Animal behavioral adaptations involving communication

Geography—Location of penguins

Assessment: Students will successfully find their penguin families.

Time: Depending on the size of the group—15 minutes

Materials Needed:

(Per student)

1 rhythm card

Ahead of time prepare sets of rhythm cards, a different rhythm for each of the groups with which you want to end. The students holding cards with the same rhythms on them will be searching for each other. On their cards will be printed dashes and diagonal lines. Each dash represents a clap or click of the tongue, and each diagonal line represents a pause. When the teacher says, "Begin," each student should clap out the rhythm on his or her card. Students should not show their cards until they are reasonably sure that they

have found their “mate” or “offspring.” The game is finished when all students have found their partners.

Yes, this activity is rather noisy, but so are penguin rookeries. The active nature of this game will engage students, and their interest in learning more about polar animal adaptations or life in Polar Regions will be piqued.

Activity:

For younger students—The teacher should divide the class into two groups of equal size. If the number of students is odd, the teacher may need to participate. One group is designated as the chicks and they must stay stationary. The second group represent the parents returning from the sea. They must move around the room. The rhythm is clapped out as the parents move around and try to find the matching clapping rhythm from the chicks. When they find each other, they stop clapping and stand together until all family groups have located their parents and chicks.

For older students—No designation of chicks and parents are given and all are moving around the room in search of their family group. To make it even more difficult, the rhythm is made by clicking the tongue instead of clapping. (This removes the visual clue of watching the clapping.)

For both groups—If some parents and chicks have not found each other after a reasonable time, ask everyone to stop making their family sound because there is a “poor lost chick.” Have the “lost chick” make its rhythm while the rest of the class listens carefully. If they have the same rhythm, they need to answer with it and the chick joins its family.

Discussion:

1. What did you find difficult about this game?
2. Why is this behavior important to penguins? What happens if a penguin is not very good at locating her chick, or a chick is poor at finding a parent?
3. Would you have survived as a penguin? Would most of your classmates?



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Navigating the ANDRILL Website

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C²S²: Climate Change Student Summit—

Environmental Literacy Framework and resource links

Flexhibit materials—*Antarctica's Climate Secrets*—posters, videos and activity book

Project Circle—connection to researchers and educators in the field—Ask a Scientist—Sun Shadows Project

Project Iceberg—blogs, images and videos

Antarctica: A Journey of Discovery—children's book on Antarctica—

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