

Penguin Soap Surprise

OBJECTIVES

Students will make a penguin egg from soap and use the soap egg to practice charting and approximation skills.

BACKGROUND

Penguins and other birds hatch from eggs. The time between egg-laying and egg-hatching is called the incubation period. During incubation the parent keeps the egg warm. Incubation periods for penguins range from one to two months. A chick “pips” the egg when it pokes a small hole in the shell with its beak. Penguin chicks may take up to three days to chip out of the shell.

MATERIALS

per student:

- plastic or ceramic penguin figurines (under 2½")
- one white bar soap
- small plastic sandwich bag
- cheese grater (or students can share)
- waxed paper (12" x 12")
- Penguin Soap Surprise*** chart on page 13

per class:

- water (in cups or bowls)
- paper towels
- newspaper

ACTION

1. Set up work area: cover tables with newspaper and lay out waxed paper, graters, water, and paper towels.
2. Distribute one penguin and one soap bar to each student.
3. Students use the cheese grater to grate their soap into flakes, then mix the flakes with a small amount of water until they form a soft dough.
4. Students wet the penguins and their hands. They form the soap dough around the penguin, packing the soap firmly and shaping it into an egg. Place the soap eggs aside to dry.
5. When the soap eggs are dry, place them in plastic bags. Students take home their soap eggs and a copy of the ***Penguin Soap Surprise*** chart. Students return charts when their penguin “hatches” (in about two weeks).
6. Compare and chart student results. To make a chart, use number of hand washings and number of days as your variables.
7. Discuss how the size and shape of the soap egg determines how fast the egg seems to dissolve.

DEEPER DEPTHS

Present each student with an award such as “Cleanest Hands” or “Most Efficient Use of Soap Egg.”

Investigate the sizes, shapes, and colors of other bird eggs.

Find out why soap is used to clean hands and kill germs.

Name _____ Start date _____

Penguin Soap Surprise

Put your penguin egg soap in your bathroom at home. Each time you wash your hands with the soap egg, mark your chart. Try to keep the time and amount of soap you use the same each time. Note the first appearance (pipping) of the penguin and when the soap is all used up (chick hatches). Ask other family members not to use your soap unless they want to help you with your study.

STARTING PREDICTION

I predict it will take _____
(number) hand washings for my penguin to “hatch.”

PENGUIN SOAP SURPRISE — WEEK ONE							
	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
<i>hand washings</i>							

END OF WEEK ONE TALLY

day/date _____ total number of hand washings _____

END OF WEEK ONE PREDICTION

I predict it will take _____
(number) more hand washings for my penguin to “hatch.”

PENGUIN SOAP SURPRISE — WEEK TWO							
	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
<i>hand washings</i>							

END OF WEEK TWO TALLY

day/date _____ total number of hand washings _____

FIRST APPEARANCE OF PENGUIN

My penguin “pipped” (first appearance) on (day/date) _____

My penguin “hatched” (all soap was used) on (day/date) _____

Total number of days to penguin chick hatching: _____

Total number of times penguin soap was used in hand washing: _____