



Ranger Rick

EDUCATOR'S GUIDE

EDUCATIONAL EXTENSIONS FOR THE DECEMBER/JANUARY 2022 ISSUE OF RANGER RICK® MAGAZINE

EGG-CELLENT PARENTS

In **“An Emperor’s Tale”** on **pages 6–12**, students learn how emperor penguin parents brave Antarctica’s frigid, icy conditions to raise their young. Ask students to visualize holding an egg on their feet for long, cold months like a penguin dad. Consider conducting the following activities outside on a cold day so students can get a taste of the penguin parent life.

- Provide each student with a tennis ball or Wiffle ball to represent an egg. Have students pretend they are penguin dads, balancing their eggs. Once all students have their eggs stable, start a timer to see which “dad” lasts the longest.
- Emperor penguin dads stay warm by gathering in tight circles and rotating between the inner and outer spots. Have students carefully gather into a tight circle, then rotate spots . . . without losing control of their eggs!
- Emperor penguin moms are just as tough! Returning from hunting to feed their chicks, penguin moms take turns with the dads caring for their eggs. Have students divide into pairs and practice carefully exchanging their eggs. Not as easy as it looks!

FEELING STUFFED

In **“The ‘Stuff’ of Nightmares”** on **pages 24–26**, Boomer Badger creates a long wishlist of things he wants (but probably doesn’t need) until he has some sense knocked into him and realizes how producing

and collecting more “stuff” is wasteful and damages the environment. Boomer not only creates a new, more environmentally friendly wishlist but also hosts a “den sale” of items that can be reused. Students will make an Earth-friendly wish and “den sale” list. Share the prompts below.

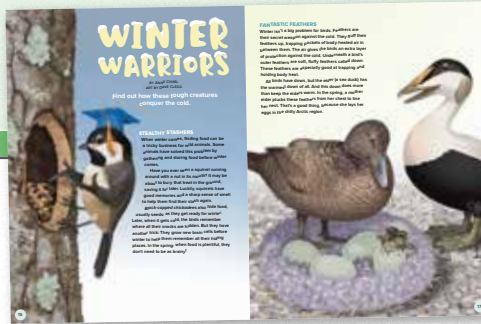
- Boomer’s new wishlist includes seeds and a birdhouse. What are some Earth-friendly items you might like to add to a wishlist?
- Wishlists don’t always have to have “things” on them. What adventures get you excited to go outdoors? How about an adventure hike with friends? Ice fishing? A rock-climbing class?
- We all have things tucked away that we don’t use anymore. What items do you have that you could sell or give away to someone else?

THAT’S A WRAP!

In **“Wrap It Green”** on **pages 28–29**, students learned how wasteful traditional gift wrapping can be. Have students tap into their creativity to wrap gifts in a more Earth-friendly way.

- Explore your home or classroom for items that could be used to wrap gifts creatively. Anything goes: paper bags, paper towel rolls, natural items, odd-shaped containers, magazines, comics, newspapers, etc.!
- Cut sponges into creative shapes (trees, stars, etc.) and dip in paint to decorate butcher paper for homemade wrapping paper.
- Have students share creatively designed gift wrap!





WINTER WARRIORS: SURVIVAL OF THE ... COLDEST?

In “Winter Warriors” on pages 16–21, you learned about some strategies animals use to survive winter. Some of these are so extreme, it’s surprising the animals survive at all! Review the winter strategies below and briefly explain

how the animals survive. The first one is completed for you.

EXAMPLE

Eider ducks lay eggs while spending winter in the Arctic. How do they stay warm and keep the chicks warm?

They have soft, fluffy feathers called down that hold body heat. They line their nests with these feathers.

- 1 Painted turtles breathe air but burrow into mud at the bottom of ponds during winter. How do they survive?

- 2 The Arctic hare grows a white coat as winter camouflage to hide from predators. What triggers that change?

- 3 Honey bees are active in the winter but stay inside their hive, working to keep the queen bee alive and healthy. How do they do this?

- 4 The wood frog doesn’t just slow down in the winter—it freezes almost completely, its heart stops beating, and it stops breathing until it thaws in the spring. How does it survive the deep freeze?

- 5 Polar bears are built for cold weather. Name two characteristics polar bears have that help them thrive and survive in the cold.

1. Because its body is on pause, the turtle needs less oxygen. Its skin takes in enough oxygen from the water to keep the turtle alive.
2. When the days get shorter, less light triggers their bodies to shed their brown summer coats and grow white ones.
3. The bees cluster around her in a “hug” and “shiver,” their flight muscles to make heat.
4. The frog’s liver makes a special “anti-freeze” that keeps the insides of its cells from freezing.
5. Any two of the three listed: two layers of fur, four inches of fat, bumps on feet for traction.

ANSWERS





SEA GRASS WORD SEARCH

In the article **"Secret Gardens"** on **pages 30–35**, you learned how seagrass meadows provide food and shelter and act as nurseries for sea life. Search for the hidden seagrass vocabulary words in the puzzle below (horizontally, vertically, diagonally).

ALGAE

NURSERY

GREEN TURTLE

SHELTER

MEADOW

CLIMATE

PROPELLER

LOBSTER

BONNETHEAD

OXYGEN

LARVAE

Y	D	O	C	R	Z	Q	Z	L	M	X	I	V	Q	S	J	O	L
A	L	G	A	E	Y	N	B	Y	Q	I	R	I	F	V	R	H	B
N	E	O	G	R	E	E	N	T	U	R	T	L	E	H	A	J	O
U	S	R	T	A	C	Y	P	R	O	P	E	L	L	E	R	R	N
R	C	E	Y	L	O	Y	D	C	H	S	H	E	L	T	E	R	N
S	L	N	A	O	O	Y	H	Q	K	X	U	W	G	U	G	L	E
E	I	A	U	S	X	B	R	X	M	Q	L	H	E	N	M	Q	T
R	M	F	R	M	T	Y	S	A	W	K	L	K	L	X	K	K	H
Y	A	Y	Y	V	Q	A	G	T	V	L	J	N	B	Q	U	Y	E
Y	Y	Z	V	B	A	X	R	E	E	Z	V	A	P	L	D	T	A
Q	E	Y	Q	R	L	E	B	A	N	R	H	P	J	A	L	G	D
J	O	K	P	O	A	Z	N	G	B	S	M	E	A	D	O	W	W





TREE TREATS

The holiday season is a fun time to decorate a tree. Why not decorate one with special treats for the wild animals in your yard or neighborhood?



- 1 Find an evergreen tree or bush growing outside that you can decorate. Gather some healthy treats to hang on the branches, such as orange slices, strings of cranberries, and pinecones spread with peanut butter and birdseed. Make a list of the decorations you chose:

- 2 Then watch your tree from a window or visit it each day to look for animals or signs of animals. Do you see birds or squirrels enjoying a snack? Or tracks around the tree that show who has visited? Write your observations below.

PHOTODISC

