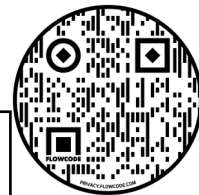


1

Bears, Whales, Mice - Oh my!

Great for 9-18 year olds

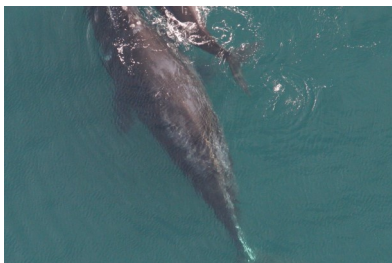


- Match each animal to their unique characteristic.
- Scan the QR Code and watch the video to discover the answers!
- Draw your favorite animal! Write one interesting fact about them. Bring your drawing to the next Zoom meeting to share. Tag us on social media with #4hsparkkit

Animal



Bear



Whale



Cow



Mouse



Platypus



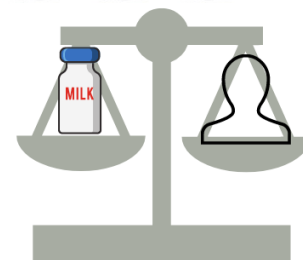
Kangaroo

Characteristic

1. Makes 6 to 7 gallons of milk a day



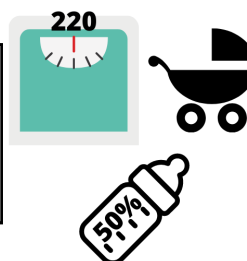
2. In two weeks, can make its own body weight in milk fat alone



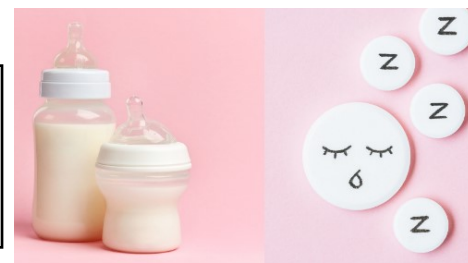
3. Makes two different kinds of milk at the same time for older and younger offspring



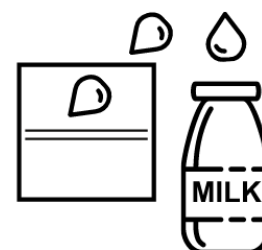
4. Offspring gain almost 220 pounds a day drinking milk that is 50% fat



5. Offspring are born and nursed during hibernation



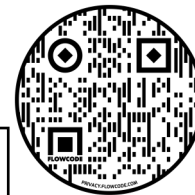
6. Secretes milk through skin pores on its belly



2

Got Milk? A Science Experiment!

Great for 9-18 year olds



- Find your favorite grown-up to help with this activity! This can get *messy* and requires a *microwave!*
- Scan the QR code and watch the video to learn more about the science behind what you are seeing!

Materials Needed:

- Powdered or liquid milk
- Measuring cup (not included in kit)
- Microwaveable bowl (not included in kit)
- Vinegar
- Measuring spoon (not included in kit)
- Plastic spoon
- Coffee filter
- Plastic cup
- Paper towels
- Markers

The Four H's

Use what you have learned in these hands-on activities to spark a conversation. We will talk about these topics together at the next Zoom meeting.

Instructions:

- Measure 1/4 cup of dry powdered milk and 1 cup of water.
- Mix powdered milk and water together in microwaveable bowl.
- If using liquid milk, skip the two previous steps. Measure 1 cup of liquid milk and pour into microwaveable bowl.
- Heat in microwave for 1 minute and 30 seconds.
 - Milk should be hot—not boiling!
- Add 4 tablespoons of vinegar.
- Stir milk + vinegar until milk cools with plastic spoon.
- Put the coffee filters in the plastic cup.
- Transfer floating solids to the coffee filter and plastic cup.
- Gently squeeze out extra liquid.
- Transfer solid to stack of two paper towels and gently pat to squeeze out extra liquid.
- Mold solid into a shape.
- Allow it to dry for 48 hours on two paper towels.
- Wash your microwaveable bowl and measuring cup and spoon.
- After it is dry, you can draw and color with markers.
- Enjoy! Bring your creation to the next Zoom meeting to share! You can also tag us on social media with #4hsparkkit to show your creation!



HEAD

If milk comes from mammals, then why do you think dairy alternatives, like soy and almond, are called milk?



HEART

Research how other cultures and people around the world use dairy products.



HANDS

Compare the milk science experiment results with milk that has different milk fat percentages (ex. whole vs. 1%).



HEALTH

Think of all the ways your family uses dairy products in daily recipes and special celebrations.

3

4-H Science Inquiry: Milk Magic

Great for 5-11 year olds

Thought that was cool? Check out the 4-H Science Inquiry: Milk Magic YouTube Video!

Materials Needed:

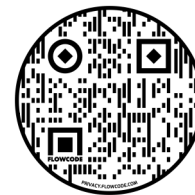
- Liquid milk (not included in kit)
- Bowl (not included in kit)
- Food coloring (not included in kit)
- Dish soap (not included in kit)



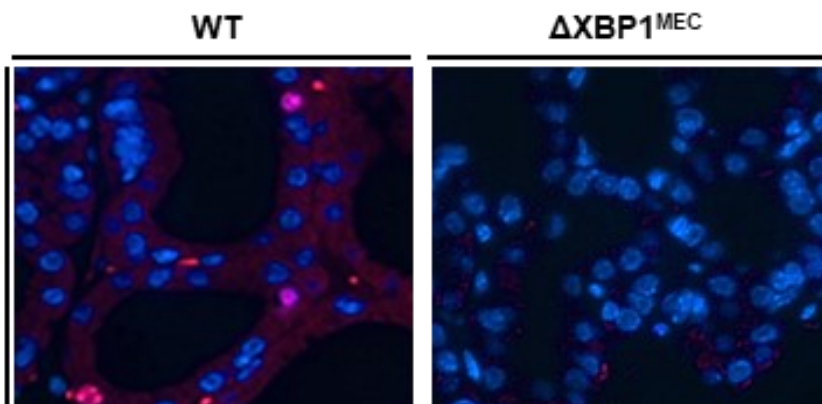
Think like an Animal Scientist!

Great for 14-18 year olds

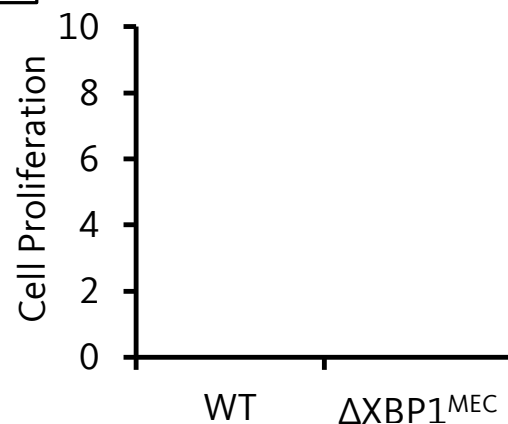
- Scan the QR code and watch the video to learn how animal scientists solve problems!
- Use the below figure and bar graphs to record your data.



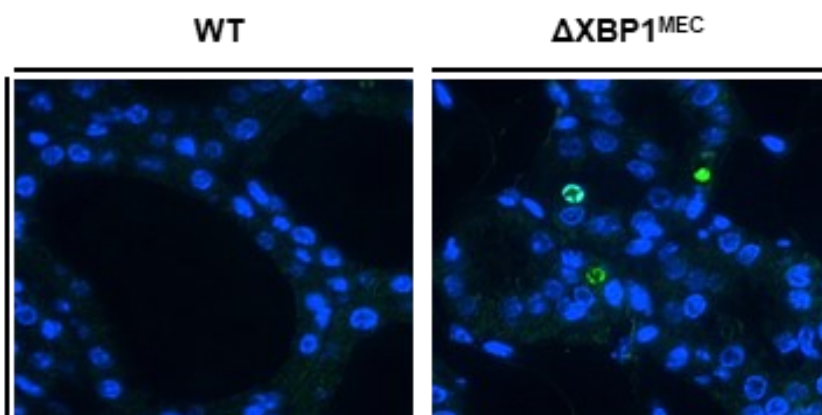
A



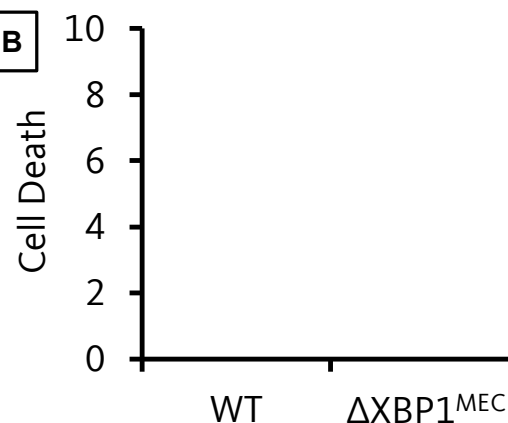
A



B



B



(Davis KR, et al. Endocrinology. 2016)

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Resources:

- www.discoverwildlife.com
- www.ncbi.nih.gov
- www.smithsonianmag.com
- www.adfg.alaska.gov
- www.pinterest.com

Milk 4-H Spark Kit authored by
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