Guess Who

Grade Level:

Grade 3

Engage

This activity is designed to start your students in recognizing themselves as scientists and thinking critically about problem-solving. The goal is to teach concepts through discovery and to encourage using scientific thought processes. As with all lessons provided, please feel free to adapt them according to your students' abilities. You may find it more successful to lead activities and discussions as a whole group as opposed to having your students' work in small groups. Certain scientific vocabulary may or may not be appropriate for your students' level of understanding. Take these ideas, make them your own and your students will have a greater chance at success.

How do different types of young animals look like their parents when they are born, and how do they look different?

1. Ask students to raise their hand if they have ever been told that they look like a parent, sibling, or other family member. Explain that everyone has something in common with their parents and other family members. Ask the students to think about why that may be.
2. Next, ask the students if they think adults and children look similar or different. What are some ways children look like adults? What are some ways they look different? If you see someone, how can you tell if they are an adult or a child?
3. Discuss with students that just as human children and adults have similarities and differences, the same is true for animal young and adults.

Explore

4. As a class, make one list of some animals that look similar to their parents when they are born and another list of animals that look different from their parents when they are born. As you are making the list, feel free to have a conversation about why students

are saying an animal looks similar or different. However, at this point, do not correct students if you feel that an animal should go in a different list.

5. Tell your students that they are going to research the animals in the list you made together to see if they were correct about which animals were similar and which were different. Assign each student a different animal from one of your lists. If you do not have enough animals in your list, see the list of suggested animals below. Feel free to add your own animals to the list. Have the students use the worksheet at the end of this document to help create a research project that will allow them to answer the question of whether the baby animal looks similar to or different from the adult animal.

- Monarch Butterfly
- Bull Frog
- Mallard Duck
- House cat
- Barn owl
- Mexican Gray Wolf
- Red Kangaroo
- Scarlet Macaw (parrot)
- White-tailed deer
- American Alligator
- Black rat snake
- Dragonfly
- Cheetah
- African elephant
- Ostrich
- Green Iguana
- Box turtle
- Emperor scorpion
- Pacific octopus
- Manta ray (stingray)
- Eastern tiger salamander
- Bornean orangutan
- Peafowl (peacock)
- Clownfish
- Ladybug

6. As each student researches their assigned animal, they should also find one picture of an adult and one picture of a baby.

Explain:

7. Show the pictures of the baby animals, one by one. As a class, students should guess which animal the baby is. Feel free to provide students with a list of all animals that were used so that they can have an easier time choosing the adult.
8. Once each baby animal is guessed correctly (or if the class gives up), show the class the picture of the adult. That student that researched the animal can explain their findings to the class of how the babies and adults are similar and different. If the class has any other similarities and differences to add, they may do so.

9. Revisit the original lists you created at the beginning of this lesson. Are there any animals that you would like to move to the other list? If so, the students should explain why.

Expand:

10. Discuss with students how some physical traits stay the same as an animal gets older and some change. For example, ducklings and ducks both have feathers, but the type of feathers they have changes as they get older.
11. Explain that some animals go through **metamorphosis**. This word refers to big changes that animals go through as they go from young to adult. This involves major changes in the shape of an animal. For example, a tadpole changes into a frog. The tadpoles lose their gills and tails and grow legs. Their whole bodies change.
12. Have the students think about the animals that were discussed in class. Which animals do they think go through metamorphosis?
13. Have the students pick two animals from the above list, or new animals of their choice, and have them create a list of the physical characteristics that change as the animal grows up.

Assess:

14. Have the students share with the class the list of traits that change for one of their animals.
15. Ask the class if they can think of any others to add to the list.
16. Discuss with the class what some of the reasons may be for these changes as an animal grows up.
17. Collect the students' worksheets.

Optional Extension Activity.

1. Before this lesson, ask the students to bring in a picture of themselves as a baby or toddler. Tell the students that they will be trying to guess each other's baby pictures so they should not share them with each other before class. Their names should not be on the front of the baby pictures. Hang up the pictures around the class prior to the lesson, and label each with a number. Feel free to add in your own baby picture.
2. Use your discretion to determine whether this activity may make any students feel uncomfortable. In particular, if you suspect you have a student that may not have a baby picture at home, you should not do this activity. Or adjust the activity to look at

baby/childhood pictures and current pictures of faculty and staff, if staff and faculty are willing to share their baby pictures.

3. After guessing who went with which baby picture, ask your students to discuss ways they have changed as they have been growing up.

Standards

Ohio Academic Content Standards
Grade 3 Life Science Topic: Behavior, Growth and Changes Offspring resemble their parents and each other

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Supplemental Materials

My Research Plan

1. What is my research question? Is it a good question?

How do different types of young animals look like their parents when they are born, and how do they look different?

2. How can I get my information?

3. What will I do with this information?

4. How will I know I did my job well?