

Noah's Landing in the Classroom

Interactive Ideas for Extending Your Visit

Classification Shuffle

Objective

In this activity, students will identify types of animals and note similarities and differences between animals.

Key Vocabulary

Classification

Mammals

Reptiles

Amphibians

Birds

Fish

Marsupials

Supplies

Classification Chart

Classification Table

Photo cards (Animal, Marsupial, and Mammal)

Construction paper shapes

Preparation

1. Based on the number of students in class, determine how to divide the class into teams. (4-5 students work well.)
2. Create a bag of cards for each team. They'll need a bag of animal cards, marsupial cards, and mammal cards. They will also need a bag of colored shapes. (Four shapes of a variety of colors.)
3. Print a copy of the "Classification Chart" for each team. You may also want to copy the chart on the whiteboard.

Step-by-Step

1. Divide the class into teams and explain that they are going to be competing to sort shapes and images based on their similarities.
2. In the first round, drop the bags of shapes on each table. Tell the students that they will have 60 seconds to divide the shapes into four groups. The trick is to discover how the papers should be sorted. With a call of, "Go!" the sorting begins.
3. After 60 seconds, call "Time!" and survey their work. Congratulate the teams that get it correct and clear the table.

The teacher says:

You may not have noticed but you were actually doing scientific work. When separating the shapes, you were placing them into groups



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based on their characteristics. All circles went together. All squares went together. This type of grouping is called "classification." Scientists place all living things into groups so that they are easy to study.

We classify things in all parts of our lives. Think about the last time you searched for a DVD at the store. You probably went to a specific section, like "Cartoons" or "Action." We group DVDs by the type of movie so that they are easier to find and sort.

In the same way, scientists classify all living things into different groups. Often, scientists can't agree on exactly how the animal kingdom should be divided. And, sometimes, animals are reclassified after we learn more about them. For now, we're going to look at some general groups of animals.

4. In the next round, give the students 60 seconds to sort the animals from their "Animal" bags into two groups. What separates the animals in the photos?
5. After three minutes, the leader calls, "Time!" and surveys the work. The kids should have separated the pictures into two piles: vertebrates and invertebrates.
6. Draw their attention to their classification chart and add "Invertebrates" and "Vertebrates" to the top of the chart. Can the students list characteristics of each?

The teacher says:

This one was actually a bit trickier. How do you look at all the animals in the world and divide them into just two groups? Scientists divide every animal into two main groups – invertebrates and vertebrates. Invertebrates are those animals without a backbone like insects. Vertebrates are animals with backbones. (*Point out a picture of an invertebrate.*)

As you look at these invertebrates, you can notice how they are different from mammals like us. First, they don't have a backbone. Instead, they have an exoskeleton which is like a skeleton on the outside or no skeleton at all. The exoskeleton protects the body and is made of a hard, waterproof substance called chitin. Some invertebrates actually shed their exoskeleton to grow larger.

For now, let's take all the invertebrates off the table.

7. In the next round, have the students focus on vertebrates. Tell them that they will be separating their cards into five groups. Give them 60 seconds to do their work.
8. When time is called, the kids should have separated the pictures into five piles: birds, reptiles, mammals, amphibians and fish. If not, explain to the kids how they might have sorted them. Have them brainstorm characteristics of each group.



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The teacher says:

Now, we're going to focus on mammals. There are three groups of mammals. One group has their babies in eggs. Can you give me an example? (*Echinea, duck-billed platypus.*) These mammals are called, "Prototheria."

The others have live births and are called Theria. Can you give an example of a mammal that has live birth?

(Have students write Prototheria and Theria on their charts.)

This group is divided into two groups: Marsupials and Placentals. Marsupial babies actually grow up in their mom's pouch. Now, let's test your marsupial knowledge. (*The students can add Marsupials and Placentals to their list.*)

9. Give the groups the piles of cards marked "Marsupials" and give them 30 secs to divide the pile into placentals and marsupials. How did they do?

The teacher says:

OK -- now, let's put aside the marsupials and you should be left with placental mammals. Did you know that scientists divide these even further? Different scientists divide the animal kingdom in different ways. We're going to divide it into 7 groups. (*As you list, write each name on the board and ask the students to write them on their chart.*)

They are:

- Artiodactyla (even toed – pigs, cows, deer, giraffe, hippos, etc.)
- Perissodactyla (odd toed) horses, rhino, tapir, etc.
- Rodentia (rats, guinea pigs)
- Carnivora (wolves, cats, etc.)
- Insectivora (hedgehogs, moles)
- Primates (monkeys, lemurs)
- Edentata (Sloths, armadillos)
- Lagomorpha (Rabbits, hares)

Lets look at the pile of cards in front of you. Can you divide them into the seven groups? Let's see!

10. Have the kids divide their cards into the seven groups. It's harder than it looks -- remember the tapir is an even toed ungulate. And weasels, civets and kinkajou are carnivores. When the kids are finished, check their work and reward their hard thinking.



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During Your Visit

Create a link between your classroom exercise and your field trip at Noah's Landing. Arm each student with a copy of the "Classification Table." As they explore the farm on their tour, ask them to write each animal's name under the group that it belongs to.

When the class returns, check the table and create a class list. Which animals were difficult? Which ones were easy?

