



Group and Categorize with Flight

Students will work in teams to practice their classification skills by studying animals that can and cannot fly.

LESSON PLAN

Learning Objectives:

The students will:

- Classify animals into groups of fliers, gliders, and ground animals.
- Develop a list of characteristics each group has in common.
- Research the adaptations animals have made in order to be able to fly.
- Redesign a human, using the data gained in research, so that he/she can fly.

Purpose:

Students will work in teams to practice their classification skills by studying animals that can and cannot fly.

Procedure:

1. Warm-up
 - a. Students should work in groups of three or four.
 - b. Give each group a collection of plastic animals or animal images. Instruct students to group the animals according to any criteria they select and complete the animals worksheet as a team.
 - c. After the groups have completed their classifications and worksheet, select one student from each group to explain what criteria were selected and how the animals were classified.
 - d. Allow other groups an opportunity to ask questions or challenge any of the classifications.
 - e. Then ask students to reclassify their animals into three groups 1) fliers, 2) gliders and 3) ground animals using the chart.

Grade Level: Pre-Kindergarten

Ohio Early Learning and Development Standards.

Cognitive and General Knowledge

Science/Life Science

Exploration of Living Things

Cognitive and General Knowledge

Mathematics/Algebra

Group and Categorize

Cognitive and General Knowledge

Mathematics/Number Sense

Number Sense and Counting

Cognitive and General Knowledge

Mathematics/Measurement and Data

Data Analysis

Materials Required:

- Animal images or plastic models of animals that include, but should not be limited to: swans, geese, robins, eagles, ducks, bats, flying lizards, flying fish, sea gulls, dragon flies, bees, pterodactyls, mosquitoes, butterflies, dogs, cats, lions, giraffes, elephants, horses, bears, snakes, sharks, turtles, frogs, owls, star fish, sponges, worms, etc.
- Student Worksheet
- Pencils
- Crayons and markers
- Scissors (Optional)
- Construction and tissue paper (Optional)
- Pipe cleaners (Optional)
- Clay (Optional)
- Toothpicks and Styrofoam (Optional)
- Ribbons, buttons and scraps of material (Optional)
- Tape or glue (Optional)



- f. Instruct students to count the number of animals within each group. Then, have students compare the wing length of fliers and gliders within and between both groups.
- g. After the groups have completed their classifications, have a different person present the group's findings to the class.
- h. Again, give other groups the opportunity to question or challenge.

2. *Activity*

- a. On Day 2, have students conduct research on animals that can fly and animals that can glide and why. A variety of resources, such as videos and web sites, as well as books and reference materials should be used.
- b. On Day 3, have students use the information they collected to redesign a human so that he/she can fly. There must be a description and justification for each change and adaptation made. Students also need to include a model of their flying human. This may be a poster, sculpture, diorama, mobile or any design of their choice.
- c. Have students present their "Flying Human" to the class.

3. *Wrap-up*

Students may wish to do one or more of the following:

- a) Present their "Flying Human" at a parent open house.
- b) Present "Flying Human" to another class or a special teacher
- c) Make a video tape of their "Flying Humans."
- d) Invite some pilots to critique their "Flying Humans."

Extensions:

- a. Design a game that would teach the principals of flight you learned in this unit.
- b. Write a children's book about animals that fly.
- c. Investigate myths on "How Birds Learned to Fly." Then write a myth of your own.

Resources/References:

<http://lessons.atozteacherstuff.com/281/animals-that-fly-or-do-not-fly/>

<https://study.com/academy/lesson/animals-that-fly-lesson-plan-for-elementary-school.html>

<https://www.brighthubeducation.com/pre-k-and-k-lesson-plans/10479-airplane-and-helicopter-activities-for-kindergarten/>



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STUDENT WORKSHEET

NAME: _____

Circle the animals that can fly

