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CHAPTER THREE – SIMILARITIES AND DIFFERENCES—SHAPES (Pages 33-43)

GENERAL INTRODUCTION

CURRICULUM APPLICATIONS

Language Arts: Visual discrimination for reading readiness, writing sentences that describe size, shape, and position.

Mathematics: Identify similar figures. Write numerals in the correct direction (5, 7, etc.).

Science: Recognize similarly shaped leaves, insects, or shells.

Social Studies: Read maps.

Enrichment Areas: Recognize shapes of road signs. Discern patterns in art.

TEACHING SUGGESTIONS

- Ask students to name the polygons and their properties as they explain their answers.
- Integrate these geometry concepts into your language arts program by discussing picture books.
- Model using the sentence structure of comparison (both ... and) and contrast (...but or ... next). Encourage students to speak and write using those terms and patterns.

Page 34: FINDING EQUAL SHAPES

LESSON

Introduction

Teacher Comment: **We have learned about polygons and solids. In these lessons you will describe similarities and differences in various shapes.**

Explaining the Objective

Teacher Comment: **If the sides and the angles of two shapes are exactly alike, the shapes are equal. An equal shape may be turned to a different position. In a group of shapes you will cross out any shape that is not equal to the first one.**

Conducting the Lesson

Teacher Comment: **Name the blue shape in the first box.**

Student Response: The blue polygon is a trapezoid.

Teacher Comment: **Which shapes are exactly the same shape as the blue trapezoid?**

Student Response: The red, purple, and green trapezoids are exactly like the blue trapezoid.

Teacher Comment: **Why is the yellow trapezoid not equal?**

FINDING EQUAL SHAPES

Cross out the shapes in each row that are not equal to the first one. An equal shape may be turned to a different position.

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Personal Application

Teacher Comment: **When do you need to think about to decide whether a living thing is a plant or an animal?**

Student Response: I need to know whether or not something is a plant or an animal to know what it needs to survive.

Page 98: DESCRIBING ANIMALS

LESSON

Introduction

Teacher Comment: **To understand what animals need to survive, we need to know whether it is warm- or cold-blooded. Warm-blooded animals make heat inside their bodies, can huddle together to stay warm, and have a better chance to survive in cold weather. Cold-blooded animals must get heat from their surroundings.**

Whether or not an animal has a backbone will tell how large an animal can grow. The backbone supports the weight of the animal. Only tiny animals have bodies that are supported by a stiff skin instead of a backbone.

Explaining the Objective

Teacher Comment: **In this lesson you will circle the picture of the animal I describe.**

Conducting the Lesson

Teacher Comment: **Look at the top row. Name these animals.**

Student Response: These animals are a beaver, a prairie dog, and a rabbit.

Teacher Comment: **Listen to the clues and name the animal that I describe. Since this animal is a mammal, it is warm-blooded and has a backbone. It is larger than a prairie dog. It builds its home, called a lodge, in rivers and streams that run through woods. It uses strong, sharp teeth to cut trees to build its home. It eats wood and other plants. It has a large, broad tail and webbed feet for easy swimming. It slaps its tail loudly on the surface of the water to warn others of danger.**

- Ask students to decide with their partners which animal has been described.

Teacher Comment: **Which animal did I describe?**

Student Response: That animal is a beaver.











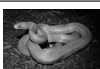




Teacher Comment: **Circle the picture of the beaver.**

Teacher Comment: **What clues let you know that the animal is a beaver?**

Student Response: I saw its large, flat tail, it's larger than the prairie dog, and it climbs out of the river to get wood to make its home.

DESCRIBING ANIMALS

Circle the picture of the animal that your teacher describes.*

| | | |
|--|--|--|
|  beaver |  prairie dog |  rabbit |
|  salmon |  shark |  tuna |
|  duck |  blue jay |  bat |
|  lizard |  snake |  alligator |
|  butterfly |  mosquito |  bee |

*Descriptions are available on page 19 of the free answer guide.