

CHILI PARLOR ACTIVITY II

MATHEMATICS: Ratios
SCIENCE: Measurement
LANGUAGE ARTS: Following directions

AIM: Students compute ratios and learn to reduce fractions.

BACKGROUND: Introduce students to the concept of ratio by asking them how many girls are in the class compared to boys. Explain to them that this relationship is a ratio, or proportion. As a class, discuss why and when ratios might be helpful. What information do ratios give?

BEFORE PLAYING

Discussion: As a class, define a ratio. (The relationship in quantity or size of two or more objects.) When do we use ratios? Have students list some common examples of ratios. (Answers will vary. Examples: the ratio of A's to B's on a test, the ratio of sixth grade students to fifth graders, and so on.)

AFTER PLAYING

Discussion: Ask students look at their answers from the Before Reading Worksheet. Have each student compute the ratio of pretzels to M&Ms, of pretzels to Raisins, and of Raisins to M&Ms. Which ratio is largest? Which ratio is smallest? (Answers will vary.)

ASSESSMENT: Check students' answers to the riddle on the After Playing Worksheet.

RESOURCES

25 Super Cool Math Board Games, by Lorraine Hopping Egan (Scholastic, 1999, \$12.95, ISBN 0-59037-872-4). Reproducible board games build essential math skills. Topics include multiplication, division, fractions, estimation, and more. To order, call 1-800-SCHOLASTIC.

<http://www.figurethis.org/challenges/challenge/index.htm>

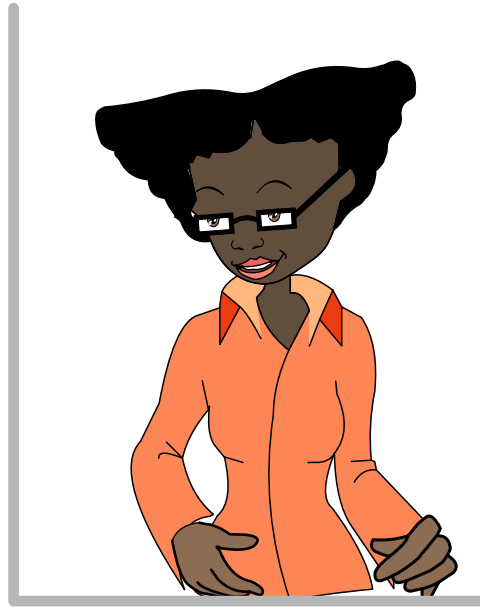
Funded by the National Science Foundation and the Department of Education, this site will challenge your students to solve word problems as they master decimals, fractions, ratios, measurement, algebra, geometry, statistics, and probability.

ANSWERS

Before Playing, Worksheet: (Answers will vary.)

After Playing, Worksheet: (Because THEY DON'T HAVE WINGS.)

Site Seeking in Chicago, Worksheet: (7a. $\frac{3}{10}$. 7b. $\frac{1}{6}$.)



CHILI PARLOR ACTIVITY II

CONNECT TO YOUR CURRICULUM

This activity can help you meet these National Standards:

Mathematics:

- Use models, benchmarks, and equivalent forms to judge the size of fractions
- Model problem situations with objects and use representations such as graphs, tables, and equations to draw conclusions
- Understand such attributes as length, area, weight, volume, and size of angle and select the appropriate type of unit for measuring each attribute
- Understand the need for measuring with standard units and become familiar with standard units in the customary and metric systems
- Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, temperature, and the size of angles

Science:

- Systems, order, and organization
- Change, constancy, and measurement
- Abilities necessary to do scientific inquiry

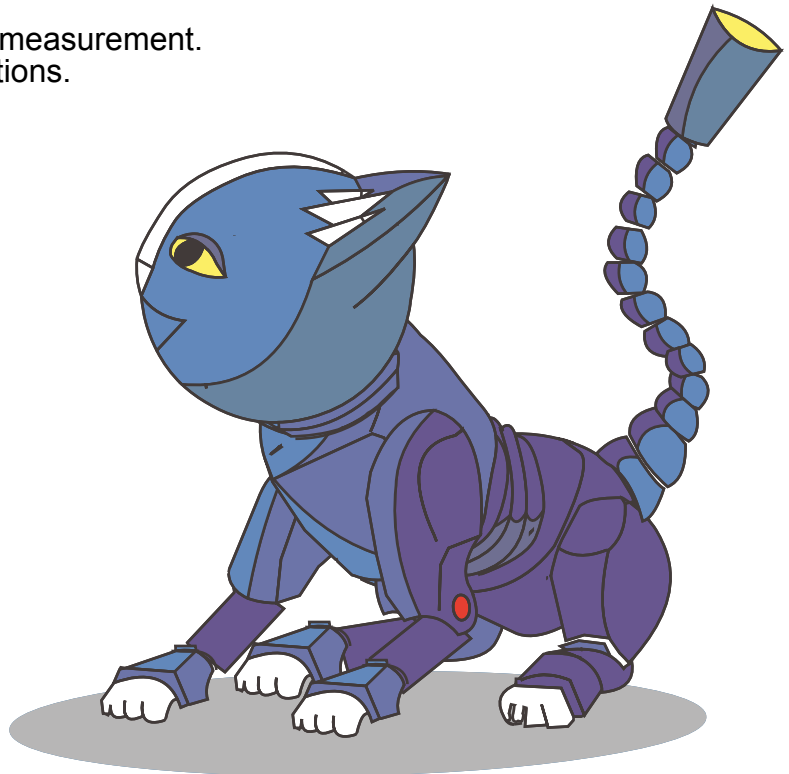
CURRICULUM AREAS

Math: fractions; ratios; volume; measurement.

Language Arts: following directions.

Science: measuring.

Technology: computer science



CHILI PARLOR ACTIVITY II

(Before Playing)

Name: _____

Date: _____

Make “Munchies”

1. Break into groups of three.
2. Gather the following materials:
 - Raisins
 - M&Ms
 - Pretzels
 - Bowl
 - Spoon
 - 3 small paper cups
3. Measure $\frac{1}{2}$ cup raisins and pour them into the bowl.
4. Repeat Step 3 with the M&M candies.
5. Add $\frac{1}{4}$ cup pretzels to the bowl.
6. Stir the ingredients.
7. Fill the three cups with the “Munchie” mix. Keep one cup and give the others to each of your partners.
8. Answer the questions below.



Questions:

1. How many raisins are in your cup? _____
2. How many M&M candies are in the cup? _____
3. How many pretzels do you have? _____
4. Add up the number of raisins, M&M candies, and pretzels to see how many pieces of food are in your cup. What is the total? _____
5. Write a ratio, or a fraction, comparing the number of raisins to the total.

6. Write a ratio comparing the number of M&Ms to the total. _____
7. Write a ratio comparing the number of pretzels to the total. _____
8. What do you have the most of: raisins, M&Ms, or pretzels? _____



CHILI PARLOR ACTIVITY II

(After Playing Worksheet)

Name: _____

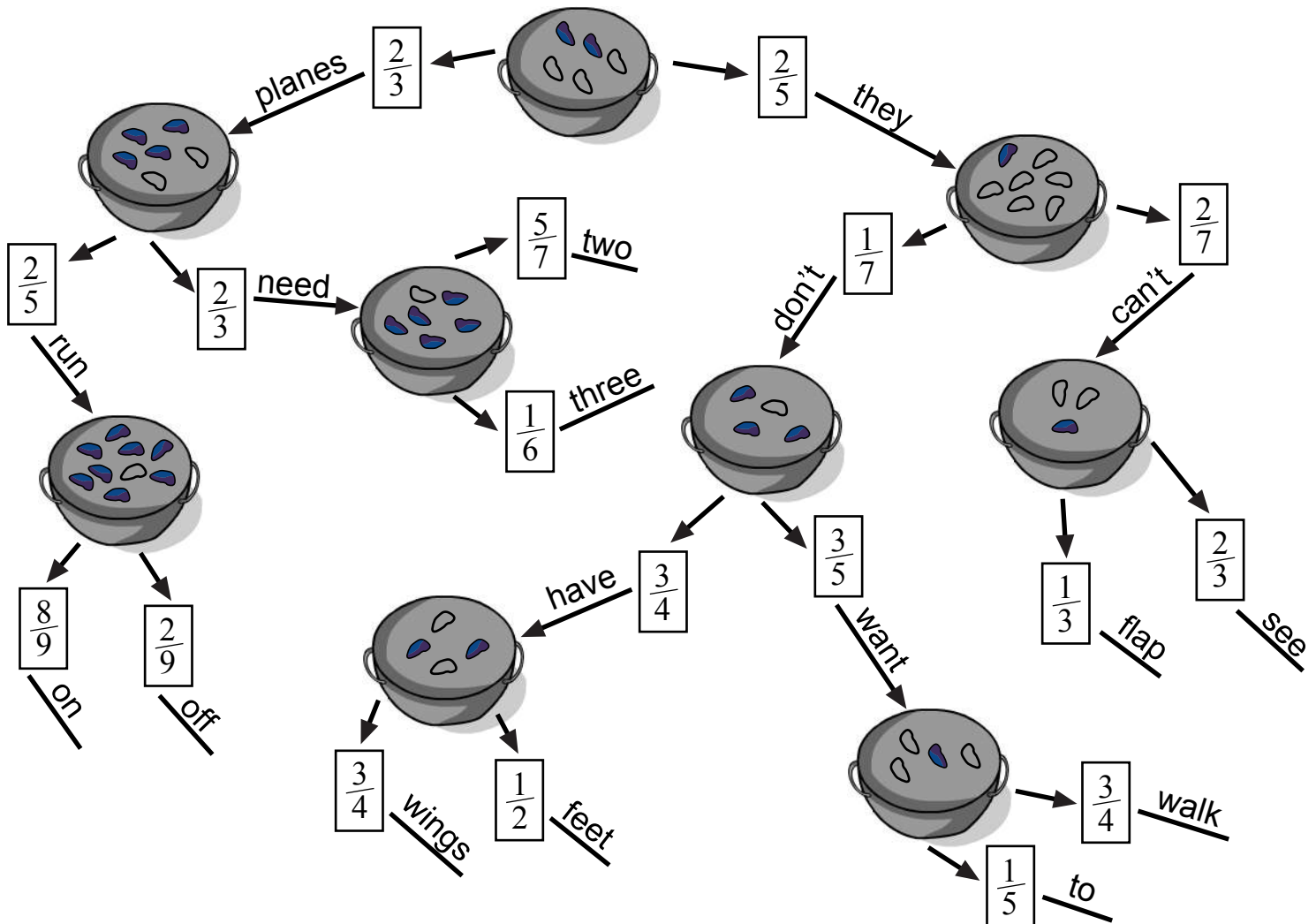
Date: _____

Q: Why do airplanes fly?

Solve this riddle by following the maze below.

Directions:

1. Begin with the bowl at the top.
2. Figure out how many black beans there are compared to all of the beans in the bowl.
3. Choose the path with the correct answer and write the word in the blanks at the bottom of the page.
4. Follow the correct path until you have filled in all four blanks.



Answer: Because _____

SA-3b.2