**Materials Needed:**

* Manipulatives-at least ten different colored objects such as tiles or candy for each child
* Paper and colored pencils or crayons
* Paper and pencil · A whiteboard
* Copies of practice sheets and assessments provided

**Objective:** The students will learn what a common fraction and a fraction bar are and the numerator and denominator of a fraction. The students will learn how to draw shapes, divide them into equal parts, and how to write a fraction for given parts.

**Instructional Strategy:** Provide visual tools

**Process Standards:**

* Goal 3.3 develop and apply strategies based on one’s own experience in preventing or solving problems

**Content Standards:**

**Description:** This lesson allows the students to learn common fractions by using manipulatives and drawing and using the practice sheets, the word problems, the assessments, and the extensions provided.

**Classroom Component:**

* + Define fraction to the students. Tell the students that fraction means a part or a portion of something. Use pizza or chocolate bars as an example. Stress the importance of equal parts.
  + Write the word fraction and its definition on the board.
  + Draw four squares on the board and divide them into four equal parts. Take the opportunity to divide each square differently, such as vertically, horizontally, and using an X.
  + Shade one part of the first square and tell the students that 1/4th of the square is shaded.
  + Explain to the students that there are four equal parts and one out of the four parts are shaded, thus 1/4th.
  + Tell the students that the bottom number represents the number of all of the parts and the top number represents the shaded part.
  + Tell the student that the line between or separating the numbers is a fraction bar.
  + Explain to the students that three out of four parts of the square is not shaded and the fraction for the parts not shaded is 3/4ths.
  + Tell the students that the bottom number represents the number of all of the parts and the top number represents the parts not shaded.
  + Tell the students that the top number of the fraction is the numerator and the bottom number is the denominator.
  + Label the numerator and denominator of one of the fractions written on the board (1/4 – N/D.) To help the students to remember the placement of the words tell them the top number is N for North, thus Numerator and the bottom number is D for Down, thus denominator.
  + Proceed with the other squares or shapes on the board as you did with the first and shade different amounts at random.
  + Ask the students for the fraction of the shaded and non-shaded parts of the squares or shapes.
  + For extra practice use different shapes that can be divided equally.
  + Pass out the manipulatives to the students.
  + Have the students to group the manipulatives into groups of four, etc…on their paper and to write the fraction for the given part.
  + If manipulatives are not available have the students to draw a square or another shape that can be equally divided and to color or shade parts of the shape. Write the fraction next to the shape.
  + Check for comprehension.
  + Do this several times with random fractions for the different colors or shaded parts.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Fun With Fractions**

A fraction is a part or a portion of something. Look at the square below. The fraction for the shaded part of the square is ¼. That means one out of the four parts is shaded. The fraction for the parts **not** shaded is ¾. That means three out of the four parts are not shaded. The top number of a fraction is the numerator and the bottom number is the denominator.

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Numerator or N Shaded: 1/4

Denominator D Not Shaded: 3/4

Write the fraction for the shaded parts and the parts not shaded of the shapes on the line provided.

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Shaded: \_\_\_\_\_\_\_\_ Not Shaded: \_\_\_\_\_\_\_\_\_

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Shaded: \_\_\_\_\_\_\_ Not Shaded \_\_\_\_\_\_\_\_\_

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**Practice With Fractions**

Write the fraction for the shaded parts of the each shape. Write the fraction on the line below the shape.

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Write the fraction for the parts of the shape that are **not** shaded. Write the fraction on the line below the shape.

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**Fraction Quick Check**

Write the fraction for the parts of the shape that are shaded and not shaded on the lines provided.

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Shaded: \_\_\_\_\_ Not Shaded: \_\_\_\_\_

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Shaded: \_\_\_\_\_ Not Shaded: \_\_\_\_\_

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Shaded: \_\_\_\_\_ Not Shaded: \_\_\_\_\_

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Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Fraction Assessment #2**

* Draw a square and divide it into four equal parts. Shade 3/4ths of the square.
* Draw a rectangle and divide it into six equal parts. Shade 3/6ths of the rectangle.
* Draw a circle and divide it into four equal parts. Shade 2/4ths of the circle.
* Draw a circle and divide it into three equal parts. Shade 1/3rd of the circle.
* Choose a shape that can be divided equally and divide it into equal parts. Shade two parts of the shape and write a fraction for the part(s) shaded and the part(s) **not** shaded on the lines below.

Shaded: \_\_\_\_\_\_\_\_\_\_ Not Shaded: \_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Word Problems**

* Mike has five pieces of candy, four of the candies are hard candy, and one piece is gum. What is the fraction for the hard candy? What is the fraction for the gum?
* Greg has eight dogs and four of the dogs are brown, one dog is white, and three of the dogs are black. What is the fraction for the brown dogs? What is the fraction for the white dog? What is the fraction for the black dogs?
* Sharon has ten cats and she gave away five cats. What is the fraction for the cats she gave away? What is the fraction for the cats she kept?
* Lindy has twelve sheets of paper four sheets are white, four sheets are blue, and four sheets are red. What is the fraction for the white sheets of paper? What is the fraction for the blue sheets of paper? What is the fraction for the red sheets of paper?
* Heather has ten pieces of gum and she gives away eight pieces. What is the fraction for the pieces of gum she gave away? What is the fraction for the pieces of gum she kept?

Fractions Scoring Guide for Assessment #1 and #2

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 4 | 3 | 2 | 1 |
| Student showed 100% proficiency. | Student showed 80% proficiency. | Student showed 60% proficiency. | Student showed less than 60% proficiency. |

Student Self-Assessment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| I can shade a fraction. | http://www.successlink.org/lessons/5000/5452/gg1163.1.jpg | http://www.successlink.org/lessons/5000/5452/gg1163.3.jpg |
| I can write a fraction. | http://www.successlink.org/lessons/5000/5452/gg1163.1.jpg | http://www.successlink.org/lessons/5000/5452/gg1163.3.jpg |
| I know what a numerator is. | http://www.successlink.org/lessons/5000/5452/gg1163.1.jpg | http://www.successlink.org/lessons/5000/5452/gg1163.3.jpg |
| I know what a denominator is. | http://www.successlink.org/lessons/5000/5452/gg1163.1.jpg | http://www.successlink.org/lessons/5000/5452/gg1163.3.jpg |
| I understand fractions. | http://www.successlink.org/lessons/5000/5452/gg1163.1.jpg | http://www.successlink.org/lessons/5000/5452/gg1163.3.jpg |

**Accommodations:**

* + Modify the practice sheets and assessment accordingly.
  + Assign a buddy with students that need accommodation.
  + Have the students to show you a set of objects or draw a set for given fractions.

Differentiation

* + Have the students to write about fractions in their math journals.
  + Orally assess the students while using the manipulatives.
  + Use the word problems provided to use with the lesson or for extra practice.
  + Draw several shapes on the board, divide them equally, and shade them at random. Have the students to pick a shape and write the fractions for the shaded parts and the parts not shaded, then have them to tell how they figured out the answers.

**Suggested Websites:**

<http://www.emints.org/ethemes/resources/S00000059.shtml>

[www.abcteach.com](http://www.abcteach.com/)

<http://www.aaamath.com/fra.html>

<http://src.scholastic.com/ecatalog/search_results_quickfind.asp?UID=FFC2B3E1711F4AB595B00EAB6393B45B&subt=0&mode=new&type=Keyword&criteria=Fractions&x=11&y=6>