BLOOMSM4TH

Makes Maths Fun

Level 3

FRACTIONS & DECIMALS

Bloomsmath is a comprehensive mathematics program which provides a fun way for every student to be learning to the best of their ability.

By Rachel McCann (B.Teach; B.Ed Hons; M.ED (Special Ed.)

BLOOMSM4TH Makes Maths Fun

Level 3

Fractions & Decimals

Level 3 is designed for students in their third year at school often called Year 2. The Fractions and Decimals strand allows students to describe and model halves and quarters of objects and collections.

Knowledge: Students will partition circles and rectangles into 2, 3, or 4 equal parts which will be described as 1/2s, 1/3s, 1/4s, half of, a third of and a whole as two halves, three thirds or four fourths.

Students who demonstrate proficiency in this activity move on to Comprehension.

STOP

Students stop here as they require additional teacher support to master this activity.

Comprehension: Students will play a game where they receive 1/4, 1/3 and 1/2 pieces and must put them together to see who has the most at the end to discover that 2/4 = 1/2 and 1/4 is less than 1/3.

Students who demonstrate proficiency in this activity move on to Application.

STOP

Students stop here if time has run out or they require additional support with this activity.

Application: Students will use a 100 square to find fractions for multiple fractions such as 3/4 and 2/3 and their equivalent decimal.

Students who demonstrate proficiency in this activity move on to Analysis.

STOP

Students stop here if time has run out or they require additional support with this activity.

Analysis: Students will make four identical houses from one sheet of paper using 4 large and 4 small rectangles and 4 triangles.

Students who demonstrate proficiency in this activity move on to Synthesis.

STOP

Students stop here if time has run out or they require additional support with this activity.

Synthesis: Students will divide shapes up so that they can recognise that equal shares of identical wholes need not have the same shape.

Evaluation: Suggested questions provide a starting point for discussions related to Fractions & Decimals.

Students may complete more or fewer activities for each learning outcome depending on the time allocated and their strength in the area being covered.

All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

Name: _____

Halves, Thirds and Quarters

Colour each shape using the notiation and name given.

Notation & Name	Colour-In
1/2 One Half	
1/3 One Third	
1/4 One Quarter	
1 A Whole	

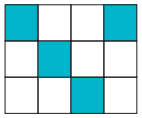
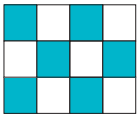
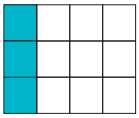
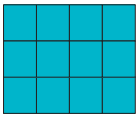
Notation & Name	Colour-In
2/3 Two Thirds	
2/4 Two Quarters	
3/3 Three Thirds	
4/4 Four Quarters	

1. Give another name for two quarters (2/4).

2. How else could you say three thirds (3/3)?

3. How many halves make a whole?

Match equivalent fractions and decimals.

			
Half	Quarter	Third	Whole
			
1.0	0.25	0.33	0.50

 Let's Try This Again

 Progress To Comprehension

FD 3 KN

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Fractions & Decimals - Level 3 - Students will describe and model halves, quarters, thirds and whole.

BLOOMSMATH

Name: _____

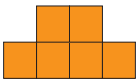
Squares

You will need:

A blank die marked with 1/4, 1/3, 1/2, quarter, third and half.
A coloured pencil.
2 Players.

How to play:

1. Each player rolls the die and colours that many pieces on their squares.

1/4 quarter	
1/3 third	
1/2 half	

2. The first to colour all 8 of their squares wins.

Player 1	Player 2

Let's Try This Again

Progress To Application

Name: ________________

100 Fractions And Decimals

You will need:

A regular die
A coloured pencil.

What To Do:

1. Roll the die once for the number in the tens column and a second time for the number in the ones column.
2. Record the number created and colour in that many boxes.
3. Convert the number of squares coloured into a fraction and decimal.
4. If the same two digit number is rolled twice roll again.

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

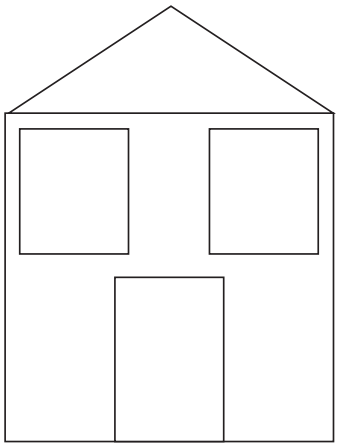
Roll 1 __ Roll 2 __
Colour __ __ squares
Fraction: ____/100
Decimal: 0.____

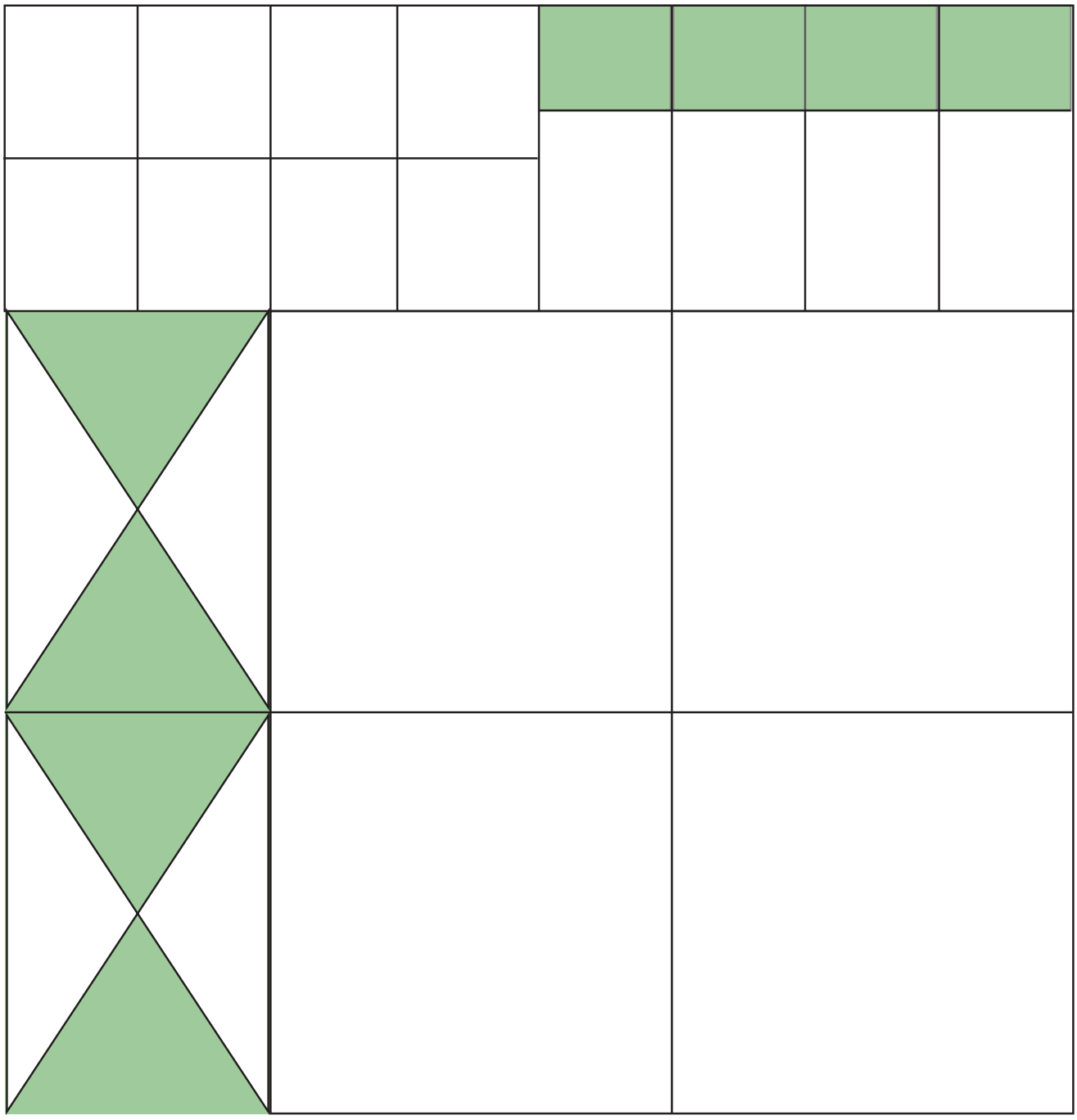
Let's Try This Again   Progress To Analysis

Name: _____

Building Houses

Cut out the shapes below to create 4 identical houses.
Each will use 1/4 of the page. Disregard green pieces.





Let's Try This Again

Progress To Synthesis

FD 3 AN

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Fractions & Decimals - Level 3 - Students will describe and model halves, quarters, thirds and whole.

BLOOMSMATH

Name: _____

Fractions and Decimals From Memory

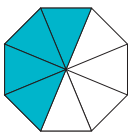
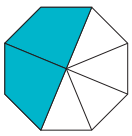
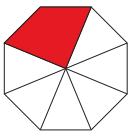
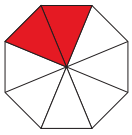
You will need:

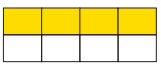
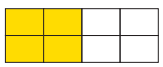
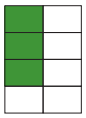
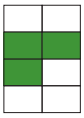
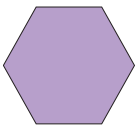
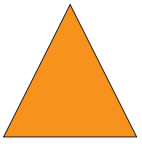
The cards below copied onto cardboard and cut out.
At least 2 players.

What To Do:

1. Take it in turns to select 2 cards.
2. Turn the cards over and if they are equivalent fractions keep them and have another turn until the 2 cards do not match and it is the other player's turn.

1/2	Half	0.5	1/4	Quarter	0.25
1/3	Third	0.33	1	Whole	1.0

Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation

Fractions & Decimals - Level 3 - Students will describe and model halves, quarters, thirds and whole.

BLOOMSMATH


Let's Try This Again


Progress To Evaluation

Fractions and Decimals Discussion

The following questions and activities are provided as a starting point for fun discussions related to Fractions and Decimals. During these conversations students will have an opportunity to use appropriate mathematical language in its correct context, to engage in reflection on the Fractions and Decimals activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.

Set up varying numbers of hoops on the floor and ask students if they can divide evenly into that number of hoops. They can then identify which numbers are and are not divisible into halves, quarters, thirds etc.

Divide pancakes into halves, thirds and quarters and demonstrate that 2 quarters equal a half, that a third is larger than a quarter, that 2 thirds is larger than a half etc and that many smaller pieces can be put together to make a half, third or quarter.

Using a bag of sweets have students work out the cost of buying multiple sweets and the number of sweets they can purchase if given a certain amount of money. Keep changing the price of the sweets for tables students know ie 2c, 3c, 5c and 10c.

Divide the class into 2 teams and give each team 5 blank 100 squares and 2 dice. Students take it in turns to roll the dice and colour in that many squares on the grid. The first team to 500 wins. Demonstrate the equivalent fraction and decimal for each number rolled.

Give students half a piece of A4 paper and see if they can build 4 identical houses from that piece of paper. How can they be sure each house is 1/4 of the paper sheet?