



Makes Maths Fun

Level 2

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.))

## Fractions & Decimals

Level 2 is designed for students in their second year at school often called Year 1. The Fractions and Decimals strand allows students to describe and model halves and quarters of objects and collections.

**Knowledge:** Students are given a number of different shapes or collections of objects and must colour or circle a  $\frac{1}{2}$ ;  $\frac{1}{4}$  or whole of given shapes.



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



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

**Comprehension:** Students identify the groups which have been fairly shared into halves and quarters and those which have been shared unfairly.



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



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

**Application:** Students answer word problems about various groups of objects which they must divide into halves and quarters.



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



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

**Analysis:** Students are shown the comparison between fractions and decimals and must match various decimals with their equivalent fraction such as  $1.0 = \text{Whole}$ ,  $0.5 = \frac{1}{2}$  and  $0.25 = \frac{1}{4}$ .



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



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

**Synthesis:** Students use the fraction spinner provided to play the Fraction and Decimal Game where fractions are accumulated until one play makes 10 wholes.

**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.

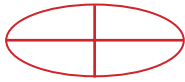


All students should participate in the Evaluation discussion to encourage the use of mathematical language, logical reasoning and reflection on that which they have completed.

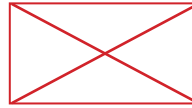
Name: \_\_\_\_\_

# Whole, half and quarters

Colour the given portion of each shape.



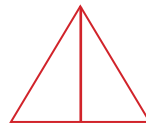
Half ( $\frac{1}{2}$ )



Quarter ( $\frac{1}{4}$ )



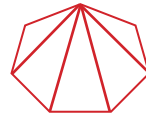
Whole (1)



Half ( $\frac{1}{2}$ )



Quarter ( $\frac{1}{4}$ )



Whole (1)



Half ( $\frac{1}{2}$ )



Quarter ( $\frac{1}{4}$ )



Quarter ( $\frac{1}{4}$ )



Half ( $\frac{1}{2}$ )

Circle the given portion of each set of objects.



Half ( $\frac{1}{2}$ )



Quarter ( $\frac{1}{4}$ )



Whole (1)



Half ( $\frac{1}{2}$ )



Quarter ( $\frac{1}{4}$ )



Whole (1)



Half ( $\frac{1}{2}$ )



Quarter ( $\frac{1}{4}$ )



Quarter ( $\frac{1}{4}$ )



Half ( $\frac{1}{2}$ )



Let's Try This Again



Progress To Comprehension

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

# Fair and Unfair Portions

Choose whether these portions are fair or unfair.



Quarter ( $\frac{1}{4}$ )  
Fair or Unfair



Quarter ( $\frac{1}{4}$ )  
Fair or Unfair



Half ( $\frac{1}{2}$ )  
Fair or Unfair



Half ( $\frac{1}{2}$ )  
Fair or Unfair



Quarter ( $\frac{1}{4}$ )  
Fair or Unfair



Half ( $\frac{1}{2}$ )  
Fair or Unfair



Half ( $\frac{1}{2}$ )  
Fair or Unfair



Quarter ( $\frac{1}{4}$ )  
Fair or Unfair

Use the stars to help you divide each group into a fair half ( $\frac{1}{2}$ ) and a fair quarter ( $\frac{1}{4}$ ) and complete the equation next to it.



Half of 4 =  $\frac{1}{2} \times 4 =$  \_\_\_\_\_  
A quarter of 4 =  $\frac{1}{4} \times 4 =$  \_\_\_\_\_



Half of 8 =  $\frac{1}{2} \times 8 =$  \_\_\_\_\_  
A quarter of 8 =  $\frac{1}{4} \times 8 =$  \_\_\_\_\_



Half of 4 =  $\frac{1}{2} \times 4 =$  \_\_\_\_\_  
A quarter of 4 =  $\frac{1}{4} \times 4 =$  \_\_\_\_\_



Let's Try This Again



Progress To Application

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

# Dividing Groups With Word Problems

Answer the following half ( $\frac{1}{2}$ ) and quarter ( $\frac{1}{4}$ ) fractions word problems.

1. Blane had 10 sweets and wanted to share them with his sister. How many does each get if they are shared the sweets fairly?



Working:	Answer:
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2. If half of Jim's pocket money is \$5 how much is all of his pocket money?



Working:	Answer:
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3. Wendy bought 8 cupcakes for her and 3 friends. How many cupcakes will each person get?



Working:	Answer:
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4. Ben bought a quarter of a watermelon for \$4. How much does the whole watermelon cost?



Working:	Answer:
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Fractions & Decimals - Level 2 - Students will describe & model a whole, halves & quarters.

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation



Let's Try This Again

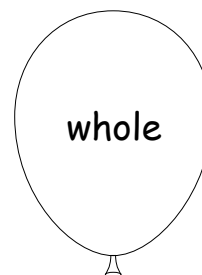
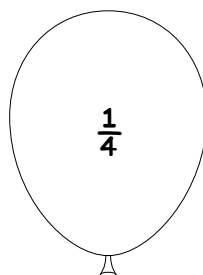
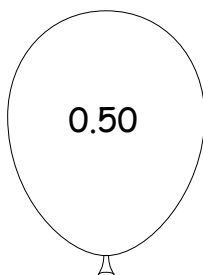
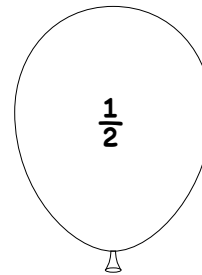
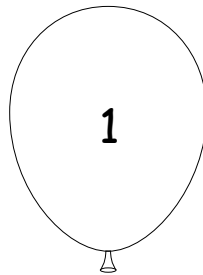
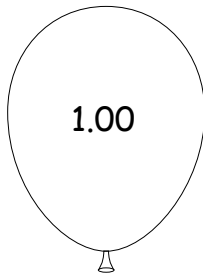
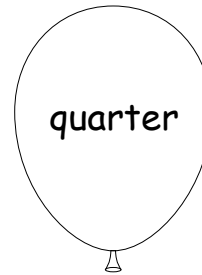
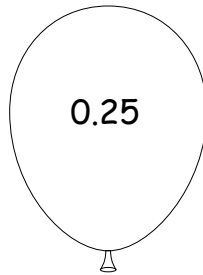
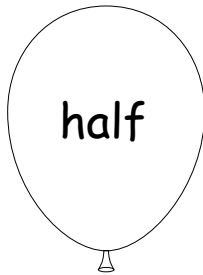
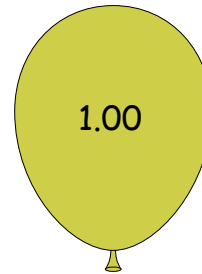
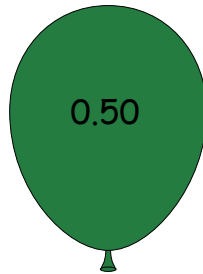
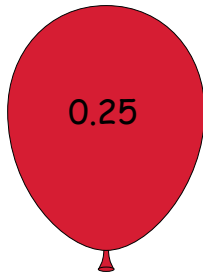


Progress To Analysis

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

# Equivalent Balloons

Colour each fraction to match its equivalent decimal.



Knowledge  
Comprehension  
Application  
Analysis  
Synthesis  
Evaluation

Fractions & Decimals - Level 2 - Students will describe & model a whole, halves & quarters.



Let's Try This Again



Progress To Synthesis

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

# Fraction and Decimal Game

## You Will Need:

One Spinner

A Split Pin

One Hand

A Scoring Sheet

## How To Play:

1. Attach the hand to the spinner using the split pin.
2. Players take it in turn to spin and add their score.
3. The first player to score 5 wins.

Player 1	Player 2	Player 3	Player 4

Knowledge  
Comprehension  
Application  
Analysis  
Synthesis  
Evaluation

Fractions & Decimals - Level 2 - Students will describe & model a whole, halves & quarters.



Let's Try This Again



Progress To Evaluation

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

# Fraction and Decimal Game Spinner



Let's Try This Again



Progress To Evaluation

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

Fractions & Decimals - Level 2 - Students will describe & model a whole, halves & quarters.





# Fractions & Decimals Discussion

The following questions and activities are provide as a starting point for fun discussions related to Fractions & 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 & Decimals activities they have completed and to use logical reasoning to tie their in-class mathematics to its everyday context.



Share a block of chocolate between students and have them calculate how many pieces they will get if they were to get half the block, a quarter of the block and then fractions of 16, 8, 4 and 2 pieces.



Ask students whether it is possible for students to receive a "bigger half" or a "larger quarter" and discuss what the correct terminology for this may be.



Ask students what they do if they are sharing something such as the previous block of chocolate and there are not enough pieces or too many pieces. How can they make sure it is shared evenly.



Discuss whether it is easier to read words, fractions or decimals for whole, half and quarter and why we need so many different ways of writing the same thing.



Look at the fact that half is  $\frac{1}{2}$  and quarter is  $\frac{1}{4}$  and what fractions would be used for an eighth, tenth etc and the equivalent decimals for these.

