Class: Second level
Lesson: Decimal fractions


| Learning Outcomes Pupils will: | Learning Activities Pupils will: | Teaching \& Learning Approaches, Organisation/Timing | Resources | Assessment |
| :---: | :---: | :---: | :---: | :---: |
| Pupils will know that decimal fractions are used to represent quantity. <br> Pupils will know that decimal fractions can be used to represent numbers less than 1 and more than 1. <br> Pupils will know that 0.1 equals 1/10. | Introduction: <br> Ask pupils what they know about decimal fractions. Have they used in class? Where are we most likely to use decimal fractions? - money, measure length in m and cm Development: <br> Pupils split into 6 groups. <br> Group A Will be working on decimal fractions as expressed on a number line. Group B Will be using fraction sticks to reinforce the relationship between fractions and decimal fractions. <br> Group A <br> Each group to lay out 10 m measuring tape (discuss the different standard of measure on each side, emphasise the need to use the side divided into groups of 100). Draw attention to the red whole metre numbers and the fact that each metre is divided into 100 equal parts). Establish each cm is $1 / 100$ of 1 metre, each 10 cm is $1 / 10$ of a metre. <br> Ask pupils to find 0.5 m . Would this be closer to zero or to $1.0 .5=1 / 2$. <br> Ask pupils to find other decimal fractions less than 1. Ask them to write the decimal fraction next to the number line in chalk. Do the same with numbers greater than 1. <br> Group B <br> Using fraction sticks. Pupils investigate bag contents and asked to find 2 halves, find $101 / 10$ s. Using sticks as reference draw 1 whole with playground chalk. How many $1 / 10$ s make 1 whole, how many $1 / 10$ s make $1 / 2$. Write fraction and decimal fraction on ground. <br> Using chalk mark to represent 1 whole and fraction sticks to rep $1 / 10$ s (or equivalent) "Show Me - 0.9, 2.5..... <br> Swap over groups. <br> Conclusion: What is the difference between a fraction and a decimal fraction? Can you suggest when fractions more helpful than decimal fractions and vice versa? Share one thing you learned today. Is there something you know how to do now you didn't before. | 5 minutes <br> Whole class <br> Active learning, discussion <br> 15 minutes <br> 3 Groups <br> Active learning, peer support, group working <br> 15 minutes <br> 3 Groups <br> Active learning, peer support, group working <br> 5 minutes <br> Active learning, collaboration | 10 m tape measures <br> chalk <br> Fraction sticks <br> chalk | Focus <br> Relationship between fractions <br> and decimal fractions <br> Method/s <br> Notes on observation grid. Photographs <br> Assessor/s <br> Class teacher <br> Pupils <br> All |

## Introduction:

Ask pupils what they know about decimal fractions. Have they used in class? Where are we most likely to use decimal fractions? - money, measure length in m and cm Development:
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## Group A

Each group to lay out 10 m measuring tape (discuss the different standard of measure on each side, emphasise the need to use the side divided into groups of 100). Draw attention to the red whole metre numbers and the fact that each metre is divided into 100 equal parts). Establish each cm is $1 / 100$ of 1 metre, each 10 cm is $1 / 10$ of a metre.
Ask pupils to find 0.5 m . Would this be closer to zero or to $1.0 .5=1 / 2$.
Ask pupils to find other decimal fractions less than 1. Ask them to write the decimal fraction next to the number line in chalk. Do the same with numbers greater than 1. Group B
Using fraction sticks. Pupils investigate bag contents and asked to find 2 halves, find 10 1/10s. Using sticks as reference draw 1 whole with playground chalk. How many $1 / 10$ s make 1 whole, how many $1 / 10$ s make $1 / 2$. Write fraction and decimal fraction on ground.
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Swap over groups.
Conclusion: What is the difference between a fraction and a decimal fraction? Can you suggest when fractions more helpful than decimal fractions and vice versa? Share one thing you learned today. Is there something you know how to do now you didn't before.

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## 15 minutes

3 Groups
Active learning, peer support, group working

5 minutes Active learning, collaboration


