



# Pizza the Action

## Understanding fractions through a pizza cutter approach

**Subject(s):** Maths

**Approx time:** 30-40 minutes

**Key words / Topics:**

- > Whole
- > Half
- > Quarter
- > Fraction
- > Equal
- > Share

### Suggested Learning Outcomes

- > To understand that a half and quarter are 'fractions of' a whole object.
- > To recognise, find and name a half as one of two equal parts of a unit.
- > To recognise, find and name a quarter as one of four equal parts of a unit.
- > To understand that fractions, halves and quarters, can be combined as part of a whole unit.

### Introduction

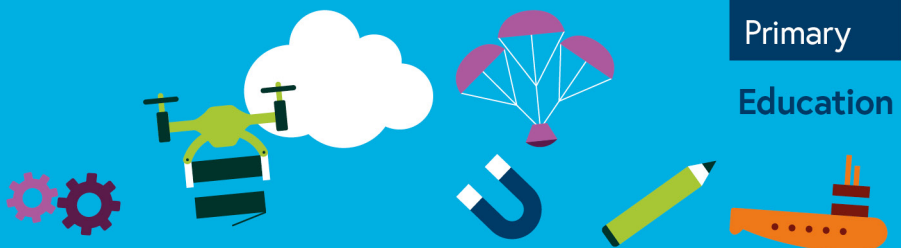
This is one of a set of resources developed to support the teaching of the primary national curriculum. They are designed to support the delivery of key topics within maths and science. This resource focuses on using a pizza cutter approach to teaching fractions.

Fractions are important as they help us to be able to divide objects into equal and measurable parts. They tell you what portion of a whole you need, have, or want.

### Purpose of this activity

In this activity learners will gain an understanding of fractions by cutting a pizza. Learners will relate to this approach as pizza is a common party food and shows how a pizza can be shared in equal parts.

This activity could be used as a starter or main activity to introduce fractions and can be developed further with other objects and a combination of halves and quarters.





## Activity

### Introduction (5 minutes)

Teacher to explain that learners are going to look at fractions and how to cut a pizza into equal parts to share with their friends.

### Pizza fractions (10-20 minutes)

- > Teacher to follow the slides in the teacher presentation and discuss that each piece of pizza that is cut is a **fraction** of the **whole** pizza.
- > The teacher should discuss how the learners would share the pizza equally with themselves and a friend. Use the next slide to show 2 equal halves.
- > The teacher should then discuss how to share the pizza equally with themselves and 3 friends. Use the next slide to show 4 equal quarters.
- > The teacher can discuss the combination of fractions i.e. 2 quarters is the same as a half.

### Colour the Pizza Fractions activity. (10 minutes)

Learners to complete the colour the pizza fraction handout to check the learners understanding of whole, half and quarters. Coloured pencils or crayons may be used.

The teacher presentation can be left on the whiteboard as a supporting guide as they do this.

### Discussing the activity (5 minutes)

Teacher to discuss with learners how they would name and recognise half a pizza and then a quarter.

## Differentiation

### Basic

Use a card example to model how a pizza would be cut into half and then quarters.

Label each part to enhance understanding

## Teacher notes

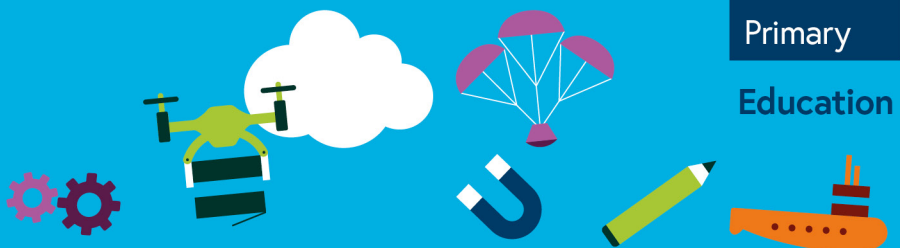
This activity could be completed by individual learners or table groupings. It introduces the learners to the concept of fractions i.e. a half and a quarter. The presentation slides highlight the national curriculum requirements with the learners being able to understand what a half and quarter are by dividing a recognised shape. .

As an alternative to the handouts, actual pizzas could be used (or pancakes or similar). Appropriate food hygiene and handling precautions would need to be applied.

### Extension

Identify how to divide the pizza into different numbers – e.g. thirds and eighths.

Investigate alternative shapes that could cut the pizza into the same equal parts, i.e. curved or irregular shapes.





## Resources

- > Coloured pencils or crayons for completion of the handout activity.

## Required files



Teacher presentation – Pizza the action



Handout – Colour the Pizza Fractions

## Additional websites

- > **Bitesize – What are Fractions:** A fun cartoon that explains a half and quarters.  
<https://www.bbc.co.uk/bitesize/topics/z3rbg82/articles/zq2yfrd>
- > **NRich Fractions KS1:** Alternative ways of dividing items into fractions <https://nrich.maths.org/8939>
- > **Snappymaths:** a selection of fractions worksheets and resources  
<http://www.snappymaths.com/counting/fractions/fractions.htm>
- > Interactive resources: three flash-based resources that could be used on an interactive white board  
<https://www.topmarks.co.uk/Interactive.aspx?cat=14>

