

Adaptability

Demonstrated by the ability to change, alter or cope with new environments or circumstances.

Knowledge Harvest:

This will be a cross curricular session with Humanities where all classes will be together to consider "If the population of the world was shrunk to a village of 100 people". Students will investigate the subsequent fractions and percentages of how this village is made up, such as the fraction of people who can read, and explore the usefulness and importance of using fractions and percentages.



Independent ORGANISER

I am willing to take risks and seek out new challenges and take personal responsibility for my actions. I can independently set goals and persevere to achieve them. I can independently organise my time and resources to prioritise actions I need to take. I can reflect on my learning and modify my goals when priorities change, showing flexibility.

1 Key Question: How can I solve problems using fractions?

Skill Development:

Students will be able to apply the four operations, including formal written methods, to simple fractions (proper and improper), and mixed numbers and be able to express one quantity as a fraction of another.

Project Outline:

Students will ensure that they can add, subtract, multiply and divide fractions and ensure that they have a solid understanding of the different types of fraction used.

Project exit point

Students will work in small groups 3 / 4 students to create a learning tool explaining and demonstrating how to carry out calculations using two of the four operations. This could be in the form of a video, animation or interactive poster.

Suggested duration - This series of lessons cover a maximum of 4 lessons

2 Key Question: What does equivalency of fractions, decimals and percentages mean?

Skill Development:

Students will be able to use decimals effectively and convert them into both fractions and percentages, and vice versa. Students will also be able to assess which form the number should be in and subsequent mathematical method they should use.

Project Outline:

Students will use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate. Students will also order positive and negative integers, decimals and fractions and will interpret fractions and percentages as operators.

Project exit point

Students will be assessed using a formalised summative assessment.

Suggested duration - This series of lessons cover a maximum of 4 lessons

3 Key Question: How can understanding percentages save me money?

Skill Development:

Students will be able to compare percentages and solve problems involving percentage change, including percentage increase and decrease.

Project Outline:

Students will compare quantities using percentages and use calculators to find a percentage of an amount and percentage increase and decrease using multiplicative methods. Students will also calculate the percentage change in a given situation, including percentage increase / decrease

Project exit point

Students will undertake a real-life scenario project taking on the role of a retailer. Students will complete this independently over the course of the lessons to ensure that they are developing the skills of an independent organiser.

Suggested duration - This series of lessons cover a maximum of 4 lessons

4 Key Question: What does movement look like and mean in Maths?

Skill Development:

Students will be able to identify, apply, describe and construct congruent shapes by considering reflection, rotation and translation.

Students will set challenges and questions for each other to show their resilience to challenges.

Project Outline:

Students will ensure that they have a firm and comprehensive understanding of coordinates and use these to solve geometrical problems, including reflection, rotation, translation and a combination of all 3.

Project exit point

Classes design assessment questions for each of the other classes.

Suggested duration - This project covers a maximum of 8 lessons



Resilient learner

I am always focused on what I need to do and for what reason. I can deal with problems very well when they happen and come up with solutions. I always try my hardest and never give up even when I am under pressure. I have a can-do attitude and have self-belief in whatever I do.

Exit Point:

The exit point will combine of two parts. 1. Formalised individual test using Independent organiser skills using graduated topic questions on Fractions, Decimals, Percentages and Mathematical movement.

2. Group problem solving activity assessing resilient learner skills – Students in mixed ability groups are given a scenario based question and need to use learnt knowledge and skills to solve it.