# Year 7- Mathematics

LEARNING JOURNEY

Links to careers/SMSC/Personal Development:
- In Algebra lessons we will share the appreciation with the pupils that mathematic language and symbols have developed from many different cultures around the world: e.g. Egyptian, Indian, Islamic, Greek and Russian roots
- Celebrate Pi day and show appreciation to Maths and Science
- UKMCT challenge for year 7 to develop problem solving skills
- World numeracy day to promote the love and appreciation of numeracy skills to use in daily life
- Maths related career's when a specific topic is taught. i.e. The use of prime numbers in Cryptography

FHS

YEAR 8

ALGEBRA IN REAL LIFE
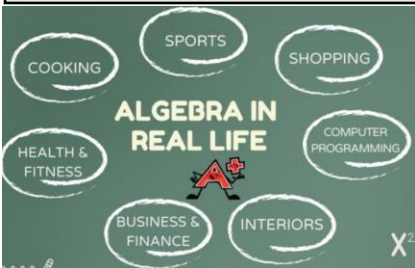
Probability

Transformations

Constructions

Project : Designing a Theme Park

Multiplicative Relationships

Order of operations

Arithmetic with Fractions

Equivalent Fractions

HAPPY PI DAY 3,14 MARCH 14

Understanding multiplicative relationships

Calculating with Fractions

"Without mathematics, there's nothing you can do. Everything around you is mathematics. Everything around you is numbers."

Area of a triangle
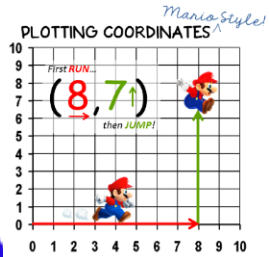
Area of a trapezium

Circumference of a circle

Area of a circle

Weekly Home learning on Sparx

Calculating area of different 2D shapes

Understanding and using π
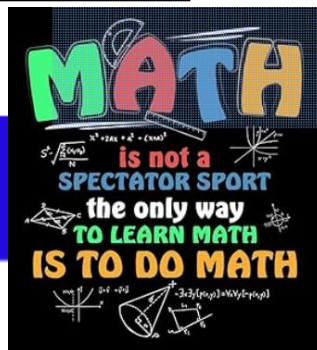
PLOTTING COORDINATES (8, 7)

Coordinates and plane

Expanding and factorising Expressions

Expressions in Algebra

Assessments
- **Fortnightly progress check**
- **End of term assessments**

MATH is not a SPECTATOR SPORT the only way TO LEARN MATH IS TO DO MATH

UKMT United Kingdom Mathematics Trust

Coordinates in Cartesian plane

Expanding and factorising

It is not knowledge, but the act of learning, not the possession of but the act of getting there, which grants the greatest enjoyment. Carl Friedrich Gauss

Enrichment
TTROCK Stars club
Chess Club

Writing algebraic statements

Understanding the number system

Four operations with Negative numbers

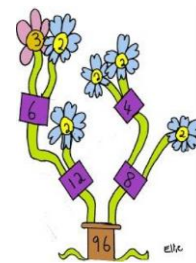Index (power) notation

Factors and Prime Factors

HCF and LCM
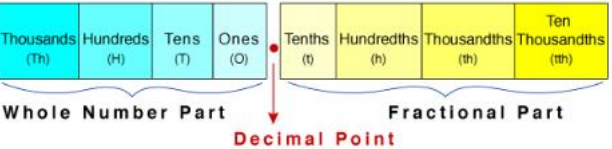
Four Operations with decimals

Square and cube number

Multiples of a number

Place Value

YEAR 7

Transition day

Thousands (Th)	Hundreds (H)	Tens (T)	Ones (O)	Tenths (t)	Hundredths (h)	Thousandths (th)	Ten Thousandths (tth)

Whole Number Part ⟵ Decimal Point ⟶ Fractional Part

Transition

Year 7 learning summary: Rationale

An understanding of and ability to use standard arithmetic procedures for all four operations with integers and decimals, as well as procedures for some calculations with fractions, should be well established at Key Stage 2. The year 7 should have the following skills to enable them to access later contests in year 8 and 9.

place-value system for integers and decimals are introduced in primary schools which is based on powers of tenths. Structure of number system and the ways of representing it using factor trees and Venn Diagrams higher powers for integers and their roots (square, cube and others) . How negative numbers are calculated and how the power notation is linked to our number system. Gain more fluency in calculations using integers, decimals, negative numbers, and fractions. Relationships between numbers of structures to calculate efficiently. How numerical statements are written using algebra. Algebraic notations and techniques to generalise number manipulations. Learn how algebra is linking numbers system and operations on numbers. Coordinate system using x and y as input and output function. Perimeter and area of circles and other common 2D shapes. Ratio and proportion. Multiplicative relationships connecting fractions, percentages, and ratios. Transformation of shapes in a Cartesian plane

Some of these topics will be