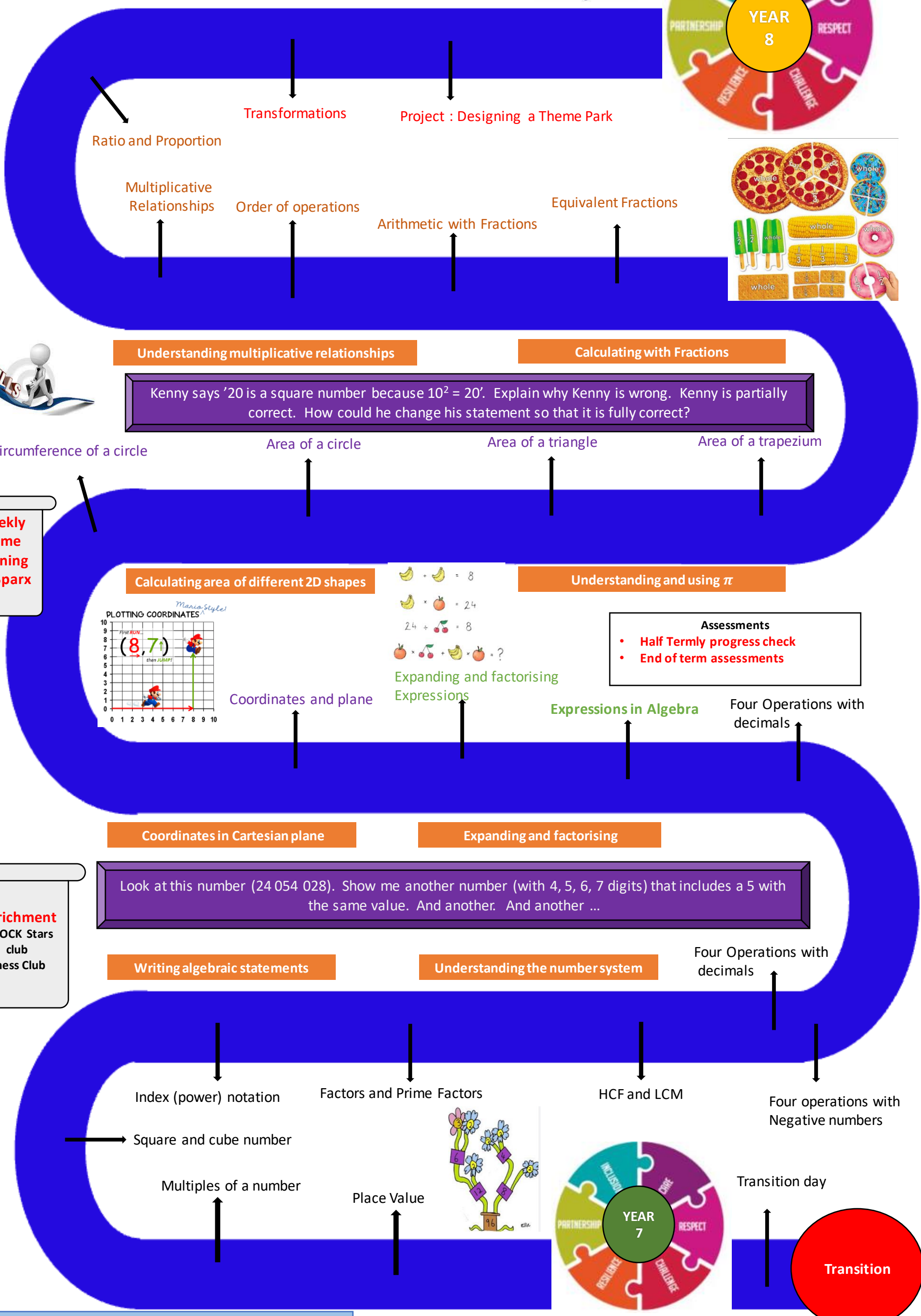


# Year 7- Mathematics

- **Links to careers/SMSC/Personal Development:**
- In Algebra lessons we will share the appreciation with the pupils that mathematics, its 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

## LEARNING JOURNEY

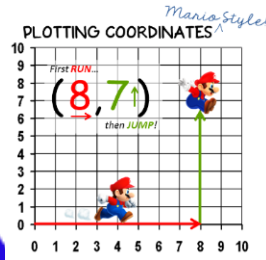


Kenny says '20 is a square number because  $10^2 = 20$ '. Explain why Kenny is wrong. Kenny is partially correct. How could he change his statement so that it is fully correct?

**Weekly Home learning on Sparx**

**Enrichment**  
TTROCK Stars club  
Chess Club

- Assessments**
- Half Termly progress check
  - End of term assessments



$$\begin{aligned} \text{Banana} + \text{Banana} &= 8 \\ \text{Banana} \times \text{Apple} &= 24 \\ 24 \div \text{Cherry} &= 8 \\ \text{Apple} \times \text{Cherry} + \text{Banana} \times \text{Apple} &= ? \end{aligned}$$

### Year 7 learning summary: Rationale

In year 7 we will explore the following:  
 place-value system for integers and decimals are introduced in primary schools which is based on powers of ten  
 the 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

