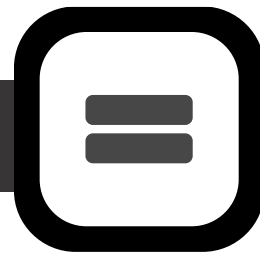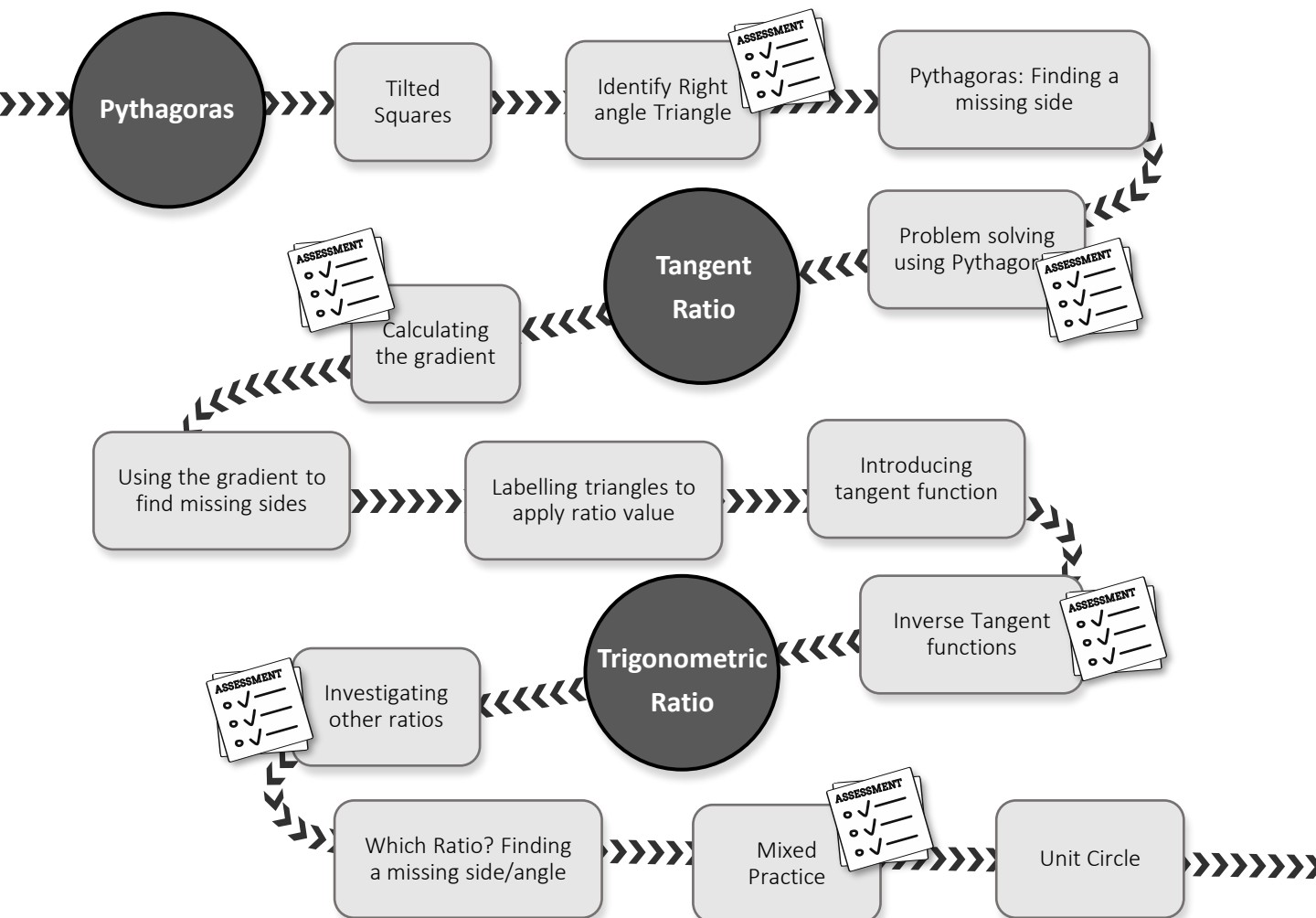# LEARNING JOURNEY | MATHS

Right-Angled Triangles

Year 9 Summer Half Term 2

The mathematical concepts we are looking at this half term have practical applications in real life. Understanding Pythagoras' theorem allows us to calculate distances, such as determining the length of a diagonal or the height of a building. Trigonometry, on the other hand, helps us solve problems related to angles and distances, making it useful in fields like engineering, architecture, and navigation.

Pythagoras and trigonometry form the foundation for advanced mathematical concepts. Proficiency in these will open doors to various rewarding careers, such as engineering, architecture, surveying, astronomy, and computer graphics.

Pythagoras >>>>> Tilted Squares >>>>> Identify Right angle Triangle (ASSESSMENT ✓) >>>>> Pythagoras: Finding a missing side

Problem solving using Pythagoras (ASSESSMENT ✓) <<<<< **Tangent Ratio** <<<<< Calculating the gradient (ASSESSMENT ✓)

Using the gradient to find missing sides >>>>> Labelling triangles to apply ratio value >>>>> Introducing tangent function

Inverse Tangent functions (ASSESSMENT ✓) <<<<< **Trigonometric Ratio** <<<<< Investigating other ratios (ASSESSMENT ✓)

Which Ratio? Finding a missing side/angle >>>>> Mixed Practice (ASSESSMENT ✓) >>>>> Unit Circle >>>>>

TUDOR HABITS AND VALUES: This half term you will develop your perseverance, patience, and problem-solving skills. You will have to pay attention to detail and think strategically as you link previous concepts and apply them to multi-step problems.

VOCABULARY
- ❑ Hypotenuse
- ❑ Adjacent
- ❑ Opposite
- ❑ Tangent
- ❑ Pythagoras