## **Topic: Right Angled Trigonometry**

Topic/Skill	<b>Definition/Tips</b>	Example
1.	The study of triangles.	
Trigonometry		
2. Hypotenuse	The longest side of a right-angled triangle.	hypotenuse
	Is always <b>opposite</b> the <b>right angle</b> .	
3. Adjacent	Next to	P etisode Hypotenuse
4	Lice COLICATITOA	Adjacent
4. Trigonometric	Use <b>SOHCAHTOA</b> .	
Formulae	$\sin \theta = \frac{O}{H}$	35°
	$\cos \theta = \frac{A}{H}$	Use 'Opposite' and 'Adjacent', so use 'tan'
	$\tan \theta = \frac{O}{A}$	$\tan 35 = \frac{x}{11}$ $x = 11 \tan 35 = 7.70cm$
	O A O T A	7cm
	When finding a missing angle, use the 'inverse' trigonometric function by	5cm
	pressing the 'shift' button on the calculator.	Use 'Adjacent' and 'Hypotenuse', so use 'cos'
		$\cos x = \frac{5}{7}$
		$x = \cos^{-1}\left(\frac{5}{7}\right) = 44.4^{\circ}$
5. 3D Trigonometry	Find missing lengths by <b>identifying right</b> angled triangles.	D
	You will often have to find a missing length you are not asked for before finding the missing length you are asked for.	A B