


Subject	Year	Month		
Mathematics	7	February		
Topic:				
3D SHAPES				3 LESSONS
Content (Intent)				
Prior Learning KEY STAGE 2 <ul style="list-style-type: none"> Know the names of common 3D shapes Know the meaning of face, edge, vertex Understand the principle of a net 		Future Learning Year 8 <ul style="list-style-type: none"> Plans & Elevations (November) Volume of a cylinder (April) Year 9 <ul style="list-style-type: none"> Surface Area of a right-prism & a cylinder (January) 		
Objectives <ul style="list-style-type: none"> Know the connection between faces, edges and vertices in 3D shapes Recognise and use nets of 3D shapes 		For teaching purposes POSSIBLE QUESTIONS <ul style="list-style-type: none"> Always / Sometimes / Never: The number of vertices in a 3D shape is greater than the number of edges POSSIBLE MISCONCEPTIONS <ul style="list-style-type: none"> A cylinder is not a prism Only counting the faces, edges, vertices that you can see 		
Pedagogical notes (implementation)		How will understanding be assessed & recorded (Impact)		
A cube is a special case of a cuboid A prism must have a polygonal cross-section → a cylinder is not a prism. Similarly → a cone is not a pyramid. <i>Use of cut out nets</i> <i>Use of building cubes</i>		End of Year Assessment in June/July How can parents help at home? MathsWatch clips (Qualification ks3) G12a, G12b, G12c		
Further reading/discussion				
Reading / Enrichment KM: Euler's formula KM: Visualising 3D shapes KM: Complete the net	Literacy Face, Edge, Vertex (Vertices) Cube, Cuboid, Prism, Cylinder, Pyramid, Cone, Sphere	Numeracy Links	Careers Links Jewellery Maker/Designer Car designer Astronomer – patterns in the stars Landscape Gardener Plumber	