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| **Core Knowledge Map** | | | |
| Subject: **Mathematics** | Year: 11 | | Term: Autumn 1 |
| What are we learning? | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Unit 11: Constructions, loci and bearings** | **Sparx IL Codes** | Sad face outline with solid fill | Nervous face outline with solid fill | Smiling face outline with solid fill | | To draw front and side elevations and plans of simple solids. | U743 |  |  |  | | Given the front and side elevation and the plan of a solid, draw a sketch of the 3D solid. | U742 |  |  |  | | Use and interpret maps and scale drawings | U257 |  |  |  | | Draw and measure bearings | U525 |  |  |  | | Calculate bearings and solve bearings problems | U107 |  |  |  | | Construct perpendicular lines and bisector, angle bisectors and 90° and 45° angles | U187,U787,  U245,U979 |  |  |  | | Construct standard loci | U820 |  |  |  | | Find and describe regions satisfying a combination of loci. | - |  |  |  | | | | |
| How will I be assessed | | | |
| Retrieval Tasks, Exit tickets, end of half-term test. | | | |
| Big questions: | | | |
| Can you….?   * Construct an equilateral triangle * Construct a perpendicular bisector * Construct an angle bisector * Describe a locus of points that are a fixed distance from a point. * Describe a locus of points that are a fixed distance from a line segment. * Describe a locus of points that are equidistant from two points. | | | |
| How does this build on previous learning? | | How will this link to my future learning? | |
| * Construct triangles with protractor and compass (Y7) | | * Circle geometry – constructing graphs of a circle function. * GCSE synoptic and multi-step problem solving questions. | |
| Core knowledge: | | Key vocabulary: | |
| * A **bisector** is a line that divides something into two equal parts. * A **locus** is a path created by a set of points that satisfy a rule/property. Plural – **loci** * A **bearing** is an angle measured in degrees from a North line to aid in navigation. * **Bearings** are always given as 3 digits eg a bearing of 30o will be written as 030o. * A **plan view** is a scale drawing of a 3D shape looked at from above the shape. | | Perpendicular  Bisector  Locus  Loci  Bearing  Plan view  Elevation  Scale | |
| Need more help? Use the Sparx Independent Learning Codes above | | | |