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| **Core Knowledge Map** |
| Subject: **Mathematics** | Year: 11 | Term: Autumn 1 |
| What are we learning? |
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| **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. | - |  |  |  |

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| 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.
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| 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.
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| 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.
 | PerpendicularBisectorLocusLociBearingPlan viewElevationScale |
| Need more help? Use the Sparx Independent Learning Codes above |