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| **Topic/Skill** | **Definition/Tips** | **Example**  **Topic: Circumference and Area** |
| 1. Circle | A circle is the locus of all points equidistant from a central point. | Image result for math definition circle |
| 2. Parts of a Circle | **Radius** – the **distance** from the **centre** of a circle to the **edge**  **Diameter** – the total **distance** across the **width** of a circle **through the centre**.  **Circumference** – the **total distance** around the **outside** of a circle  **Chord** – a **straight line** whose **end points lie on a circle**  **Tangent** – a **straight line** which **touches** a circle at exactly **one point**  **Arc** – a **part of the circumference** of a circle  **Sector** – the **region** of a circle enclosed by **two radii** and their intercepted **arc**  **Segment** – the **region** bounded by a **chord** and the **arc** created by the chord | Image result for parts of a circle |
| 3. Area of a Circle | which means ‘pi x radius squared’. | If the radius was 5cm, then: |
| 4. Circumference of a Circle | which means ‘pi x diameter’ | If the radius was 5cm, then: |
| 5. (‘pi’) | Pi is the circumference of a circle divided by the diameter. |  |
| 6. Arc Length of a Sector | The arc length is part of the circumference.  Take the **angle** given **as a fraction over 360°** and **multiply** by the **circumference**. | Arc Length = |
| 7. Area of a Sector | The area of a sector is part of the total area.  Take the **angle** given **as a fraction over 360°** and **multiply** by the **area**. | Area = |
| 8. Surface Area of a Cylinder | **Curved Surface Area =**  or  **Total SA =** or |  |
| 9. Surface Area of a Cone | **Curved Surface Area =**  where  **Total SA =**  You may need to use Pythagoras’ Theorem to find the slant height |  |
| 10. Surface Area of a Sphere | Look out for hemispheres – halve the SA of a sphere and add on a circle | Find the surface area of a sphere with radius 3cm. |

**Knowledge Organiser**