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| **Topic/Skill** | **Definition/Tips** | **Example**  **Topic: Volume** |
| 1. Volume | Volume is a measure of the amount of space inside a solid shape.  Units: etc. | Image result for math definition volume |
| 2. Volume of a Cube/Cuboid | You can also use the Volume of a Prism formula for a cube/cuboid. | Image result for volume cuboid |
| 3. Prism | A prism is a 3D shape whose **cross section is the same** throughout. | Image result for math definition prism |
| 4. Cross Section | The **cross section** is the **shape** that **continues** all the way **through the prism**. |  |
| 5. Volume of a Prism | **The cross section can be as simple as a square face, but here we have a piece of curved piping . Sometimes in the exam they will give you the area of the**  **cross-section .**  **Eg., say here the cross section has an area of 50, the length is 20cm what is the volume of this prism**  **So all you would need to do is**  **V = 50 = 1000** | Resourceaholic: Common Errors Made by Maths Teachers |
| 6. Volume of a Cylinder | **V = Area of circle length**  **Since cylinders often hold liquid they are upright so we use**  **V = Area of circle height** |  |
| 7. Volume of a Cone | **A cone is circle based pyramid so**  **V=**  Hence |  |
| 8. Volume of a Pyramid | Volume of any pyramid =  So here its  V = |  |
| 9. Volume of a Sphere | Look out for hemispheres – just halve the volume of a sphere. | Find the volume of a sphere with diameter 10cm.Since d=10, r=5 |
| 10. Frustums | A frustum is a solid (usually a cone or pyramid) with the **top removed**.  Find the volume of the whole shape, then take away the volume of the small cone/pyramid removed at the top. |  |

**Knowledge Organiser**