| STM Knowledge Organiser Year: 7Subject: MathsCore Knowledge | | <u>1aths</u> Topic: Symmetry |
|---|--|--|
| Topic/Skill | Definition/Tips | Example |
| Line of symmetry | If you can fold a 2D shape along a line so that one half fits exactly over the other, the fold line is a line of symmetry | |
| Vertical | Direction of a line | |
| Horizontal | Direction of a line | |
| Mirror line | Also called a line of symmetry because the shapes on each side reflect each other | |
| Reflective symmetry | The shape has reflective symmetry if each shape reflects each other. | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ |
| Rotational symmetry | If you can rotate a shape so that it looks exactly the same in a new position | |
| Order of rotational symmetry | Is the number of different positions in which the shape looks the same as you rotate it through one complete turn (360 ⁰) | no rotational symmetry (order 0) order 2 order 3 order 4 order 5 |

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| Image | The shape created once reflected | | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ |
|--------------|---|--------------------------|--|
| Object | The original shape | Object | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| Reflect | To create the same shape where each point is the same distance away from the mirror line as it currently is | | |
| Reflection | The shape once reflected | | Look at the above picture. One is the image, one is the original |
| Tessellation | A pattern made by fitting togethe the shame shape without leaving | r copies of any gaps. | |

Links to Translations, Reflections, Enlargements, Rotations, using coordinates, vectors and graphs