**Rules:**

- every lesson MUST have a title and a date and every title and date MUST be underlined with a ruler
- do not use red or green pen
- writing in pen, diagrams in pencil
- DO NOT DOODLE

I will collect in your hefts regularly and give you a note for them at the end of the year.

**Testing:**

Your final grade will be worked out using a 2:1 ratio of Schulaufgaben:other tests

I will inform you as to how many of each type of test you will do throughout the year.

**1st Topic: Axis and Point Symmetry**

**Introduction to Symmetry**

Learning Objectives:

- all pupils can find the symmetry of quadrilaterals
- all pupils can find the symmetry of regular polygons
- most pupils can find the symmetry of irregular polygons
- some pupils can find planes of symmetry

**Introduction to Symmetry**

What do you know about symmetry?
Introduction to Symmetry

Key words for today’s lesson

- symmetry
- mirror lines
- quadrilaterals
- polygons
- regular
- plane
- irregular

Main 1: symmetry of quadrilaterals

Which quadrilaterals do you know?
Draw and label them.

Extension: Draw on their lines of symmetry

Main 2: symmetry of regular polygons

Which regular polygons do you know?
Investigate (by sketching) how many lines of symmetry they each have.

Extension: Can you predict how many lines of symmetry a regular heptagon (7 sided shape) has?

Main 1: symmetry of quadrilaterals

Learning Objectives:
- all pupils can find the symmetry of quadrilaterals
- all pupils can find the symmetry of regular polygons
- most pupils can find the symmetry of irregular polygons
- some pupils can find planes of symmetry

Main 2: symmetry of regular polygons

Investigate how many lines of symmetry they each have.

Extension: Can you predict how many lines of symmetry a regular hectagon (100 sided shape) has?
Introduction to Symmetry

Learning Objectives:
- all pupils can find the symmetry of quadrilaterals
- all pupils can find the symmetry of regular polygons
- most pupils can find the symmetry of irregular polygons
- some pupils can find planes of symmetry

Main 3: symmetry of irregular polygons
1. Draw an irregular polygon with
   a) 2 lines of symmetry
   b) 3 lines of symmetry
2. Copy and complete these irregular shapes to make them have
   a) 2 lines of symmetry
   b) 3 lines of symmetry

Extension Task: planes of symmetry

What are planes of symmetry?
How many planes of symmetry has a cube got?

Extension: How many planes of symmetry has a sphere?

Homework

Which sectors will fit together to make circles?