

Design our 6th Class welcome poster

CURRICULUM ALIGNMENT

SHA.TRN.4a

perform and devise a range of steps involving transformations.

NUM.FRC.4a

explore (model, compare and convert) the relationships between fractions, decimals and percentages.

SHA.SHP.4a

construct 3-D and 2-D models or structures given defined measurements and/or specific conditions.

DAT.DAT.4a

pose questions, collect, compare, summarise and represent data selectively to answer those questions.

INTERACTIVES

Shape Measurer · display

Bar Chart Builder · explore

WHAT THIS LESSON TEACHES

A shape has rotational symmetry when it looks the same again before a full turn; the order is how many times it matches. On a poster grid we also find what share of the 100 squares a title box covers and choose border shapes that tessellate.

→ A square has order 4 - it matches after each quarter turn.

→ A title box covering 30 of the 100 squares covers 30% of the page.

MODEL THIS ON THE BOARD

TITLE BOX COVERAGE ON THE GRID

- 1 The welcome poster is a 10 by 10 grid, so the whole page is 100 squares.
- 2 The title box is 6 squares by 5 squares, so it covers $6 \times 5 = 30$ squares.
- 3 30 out of 100 squares is **30%** of the page.

ANSWER KEY

a) Title block: (e.g. 40×8), ,

b) Symmetry pattern: , ,

c) Bar chart: , ,

d) Photo / illustration: , ,

e) Whitespace: , ,

f) TOTAL: —, , 100%

Q1: 30

Q2: 20%

Q3: 4

Q4: 4

a) Always : A square matches itself after each quarter turn, four times in a full turn.

b) Always : 30 out of 100 is exactly 30 percent.

c) Never : Regular pentagons leave gaps; they do not tessellate.

d) Sometimes : True for a square, which is a special rectangle; false for a long rectangle, which has order 2.