## Paper 13

- d rotating 90° anticlockwise
- rotating 90° clockwise 2
- d reflection in the 3 horizontal mirror line
- 4 **b** rotating 180°
- 5 **c** reflection in the vertical mirror line
- 6 a rotating 90° clockwise
- 7 e reflective corners
- 8 a reflective corners
- 9 e reflective corners
- 10 a Each row contains one of each shape and the shapes rotate 90° anticlockwise on each row.
- c first letter number of 11 black circles second letter - total number of circles
- a first letter direction of 12 internal lines second letter - direction of single line
- 13 e first letter – number of triangles above the line second letter - total number of triangles
- 14 c first letter – colour of circles second letter - total number of circles
- **d** first letter fill pattern 15 second letter - direction of arrow/point
- 16 d
- 17 b



18 е



19 d

20 C



## Paper 13 - continued

- **21** l b
- 22 а
- 23 е
- 24 d
- 25 d

If in doubt about the nets of cubes, copy them onto a piece of paper and fold them.

- 26 | c colours move out from the centre
- 27 square number of circles C
- 28 rotating 90° clockwise
- 29 a star moves along the quadrilateral, quadrilateral gets paler, arrow reflects in the horizontal line: there will only be one point of the star on the quadrilateral
- 30 rotating 90° clockwise b













35





## Paper 13 – continued

- 36 | b Each is a rotation of the same picture.
- **37** Each picture contains a black square.
- **c** The black and grey 38 trapeziums have their wide edge facing out, if the shape were rotated so the grey trapezium were at the top, the white trapeziums would have both wide edges facing right.
- 39 Each picture contains a small square by a right angle.
- Each is a rotation of the 40 C same picture.
- 41 The others are all rotations of the same picture.
- The others are all 42 е quadrilaterals.
- 43 The others all have the circle in a right angle.
- The others all contain a 44 white rectangle and a grey rhombus.
- 45 The others all contain a circle in a left-hand corner.

46 а



47 b



48 C



49 a



**50** 

