Radiant Rangoli Patterns with Zara

1. Symmetrical means that both sides of a shape or pattern are exactly the same. Symmetry is important in Rangoli because it creates balance and makes the design look neat and beautiful. (2 marks)

Working: Definition of symmetry and the concept of balance.

1 mark for defining symmetry; 1 mark for explaining the importance of balance/aesthetics.

2. The student should draw a mirror image of the provided half-hexagon on the right side of the line of symmetry. (2 marks)

Working: Reflecting the vertices and edges across the central axis.

1 mark for correct shape; 1 mark for accurate reflection.

3. 4 candles. Calculation: 12 ÷ 3 = 4. (2 marks)

Working: 12 divided by 3 equals 4.

1 mark for the correct answer; 1 mark for the correct calculation.

4. Accept any three: circles, triangles, squares, rectangles, or hexagons. (3 marks)

Working: Identifying common geometric shapes used in patterns.

1 mark for each correct shape listed (up to 3).

5. Artists use vibrant colours because Diwali is a festival of light. Bright colours help the Rangoli stand out and reflect the joy and brightness of the celebration. (2 marks)

Look for: Linking the use of bright colours to the theme of light and celebration.

Good: They use bright colours because it looks nice for the festival.

Better: They use bright colours because Diwali is about light and the colours make it look happy.

Best: Artists choose vibrant colours because Diwali celebrates light; the bright colours help the design shine and look welcoming for guests.

What moves an answer up: Moving from simple observation to linking the artistic choice directly to the cultural purpose of the festival.

What a secure answer looks like

A secure answer demonstrates an understanding that symmetry is about balance and that Rangoli patterns are intentional, geometric designs. Students should be able to apply division to solve the candle problem.

If your child is stuck

Ask the child to fold a piece of paper in half and cut a shape out of the folded edge; when they open it, they will see symmetry. For the maths, suggest they draw 12 dots and circle them into 3 groups.

Common mistakes to watch for

Children often confuse symmetry with 'the same size' rather than 'mirror image'. In the maths problem, some may try to add or multiply instead of dividing the total number of candles.