

Zara's Radiant Rangoli Design Challenge

Learning objective: To explore the cultural significance of Rangoli patterns and apply understanding of geometric symmetry to create original artwork.

Zara the Zebra loves spotting patterns in nature and art! Use a ruler and pencil to create your own Rangoli design inside the grid provided. Rangoli patterns are traditionally symmetrical, meaning both sides should look identical. After sketching, use vibrant colors to fill in your shapes, ensuring your design is balanced and harmonious.

Word bank: Symmetry · Geometric · Pattern · Diwali · Reflection · Tessellation · Vibrant · Balance

1. Explain why symmetry is such an important feature in traditional Rangoli art. How does it change the way the viewer feels when looking at the design? (2 marks)

2. Compare and contrast a Rangoli pattern with a piece of abstract art. What are the key differences in how they are constructed? (2 marks)

3. Justify your choice of colors for your design. Why might someone choose bright colors like yellow, red, and orange for a celebration like Diwali? (2 marks)

4. What might happen to the visual effect of your Rangoli if you removed the line of symmetry from the center? Describe the impact on the viewer. (2 marks)

5. If you were to create a Rangoli using natural materials like flower petals or colored rice, how would you ensure the design stays perfectly symmetrical during the process? (2 marks)

6. Evaluate the difficulty of creating a rotational symmetry pattern versus a reflective symmetry pattern. Which is more challenging and why? (2 marks)

Draw: Using the grid below, draw a symmetrical Rangoli pattern. Start by drawing a central shape, then mirror your patterns outwards. Focus on using triangles, circles, and squares to build a complex, repeating geometric design.



Extension challenge: Design a 'Budget Rangoli' for a community event. If colored sand costs £2.50 per bag and you need 4 bags to cover your design, calculate the total cost. If you have a budget of £12.00, what is the maximum number of bags you could purchase, and how much change would you receive?