Activity Ideas

Shape and Colour Stones

YD1242

Make playing with shapes even more sensory with these colourful shape stones, robust enough to be used in a sand tray, water tray or mud kitchen, or with play dough. As children explore the different shapes and make patterns or pictures with them, they will be developing important spatial reasoning skills.

Shaping the conversation

The shapes are ideal for offering in a variety of sensory settings for children to explore freely, such as in sand, kinetic sand, water, crushed ice, mud, play dough, fabric, rice or lentils. Children will love uncovering the shapes for themselves and may start to compare their colours or properties, or sort them into groups. There will be opportunities to develop the learning using mathematical language:

- As children show interest in the shapes themselves, encourage them to count the sides and the corners. Do they know the names of any of these shapes? Which are the same and which are different?
- Children might comment on the engraved side of the stones. Is the engraving the same shape as the stone? Is it smaller or bigger? You might like to point out that the engraved triangle has the same number of sides as the stone, but they are shorter than the stone's sides.
- Encourage children to sort the shapes into groups. This could be by shape and colour, by the number of corners or by whether the shapes have straight or curved sides.
- You might like to promote shape matching by offering small trays or containers with a single shape drawn on each one. Drawing the shapes with a black marker will encourage children to think about the shape itself rather than matching by colour. Alternatively, children could match the stones to a different shape resource, such as Yellow Door's Bug Sorting Stones.

- As children explore the shapes, take opportunities to talk about the position of the shapes – for example, is the blue rectangle next to, in front of, on top of or between the red circles?
- Mention the orientation of the shapes – for instance, are the two purple diamonds the same way round? Children may also choose to position the shapes upright in damp sand or dough, or on a hard surface.
- A simple barrier game offers plenty of opportunities for positional language. With a barrier between them, one player lays out a small selection of shapes in front of them, then describes their position for the other to copy, using either shape names or colours to describe them. Do the designs match?

Setting a pattern

Children may start to build colourful pictures and patterns independently using the shapes:

- They might choose to make abstract patterns, perhaps trying to reduce the gaps between the shapes and exploring tessellation. You may wish to encourage this by offering just the squares and rectangles or triangles and diamonds, and challenging children to fit the stones together without any gaps.
- Offering the stones with rolled out play dough will allow children to create their own mosaic design as they push the stones into the surface of the dough.

- Children may also enjoy creating simple pictures with the stones, such as a flower, rocket or boat. They might also choose to create simple 3D objects by stacking the stones, such as a house or a doorway. You could take the opportunity to talk about which shapes stack well when they are upright – it's much easier to place another stone on top of a straight side than a curved side. Carefully balancing an upright stone is also great for fine motor skills.
- As children put together combinations of stones, you could talk about how two shapes next to each other can form a different shape (composition of shapes). For example, can the children put together two squares to form a rectangle or two triangles to form a diamond?
- Using the stones to make imprints in play dough allows children to create patterns where the shapes overlap.

- The stones are also great for exploring repeating patterns, an important part of early mathematical understanding. Begin a simple AB or ABC pattern using the shapes and encourage children to continue it. You could then challenge the children to copy a repeating pattern using different shapes – for example a circle-square AB pattern could be copied using a rectangle-triangle AB pattern. The next step is for children to build their own patterns. You might ask them to make a diamond-circle pattern or a yellow-green-red pattern. Encourage them to repeat the unit of repeat (such as diamond-circle) at least three times.

Reflection perfection

With their simple colourful shapes, the stones are ideal for exploring symmetry:

- Offer the stones alongside a selection of small mirrors so children can investigate reflective symmetry independently.
- Encourage children to create simple symmetrical patterns with the shapes. As well as talking about the position of the stones, you might like to talk about their colour and which way round they are.

- Roll out some play dough, mark a line down the centre (vertically or horizontally), then position a selection of the stones on one side of the line. Can the children copy the design on the other half using reflectional symmetry? You might like to offer a mirror to check that the pattern is a reflection.

A world of shapes

Combine the shape stones with other shape resources to extend the learning further:

- Offer the stones as part of a collection of 2D and 3D shape resources, such as blocks, cutters, felt pieces, shape-sorter inserts, stamps or puzzle pieces. You might like to hide these shapes in a sensory bin filled with sand, rice, wooden beads, shredded paper, etc. Encourage children to find the same shape in different sizes and sort the items by shape.

- Look for different shapes in the world around us. You might like to match found objects to the shape stones (such as buttons, lids, greetings cards, sticky notes, oval leaves or flat pebbles). You could also look for shapes in the built environment and encourage children to draw them (such as doors, windows, road signs, clocks, tiles or road markings).

Books about shapes

A Bear in a Square by Stella Blackstone
Walter's Wonderful Web by Tim Hopgood
This is a Book of Shapes by Kenneth Kraegel

Get talking – useful words

Square, rectangle, circle, oval, diamond, triangle, side, corner, length, how long, how many, bigger, smaller, same size, next to, in front of, under, on top of, between, which way round, standing up, fit together, gaps, tesselate, reflection.