

3a. Grids and Shapes (JK-1)

After the 'Dog Lesson', we moved onto more abstract shapes – wanted to get away from recognizable objects

Activity i

We used a grid and showed 6 shapes in the grid.

No problems with the familiar shapes (heart, star, arrow, circle, arrows) - names for these shapes (used language to reduce the cognitive load)

Problems using pattern blocks

Covered it over and recreate

Scaffold to describe the placement – (grid); hypothesis – this supported students in their understanding

Had a “Shape Directions Task”

Students managed the shapes in part 2 after having played the partner game

Activity ii

Tangram shapes – first one looked like a tree (two big triangles, two small triangles)

JK – were challenged with this. Took it apart and made something simpler (two triangles in a line) – tried to attach meaning to it. But couldn't articulate positions.

I have 1 big triangle and 2 small – is it the same? Then students were able to talk about positions.

Triangle, square, Triangle: I see a square. And the rotation of the triangle was the hardest thing for them to figure out. Turned one triangle and they were able to get it. SKs had a challenge using the directions and positions.

What were you getting at with the students: wanted them to think about positions and locations, not just the image. Three shapes are related to one another but not as a narrative image.

Flexible thinking between full image and separate figures and their orientation/arrangement.

Activity iii

Use pattern blocks (figures combined to make 'dog' – gestalt visualization)

Pointing out to students the pattern block shapes (and negative space)

Made some pattern block figures with negative space, triangle space amongst the pattern block shapes. Colours helped her too.

Used language such as below, above.

Do you notice anything here? Oh the space of the triangle. By direct teaching, student was able to see it.

Same and different – looking to see what is the same and what is different?