

Story: [Shape Spotters](#)

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Setting of the school: A bilingual school in Texas, USA

Age group: 6-7 years old (Grade 1)

Number of children in the class: 30

Learning intention: To identify and learn properties of 2D and 3D shapes

Key mathematical vocabularies: squares, rectangles, rhombuses, circles, trapezoids, pyramids, cylinders, spheres and prisms

Resources needed: a copy of Shape Spotters, copies of worksheet, everyday objects

Synopsis by the publisher:

Ms. Carey's class is looking for shapes in their school. Rectangles, triangles, circles, and squares are just a few of the shapes that they find. Hidden in the art of this Level 2 reader, children will find and identify all sorts of shapes!

Starter / Teaching input (15 minutes):

I started by reading the story to the class, encouraging the children to look for possible shapes at every page of the book. Students showed an understanding and interest by raising their hands, eager to participate. In the book, each page focuses on a different room in a school, for example, the library, the music room, and the playground. At each point, I stopped the reading, asking students "*Which shapes can you identify in this room? What can you tell me about this shape? How many sides does a square have? How many corners? Can you come and point them out?*"

As my students were having breakfast at the time when the story was read to them (a normal practice for Pre-kindergarten to 1st Grade children at my school), they quickly identified links between the book and their real life. One of them said: "I can see a cylinder in that boy's yoghurt, but also in mine!" Suddenly, all children started to identify shapes in their breakfast items (see Figure 1). I took advantage of the situation to explain to them that it was exactly what we were going to do; to look for shapes in our real classroom, in our life, not only in a book.

Main activity (20 minutes):

After reading the story, I told them that it was our turn to be shape spotters around the classroom. I organized students in small groups and gave them a worksheet with the 2D and 3D shapes they were supposed to look for as a way to facilitate and guide their search. These shapes include squares, rectangles, rhombuses, circles, trapezoids, pyramids, cylinders, spheres and prisms. As I always do, I gave them different possibilities to record it, for example, they could draw a picture of the chosen real-world object and/or write down the name of the object (see Figure 2).

Those who finished the task early had the chance to look at the 'Shape Spotters' book and were encouraged to think about shapes they could find in different parts of their houses, like in their bedroom or the living room. After drawing a picture of it, they were asked to describe that object to a partner so they could guess the 'mystery object'. For example, while monitoring the group, one student said: "It is a prism; it has six faces which are rectangles and it is in my living room and ... I love to watch it".

Plenary (10 minutes):

As a plenary activity, I asked all the groups to go to the carpet with their work. Each group at a time presented and explained the shapes they could find in the classroom. Each student was encouraged to say at least two attributes of a shape using the academic language we were studying. This activity was used not only to check their understanding, but to also address any misconceptions. For example, a student mentioned that she found a circle in the ball, to which another student responded by saying: "That's not a circle, that's a sphere". I used this statement to clarify misconceptions about differences between 2D and 3D shapes.



Reflection:

This lesson was used as a revision of 2D and 3D shapes that had been introduced the previous day and as a bridge to link mathematics with students' real world. My main objective was to make them aware that mathematics, and specifically in this lesson, shapes, are all around us; we just have to pay attention and look. The lesson was very engaging from the beginning to the end. Students very much enjoyed the story.

Personally, I find the use of story picture books in Mathematics lessons constitutes a rich tool to include in the classroom. Not only are story picture books very visual and engaging, they also represent a link between the mathematics we do in the classroom and the students' real life. As a teacher, I can see it was a nice learning experience since they were talking about shapes in the school for the whole day. When they came from the music classroom, a student was very excited to tell me about what he had found out: "We have seen a lot of triangles in Ms Arredondo's classroom! And you know what, the name of that instrument is just that! Triangle!"

Figures:



Figure 1: Students realized that they could see different shapes in their breakfast items

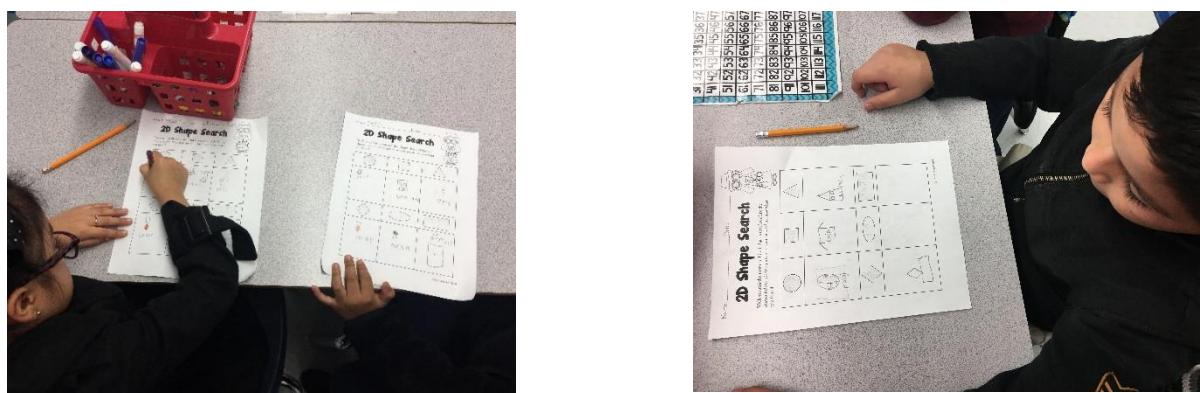


Figure 2: Students actively working on their search of 2D and 3D shapes in small groups and pairs