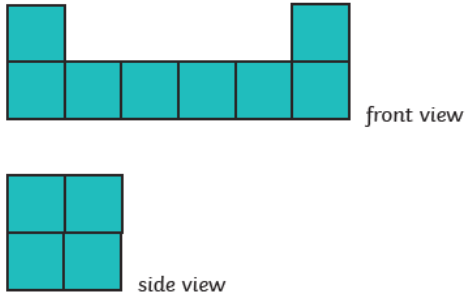


Thursday 4th February 2021

Red Group


- 1) Joshua draws two different views of the model his friend has made out of  $1\text{cm}^3$  interlocking cubes. Keeva looks at Joshua's drawing.



front view

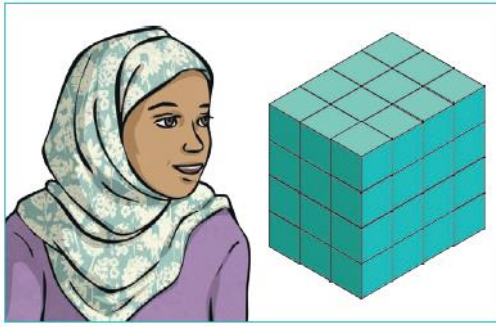
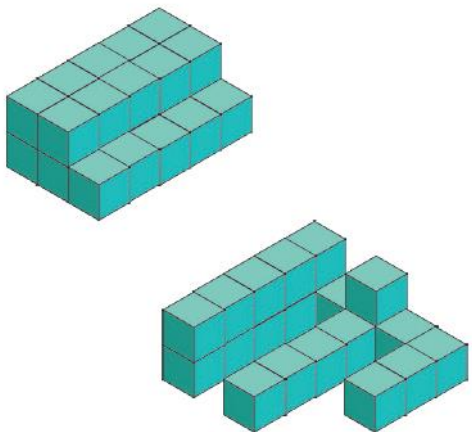
side view

I think that the model must have a volume of  $8\text{cm}^3$



The front view shows a 2x6 grid of cubes with the top-left and top-right cubes missing. The side view shows a 2x2 grid of cubes. Keeva is a girl with red hair in a ponytail, wearing a blue star-patterned shirt.

- 2) Shen thinks that both of these shapes put together will have the same volume as Emily's cuboid.



The first shape is a 3x3x2 cuboid. The second shape is a 3x3x2 cuboid with one corner missing. Shen is a girl wearing a purple top and a patterned headscarf. Emily's cuboid is a 3x3x3 cube.

Is Shen correct? Prove it!