



Year Five Maths Lesson 2



Fluency Starter

- Keep up your daily practice of 5 a day <https://corbettmathsprimary.com/5-a-day/> and challenge yourself to Bronze, Silver, Gold or Platinum!
- Or Complete Flashback 4 for your daily starter (on the next slide).
- Log on to Doodlemaths for 15 minutes each day and try and keep in the Green Zone.
- There are also some Maths activities on Purple Mash to complete.

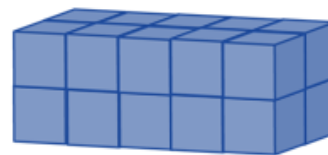


Fluency Starter

Flashback 4

Year 5 | Week 11 | Day 2

- 1) Each cube has a length of 1 cm.
What is the volume of the shape?



- 2) How many cm are the same as 6.25 m?
- 3) Complete the number sentence using <, > or =
4,752 ml 4.725 l
- 4) Convert $16\frac{1}{5}$ into a mixed number.

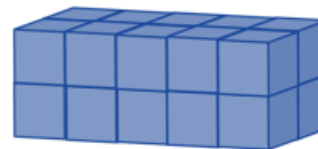


Fluency Starter Answers

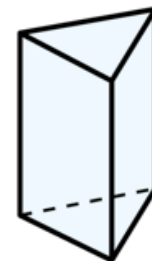
Flashback 4

Year 5 | Week 11 | Day 2

- 1) Each cube has a length of 1 cm.
What is the volume of the shape?



20 cm³



- 2) How many cm are the same as 6.25 m?

625 cm

- 3) Complete the number sentence using <, > or =
4,752 ml ☒ 4.725 l

- 4) Convert $\frac{16}{5}$ into a mixed number.

$3\frac{1}{5}$



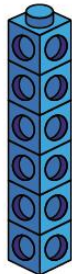
Lesson Aims

- I can compare volumes of different shapes

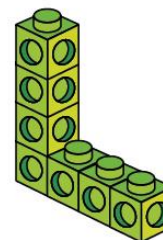
Compare volume

- 1 Whitney and Tommy have each made a shape using cubes. Each cube has a volume of 1 cm^3

Whitney



Tommy



a) What is the volume of Whitney's shape?

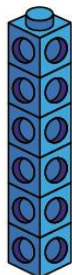
 cm^3

b) What is the volume of Tommy's shape?

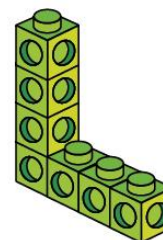
 cm^3

1

Whitney



Tommy



c) Whitney and Tommy are comparing the volumes of their shapes.



Whitney

My shape has a
greater volume because
it is taller.



Tommy

My shape has a
greater volume because
I used more cubes.

Who do you agree with? _____

Explain your answer.

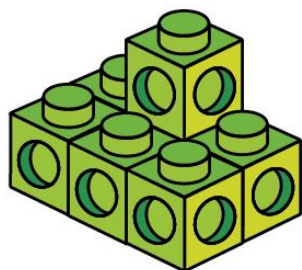


2

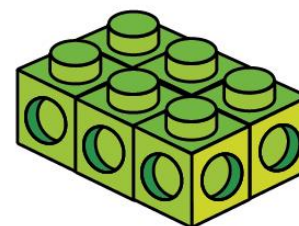
Each cube has a volume of 1 cm^3

What is the volume of each shape?

a)

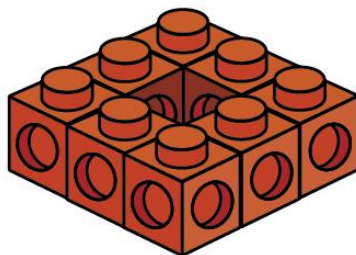


volume = cm^3

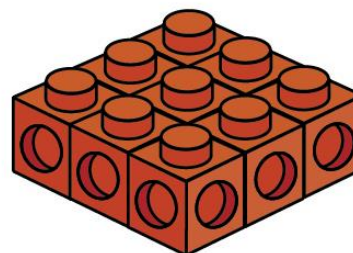


volume = cm^3

b)



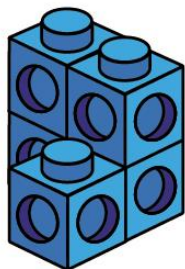
volume = cm^3



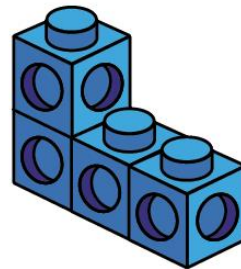
volume = cm^3

2

c)

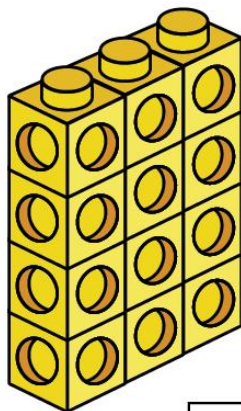


volume = cm^3

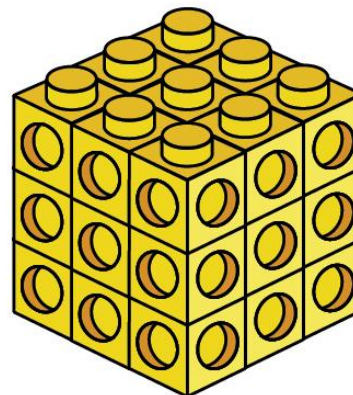


volume = cm^3

d)



volume = cm^3



volume = cm^3

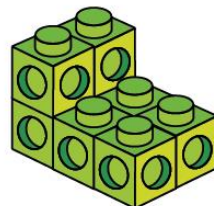
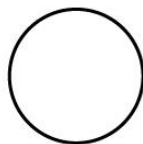
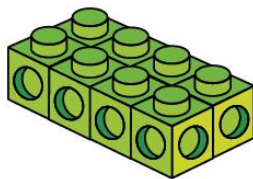
Tick the shape with the greater volume in each pair.



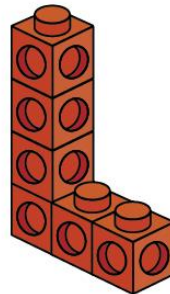
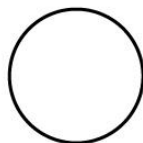
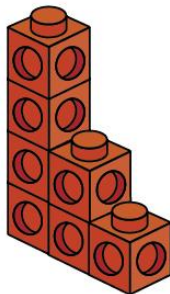
3

Write $<$, $>$ or $=$ to compare the volumes of the shapes.

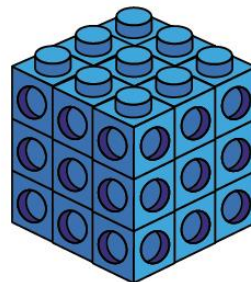
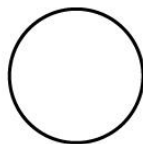
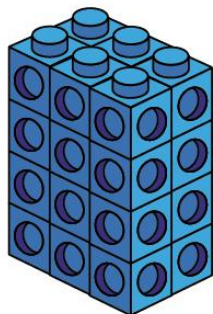
a)



b)



c)

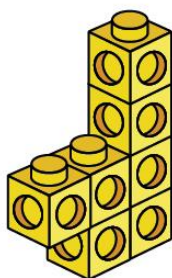




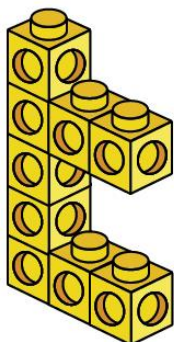
4

Here are some shapes made from cubes.

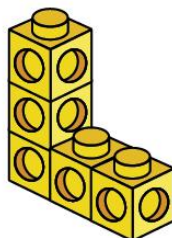
A



B



C



D



E

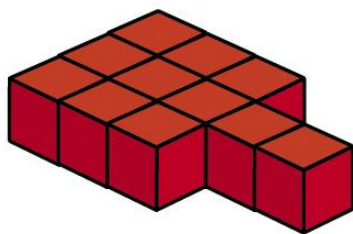


Put the shapes in ascending order of volume.

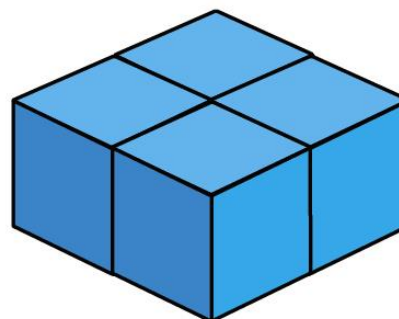
Make your own shapes for a partner to put in order.

5 Dora and Ron have each made a shape using cubes.

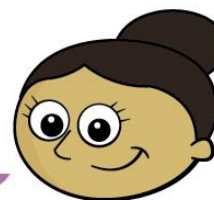
Dora



Ron



My shape has
a greater volume because it
has more cubes.



Dora

Do you agree with Dora? _____

Talk about it with a partner.

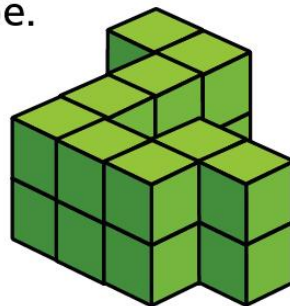




6

Amir, Eva and Alex have made shapes out of centimetre cubes.

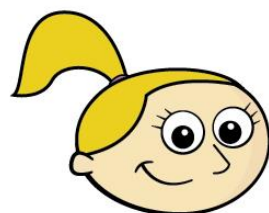
a) Amir has made this shape.



What is the volume of Amir's shape?

 cm^3

b)

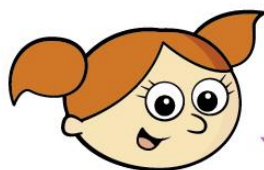


I used 24 cubes
to make my shape.

What is the volume of Eva's shape?

 cm^3

6 c)



The volume of my shape is greater than Amir's but less than Eva's.

What could the volume of Alex's shape be?

Compare answers with a partner.

 cm³




Fluency Activity

- See activity sheet Day 2
- Complete as many questions as you are able.



Fluency Activity Answers

Compare volume

White
Rose
Maths

- 1 Whitney and Tommy have each made a shape using cubes. Each cube has a volume of 1 cm^3

Whitney



Tommy



- a) What is the volume of Whitney's shape? 6 cm^3
- b) What is the volume of Tommy's shape? 7 cm^3
- c) Whitney and Tommy are comparing the volumes of their shapes.



Whitney

My shape has a greater volume because it is taller.



Tommy

My shape has a greater volume because I used more cubes.

Who do you agree with? Tommy

Explain your answer.

More cubes means a greater volume. Whitney's shape is taller but Tommy's is wider.

- 2 Each cube has a volume of 1 cm^3 . What is the volume of each shape?

a)

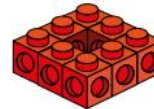


volume = 7 cm^3

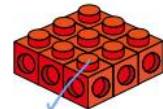


volume = 6 cm^3

b)

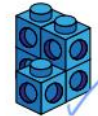


volume = 8 cm^3



volume = 9 cm^3

c)



volume = 5 cm^3



volume = 4 cm^3

d)



volume = 12 cm^3



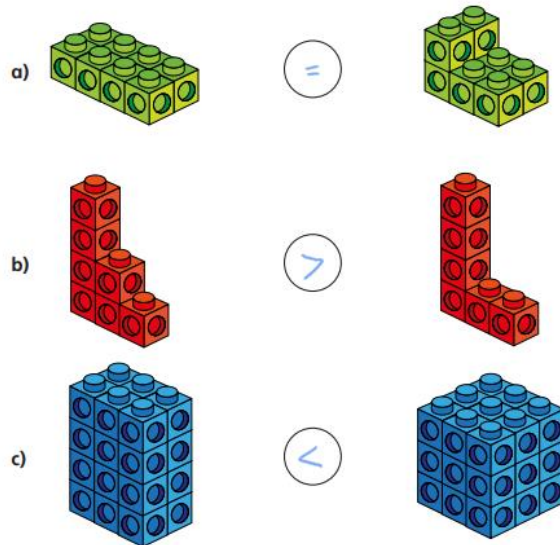
volume = 27 cm^3

Tick the shape with the greater volume in each pair.

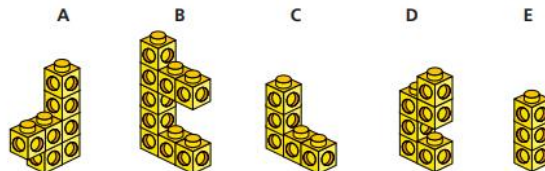


Fluency Activity Answers

- 3 Write $<$, $>$ or $=$ to compare the volumes of the shapes.



- 4 Here are some shapes made from cubes.



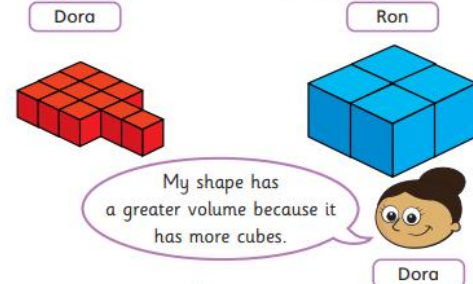
Put the shapes in ascending order of volume.

E C D A B

Make your own shapes for a partner to put in order.



- 5 Dora and Ron have each made a shape using cubes.



Do you agree with Dora? No

Talk about it with a partner.

- 6 Amir, Eva and Alex have made shapes out of centimetre cubes.

- a) Amir has made this shape.



What is the volume of Amir's shape?

18 cm³

- b) I used 24 cubes to make my shape.

What is the volume of Eva's shape?

24 cm³

- c) The volume of my shape is greater than Amir's but less than Eva's.

What could the volume of Alex's shape be?

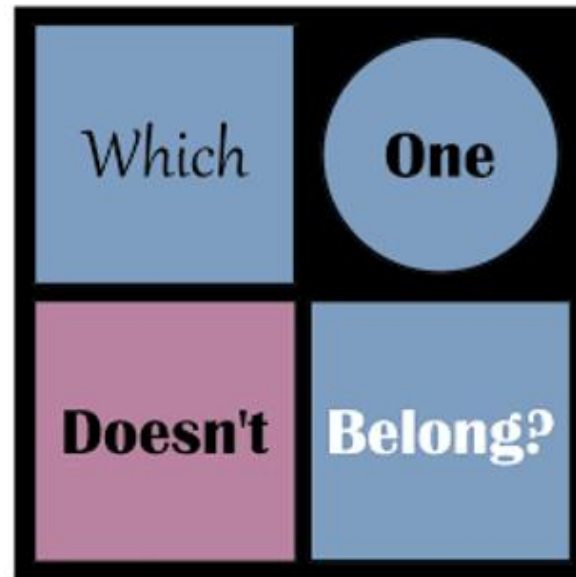
e.g. 20 cm³

Compare answers with a partner.





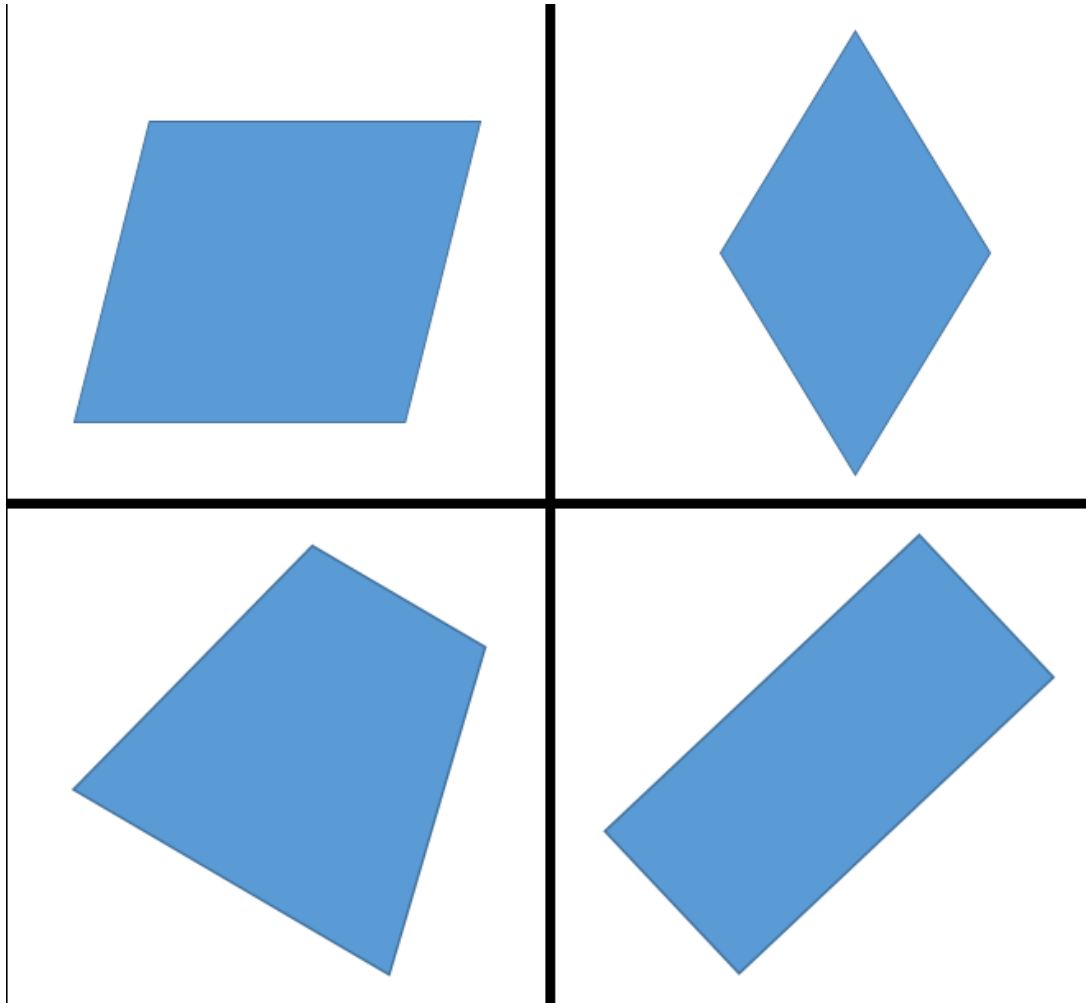
Problem Solving





Problem Solving

- How many ways can you find?





Problem Solving

- How many different ways did you find?
- Can you explain your reasoning?