

Wednesday 24th June 2020

Maths

WALT: Estimate Volume using 1cm³ cubes

Arithmetic Practice:

$$52 + \square - 14 = 54 \quad 62 + 16 + 59 = \square \quad \square + 63 - 33 = 116$$

$$\square + 11 - 43 = 31 \quad 37 - 5 + 71 = \square \quad 55 - 25 - 6 = \square$$

$$75 + \square - 68 = 10 \quad \square - 17 + 43 = 53 \quad \square + 62 - 9 = 107$$

Still unsure about volume?

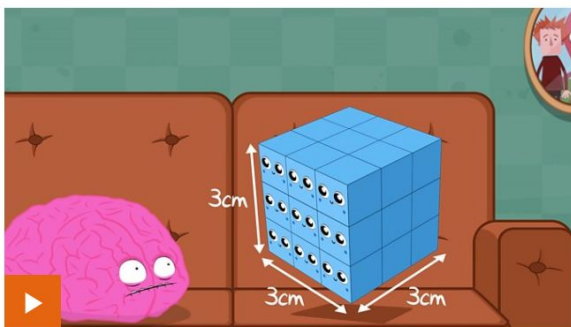
If you need help watch this video: <https://www.youtube.com/watch?v=LZxXUb9iAZc> as an introduction to volume and this one

<https://www.bbc.co.uk/bitesize/topics/zjbg87h/articles/zcrxtyc>

What is volume?

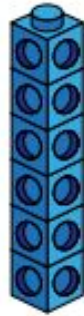
Part of Maths | Area and volume

+ Add to My Bitesize

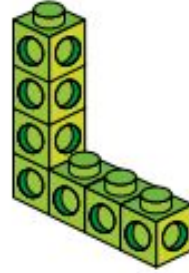


- 1 Whitney and Tommy have each made a shape using cubes. Each cube has a volume of 1 cm^3

Whitney



Tommy



- a) What is the volume of Whitney's shape? cm^3
- b) What is the volume of Tommy's shape? cm^3
- 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)

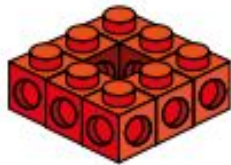


volume = cm^3

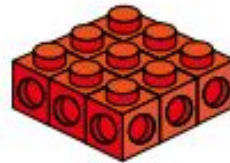


volume = cm^3

b)



volume = cm^3



volume = cm^3

c)



volume = cm^3



volume = cm^3

d)



volume = cm^3



volume = cm^3

Tick the shape with the greater volume in each pair.



Answers:

$52 + 16 - 14 = 54 \quad 62 + 16 + 59 = 137 \quad 86 + 63 - 33 = 116$

$63 + 11 - 43 = 31 \quad 37 - 5 + 71 = 103 \quad 55 - 25 - 6 = 24$

$75 + 3 - 68 = 10 \quad 27 - 17 + 43 = 53 \quad 54 + 62 - 9 = 107$

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



My shape has a greater volume because it is taller.



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 = cm^3



volume = cm^3

b)



volume = cm^3



volume = cm^3

c)



volume = cm^3



volume = cm^3

d)



volume = cm^3



volume = cm^3

Tick the shape with the greater volume in each pair.