



HOME LEARNING

YEAR 6

18/05/2020

Morning Message

Happy Monday Year 6!

We hope you had a lovely weekend and are ready for one more week of home learning before the half-term holiday. Remember to fill in your yearbook comments and return to PSA before Wednesday!

Today's riddle is courtesy of Seth! *What type of cheese is made backwards?*

Have a lovely day,

Mr Larke and Ms Yerlisu

Today's Picture



Writing

Imagine you have been sent by the school magazine *Simply Freds* to go scuba diving in the South China Sea in Thailand. Your job is to send a report back for the magazine of your adventure. This will be a recount.

Include: the trip on the boat to the dive site, all the equipment you had to wear, all the marine life/reefs that you saw under the water.

You will probably need to research scuba diving if you have never been before.

Tips for success:

- write in first person
- include chronological retelling of events of the day
- include descriptions of sights, sounds and smells
- include emotions and feelings at different points of the day: were you nervous? excited? gobsmacked?

Reading

The following is an extract from *Fenn Halflin and the Fearzero* by Francesca Armour-Chelu

Day 1: Read the extract. Underline words you do not understand and make notes on parts of interest.

Prologue

They'd never escape them. No one ever escaped.

Tomas knew that, but had refused to give up. He'd been on the run with Maya for two years now and the Terra Firma had never even got close. But that was before this storm had blown them off course. If only they could have got back to East Marsh, the Resistance would have hidden them deep in the almost impassable fenland, where the Terras would never find them.

But it was too late for those thoughts now. Sleeted rain stung like knives on his face and waves swamped the deck. His eyes were black-ringed and bloodshot, and his body clumsy with tiredness. To prevent from being swept overboard he'd lashed himself to the barge's wheel, steering blindly into the wall of water ahead.

Tomas looked through the hatch to see if Maya was all right; she had been in no fit state to help so he'd made her get below deck. A burst of lightning flashed on her face. Tendrils of damp hair clung to her pale forehead as she huddled on the bed, holding their new baby tight. He tried to smile encouragingly to her, but then he heard the other ship's engines growing louder.

Tomas untied himself from the wheel and cut the engine. He'd pushed the Albatross as hard as he could but now the hunt was over. He stumbled over to the cabin steps and staggered down, bolting the hatch behind him. The lamp was guttering out; they had to move quickly.

"Now!" he shouted. As he reached for the baby, Maya's eye was caught by the glint at Tomas's neck: a chain with a small key on it, the gold grip shaped like an intricate knot of rope.

"The key!" she cried. Tomas ripped the chain off and looked around wildly. The portholes were at sea level and sealed, so there was no way to get rid of it, and nowhere the Terras wouldn't look. Instead he looped the chain around the baby's head; if the baby was found they were done for anyway. Even if they weren't recognised, it was prohibited to give birth at sea. There were to be no more true Seaborns.

Tears streamed down Maya's face and her hands were trembling as she covered the baby with desperate, heartbroken kisses.

"Everything will be all right," Tomas lied, as he brushed the tears from her lovely eyes; one green and one blue. Then he swaddled an otter skin around the baby, so tight it might think it was still being held and lifted a curtain to reveal a hidden cupboard under the bed. He slid the door open and behind that pushed another secret panel aside – a secret within a secret. Tomas laid the baby gently down. Then he closed the doors, dropped the curtain back and took Maya tightly in his arms.

They lay trembling in the dark as the lightning strikes blazed electric blue in the cabin. With each flash the other ship's shadow grew larger, like the dorsal fin of an enormous shark. Finally it pulled alongside them; the banging turbines reverberated in their bones, and the sour stench of diesel made their eyes water. The waves buffeting their boat stilled as the other ship absorbed the energy of the ocean, then all fell quiet.

In the eerie silence, Tomas and Maya peeped through the porthole. It was the Warspite, one of the Fearzero fleet; the only ships permitted on that tract of sea. Vast and brutal, it was more like a fortress than a ship. Sheets of iron, welded together with rivets the size of a man's clenched fist, soared up like a cliff. Lines of rust bled down the iron strakes. On the bow was the Terra Firma logo: a black triangle with the 10 initials TF in the centre on a scarlet background. Ladders lined the sides and high up, winking in the night, lights began their descent. The Terras were coming.

There was a clatter as grappling lines were thrown onto the barge and scraped on the deck above, then came the vicious snarls of the Malmuts: Terra Firma dogs. Someone swore at the bolted hatch before striking it with a heavy blow. It was wrenched open. Three huge Malmuts squeezed their sharp muzzles in through the gap and sniffed inquisitively. Scenting fear, the very thing they were bred to detect, the dogs skidded down the steps in a snarling frenzy; their claws slipping on wet treads and their fur claggy with sweat. The creatures crashed through the furniture unseeing; Malmuts could sniff a frightened human a mile away, but barely saw two feet in front of them. They scabbled up against Maya and Tomas, growls curdling in their throats. Six Terras followed, dressed in grey uniforms, their faces completely covered by black masks that had narrow openings for the eyes and mouth with mesh behind them, to protect from the diseases Seaborns were said to carry. Across their bodies they wore a thick strap that held a gun and a short steel truncheon.

"What a stench!" came a muffled voice from behind the mask as the Terra pulled the Malmuts back, making them yelp in pain. Laughter followed.

"That's Seaborns for you," said another. "Filthy Jipseas and their stinking fish."

"Cockroaches!" another Terra spat. "Swarming back to land, spreading disease!" He jabbed the end of his truncheon under Tomas's chin and lifted his head so he could see him better, then the Terra signalled to another who disappeared back onto the deck.

"I have a permit ... Wait!" Tomas pleaded, buying time. The permit was fake of course, but Tomas held on to the hope that this might be a routine inspection. There was still a chance these Terras didn't know who they had

caught. Without hesitation the Terra flicked his truncheon away from Tomas to Maya, striking her hard on the mouth. Blood spurted in an arc across her cheek, but she knew better than to cry out and gripped Tomas's arm to stop him trying to defend her. These days no one cared if a Seaborn was killed and tossed overboard; the only good Seaborn was a drowned Seaborn in the eyes of the Terra Firma.

A whistle sounded and Tomas and Maya were dragged up onto the deck. At the barge's bow end stood a lone figure. His long grey coat flapped at his ankles and a large, hooded cowl covered his face. He was gently tapping a truncheon in the palm of his hand, as if keeping time to music only he could hear. Tomas and Maya were pushed towards him.

"We have permits, sir," Tomas begged, pulling out the papers from his pocket. He had paid highly for them on the black market; in a world without money, they had traded every piece of jewellery they owned. But before the man even turned around, Maya knew who it was; she'd already spotted the gleam of the metal straps supporting his shattered legs. Chilstone. Commander of the Terra Firma. She let out a cry of fear; countless Seaborns had been drowned at Chilstone's command.

"Maya," Chilstone murmured quietly. He pulled back his cowl, revealing a long, narrow face. He was delicately built, with soft skin so fishy-white and translucent that blue veins could be seen snaking at his temples. A fine web of lines was etched across his face, left like tidemarks from constant pain making him grimace and twitch uncontrollably. His large eyes were pale and gelatinous, like oysters, and he missed nothing as he looked Tomas and Maya over. Inhaling deeply to prepare himself, he took one shuffling step towards them, wincing as the steel gears implanted in his knees cranked open and took his weight. He'd known what the price of saving his legs would be – that each time he moved the iron pegs embedded in his shin would rip at the muscles they anchored – but he never complained.

Instead he thanked his suffering; Pain was his trusted counsellor, the confidant who never slept, muttering in his ear all night long, reminding him of the peril of clemency. When Pain succeeded in wrenching Chilstone from his troubled sleep, the nightmares played on. He saw himself in his mind's eye: on his hands and knees – what was left of them – crawling through the sinking Fearzero's twisted hull, dragging his shredded legs behind him like bloodied rags.

A Terra handed Chilstone the permits. He examined them, nodding to himself, then frowned, as if he'd just heard some sensible advice but was reluctant to take it. His fist clenched as he stared at the permit and the Terra backed away, well out of striking range. But Chilstone continued to inspect the forgery; the names were false of course, but it was useful to note the forger's style. Then, without warning, Chilstone held the permits aloft and opened his fingers, letting the storm rip them into the waves. Tomas and Maya Demari had played no part in the assassination attempt against him, but they were leaders of the Resistance and without them it would crumble. All trace of the Demaris had to be obliterated. But Chilstone couldn't do it here; even weighted bodies had an irritating habit of washing ashore, such was the power of the sea and its brutal new currents. Chilstone didn't want to make martyrs of them, and make the Seaborns even more determined to fight back. He jerked his head towards a Terra. Immediately Tomas and Maya were hauled up the ladders to the Fearzero, where Maya's screams became lost in the icy wind. The Malmuts were kicked back into their steel cage, which was hoisted up the Fearzero's side, leaving just one Terra on deck. He quickly painted a crude yellow scythe on the barge's bow.

Volume - Counting Cubes

Objectives:

- finding volumes by counting cubes
- finding the volumes of cuboids.

In this lesson, you will calculate the volume of 3D shapes by counting cubes. A cubic centimetre is the volume within a cube that has sides of length 1 cm. It has a volume of 1 cm^3

What is volume?

Volume is a measure of the **amount of space there is inside a 3D object.**

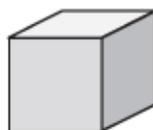
Volume can be measured in **centimetre cubes, cm^3** , and **metre cubes, m^3** .

Volume and capacity – cubic centimetres and cubic metres

Remember that volume refers to the amount of space occupied by an object or substance. Commonly used volume measurements are the cubic centimetre and the cubic metre.



One cubic centimetre is 1 cm long, 1 cm wide and 1 cm high. The symbol we use for cubic cm is cm^3 .
 $1 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} = 1 \text{ cm}^3$



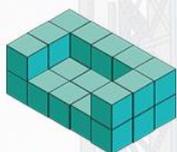
One cubic metre is 1 m long, 1 m wide and 1 m high. The symbol we use is m^3 .
 $1 \text{ m} \times 1 \text{ m} \times 1 \text{ m} = 1 \text{ m}^3$

Volume - Counting Cubes

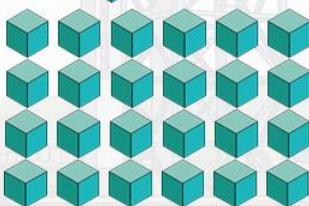
1) Find the volume of each shape. Then, order them from the greatest volume to the smallest volume.

From greatest volume to smallest volume: $C > B > A$

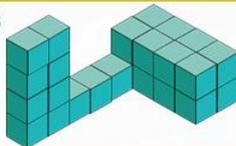
A



24 cm^3

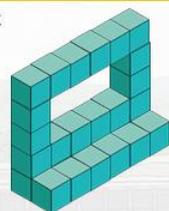


B



27 cm^3

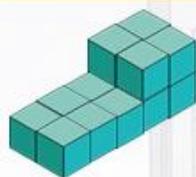
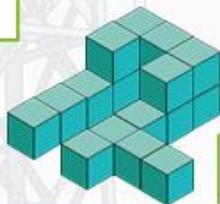
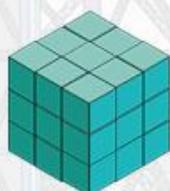
C



28 cm^3

Volume – Counting Cubes**Deeper**

Li thinks that both of these shapes put together will have the same volume as Anna's cube. Is Li correct? Prove it!

 14cm^3  18cm^3 

Anna's cube has a volume of 8cm^3 .

The first shape has a volume of 14cm^3 .
The second shape has a volume of 18cm^3 .
The total volume of both shapes is 32cm^3
not 27cm^3 so Li is incorrect.

Volume – Counting Cubes**Deepest**

This cube is made from 1cm^3 interlocking cubes.

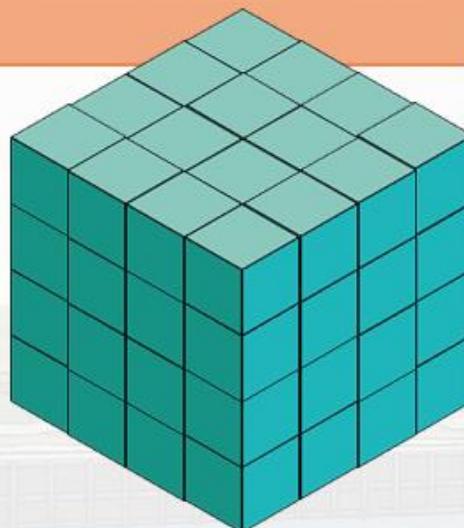
Imagine that the cube has been made with a hollow centre so that only the faces are made from the interlocking cubes.

What is the volume of the cube?

$$64\text{cm}^3 - 8\text{cm}^3 = 56\text{cm}^3$$

If another similar hollow cube was made that had the dimensions $6\text{cm} \times 6\text{cm} \times 6\text{cm}$, what would be the volume of the cube be?

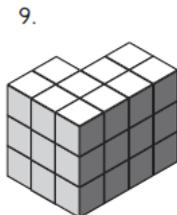
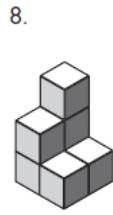
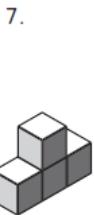
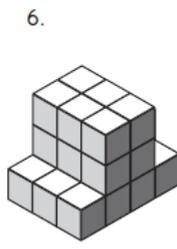
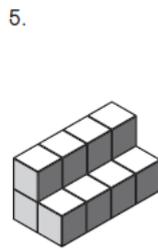
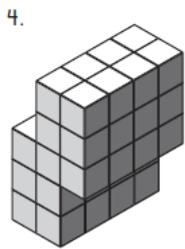
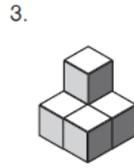
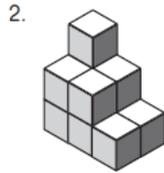
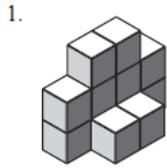
$$216\text{cm}^3 - 64\text{cm}^3 = 152\text{cm}^3$$



TASK

What is the volume of each shape below?

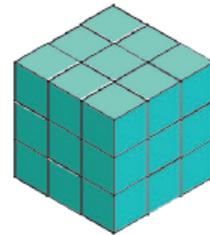
 = 1 cubic unit



- 1) a) This cube is made from 1cm^3 interlocking cubes.

Imagine that the cube has been made with a hollow centre so that only the faces are made from the interlocking cubes.

What is the volume of the cube?

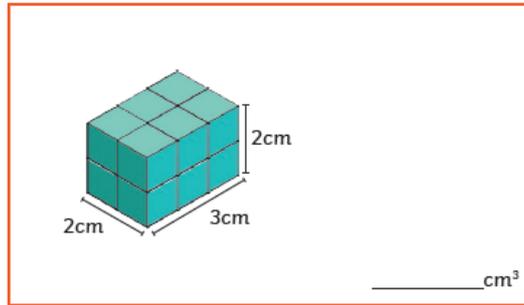
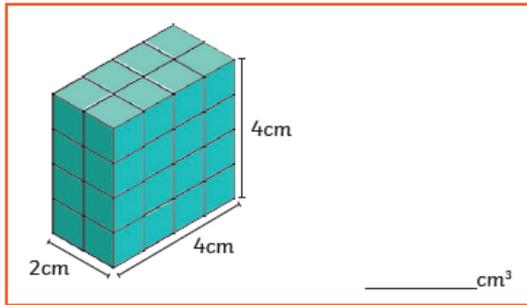


- b) If another similar hollow cube was made that had the dimensions $5\text{cm} \times 5\text{cm} \times 5\text{cm}$, what would the volume of the cube be?

_____ cm^3

2) I use 1cm^3 interlocking cubes to make some different size cuboids. I make cuboids with different side lengths of 2cm, 3cm and 4cm. Here are two of my cuboids:

a) What are the volumes of each cuboid?



b) How many more cuboids can I make which have side lengths of 2cm, 3cm and 4cm? What is the volume of each different cuboid?

1) Joshua draws two different views of the model his friend has made out of 1cm^3 interlocking cubes. Keava looks at Joshua's drawing.



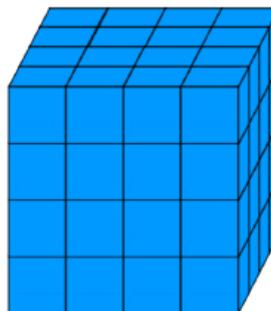
front view

I think that the model must have a volume of 8cm^3

side view

Extension

I have 64 small cube shaped boxes with a side length of 8mm. I can fit my small boxes perfectly into a larger cuboid as the image illustrates. What is the volume of the large cuboid?



Weekly Spellings

You should continue to revise words/spelling patterns that you have identified as necessary. We have provided another 15 tricky words if you need them. Remember, it is more important that you revise all the spelling patterns from the KS2 National Curriculum first.

1. bacteria
2. cafeteria
3. criteria
4. advantageous
5. flamboyant
6. campaign
7. liaison
8. eerie
9. questionnaire
10. courtesy
11. accessible
12. conceit
13. pneumatic
14. obey
15. quarrel

Foundation Topic Work (for the week)

Ms. Greenaway has kindly provided a follow up task for the evolution module that she taught earlier in the year. You will find a PDF of the task on the school website next to home learning. There are a few slides reminding us what evolution is and some questions to answer in your home learning book. The most exciting part of the task is the extension and the chance to make models of human and chimpanzee skulls!

Diary

Write a diary of what work and activities you did today. Remember to include your thoughts, feelings and opinions.