Catalogue

What do you see in this picture?

[Tortie Cat – Free High Resolution Photo
http://www.photos-public-domain.com/2016/08/21/tortie-cat/]

Yes, a cat. And did you say, “ON wooden steps”?

How are a cat and wooden steps the same? Well, you could paint them both red.

How are they different? Well, if you did paint them both red, the cat would not be happy, and the wooden stairs wouldn’t mind.

Also, the cat eats, goes to the toilet and “meows”. So, the cat is alive.

But the steps aren’t alive – the steps don’t breathe, dance or use a computer.

As the cat is alive, it also does some of the other things you and I do – we grow and we respond to things [such as shiver when we get cold]. You and I [and all the animals] move around and can have babies. [Wooden steps don’t do that.]

Show your parents
Chapter 16.

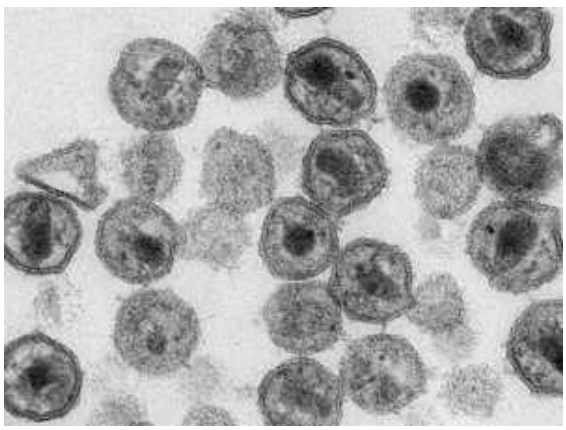
Living things [you can call them organisms] come in different sizes – they can be huge like dinosaurs and elephants, or tiny – so tiny that you can only see them with microscopes [special tools which make things look bigger].

Do you know what this is?

Good guess! A microscope.

The smallest organisms are very simple – they are made up of just a few pieces joined together – we call that a cell. Cells are like jelly and they are wobbly. If you had one on your hand, it would be way too small for you to see it.

So, the smallest living thing [organism] is just one cell. Here is a microscope picture of organisms which are just one cell. You can see they have a wall and a piece of black stuff in the middle – not much else. They don't have ears and they don't wear glasses.



[Public domain]

Show your parents
Chapter 16.

You and I are made of millions and millions of different sorts of cells – different sorts make up our skin and our muscles, our eyes and every part of us.

Come to think of it, you don't have a single-celled organism on your hand right now – you have tens of thousands of them. That's usually fine, some sorts of single-celled organisms are meant to be on your hands – they are helpful. BUT, you can get bad cells on on your hands – and, they can make you sick. That's why when you *are* sick, you wash your hands and try not to pass bad cells [called germs] on to other people.

OK, one way the cat [and you] and the wooden steps are the same is that you are all made of cells. Yes, the wooden steps are dead. But wood comes from trees, and trees are living [until they die, or are cut down]. So, trees are made of cells.

Yes, the cells in the wood which the cat is sitting on are all dead now – but their walls are still there – they make the wood strong.

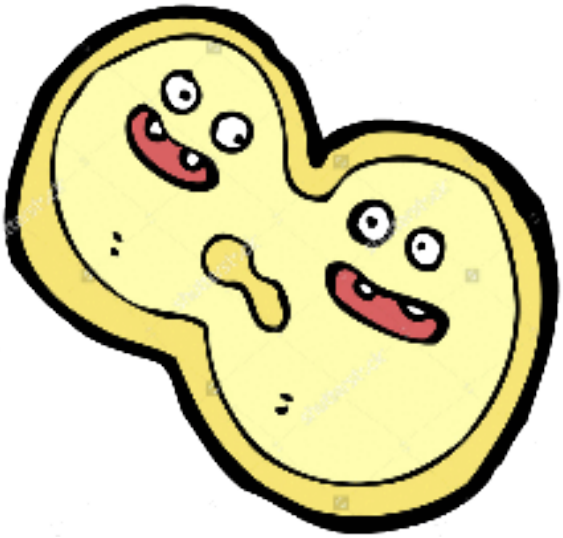
[Wikimedia Commons, the free media repository. Normal gastric mucosa. Many thanks https://commons.wikimedia.org/wiki/File:Normal_gastric_mucosa_intermed_mag.jpg]

This is looking at part of the stomach with a microscope – there are lots and lots of different sorts of tiny bits. And that is only from one small place – what about your muscles and skin? Every part has different sorts of cells.

Show your parents
Chapter 16.

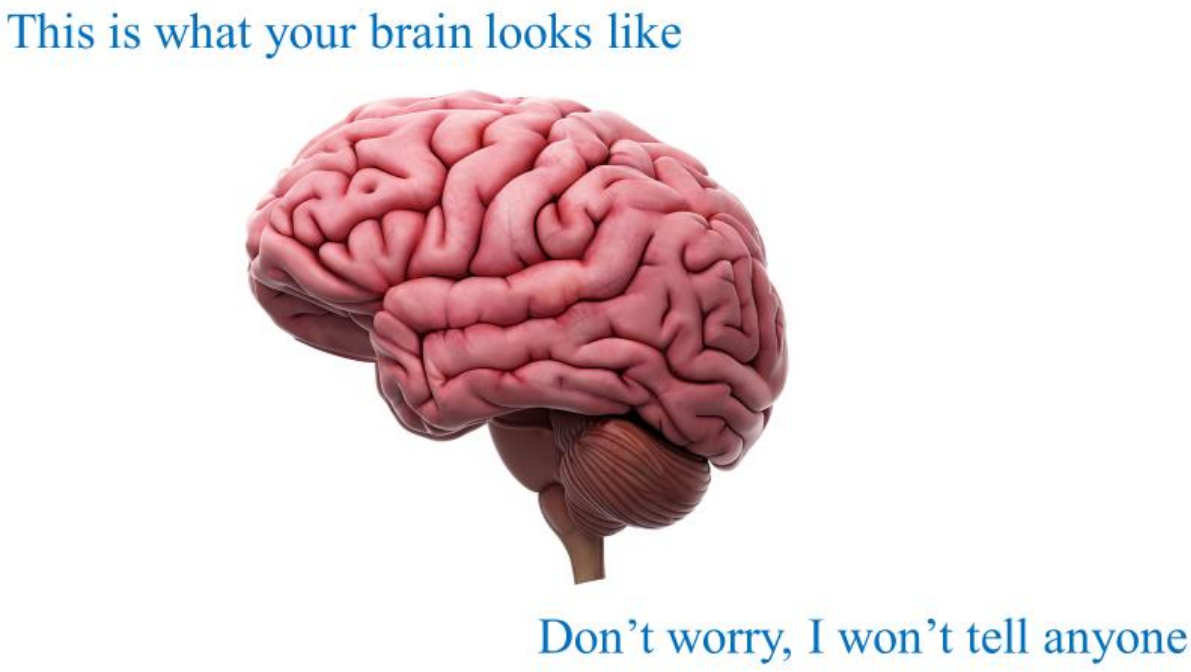
The last hard bit

OK, this is the last hard bit for the day.
Organisms produce more organisms. How do single-celled organisms produce more organisms? Simple, they just break into two.



[Oscar Cell & Friends. Kayla Reece. Many thanks.
https://simplebooklet.com/publish.php?wpKey=1LOoJ4ClXrSIwv7rHdhg79#page=0]

For organisms with lots of different cells, it’s a lot more complicated.



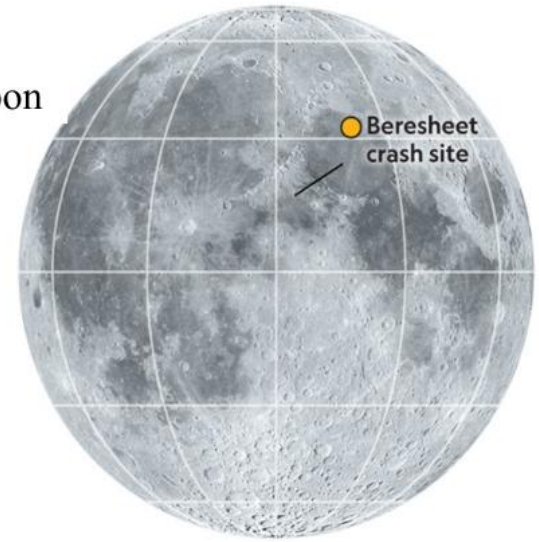
Show your parents
Chapter 16.

Dreams

The only country to have ever landed a spaceship on the Moon is the USA.
In mid-2019 another country, Israel, sent a spaceship [with nobody onboard] to the Moon.
Bad luck. It crash landed.

So, you will always be able to say you were alive when Israel sent a spaceship to the Moon [you don't have to mention that it crashed].

2019
Israel places a
spaceship on the Moon



Q: Where does a penguin go when it loses its tail?
A: A re-tail store.

Q: Which side of a penguin has the most feathers?
A: The outside.