

# GROW SMART



An initiative by GROWTHPOINT PROPERTIES

Sponsored by



In collaboration with



In collaboration with Province of the EASTERN CAPE EDUCATION

Practise Edition 2018

# PRACTISE MAKES PERFECT



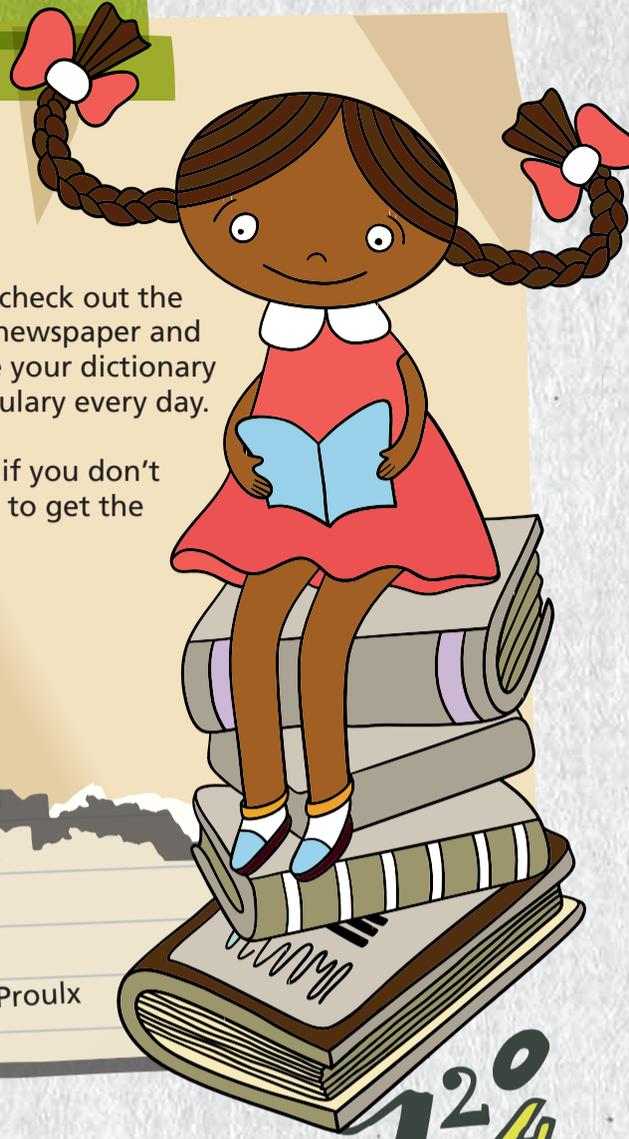
# DEAR GROWSMARTER !

Welcome to the practise edition of the Growsmart newspaper for 2018! This is your very own copy and you can take it home to read it. Remember, the best way to improve your literacy is to practise reading and writing as often as you can.

We really hope you will enjoy reading this newspaper. Do the maths exercises and check out the list of words in 'Do you know these words?' In fact, check out all the words in the newspaper and write down any words that are new to you or that you don't understand. Then use your dictionary to look up the meaning of the words. Try to add a new word or two to your vocabulary every day.

We wish you the best of luck for the 2018 school year! Listen to your teacher, and if you don't understand something, don't be shy to ask questions – because that's the only way to get the answers you need.

Until next time,  
The Growsmart team.



"If you don't have time to read, you don't have the time or the tools to write. Simple as that." - Stephen King

"Today a reader, tomorrow a leader." - Margaret Fuller

"Writing comes from reading, and reading is the finest teacher of how to write." - Annie Proulx

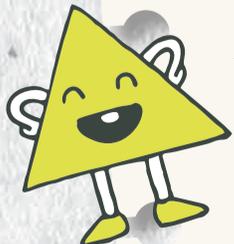
## Maths

# 1

CALCULATE THE FOLLOWING.  
YOU MAY USE ANY STRATEGY.

- $3\,550 + 750 \times 1 =$  .....
- $500 \div (200 + 0) =$  .....
- $5\,988 \times 100 + 2 =$  .....
- $310 \times 1\,000 \times 10 =$  .....
- $\frac{1}{5}$  of  $100 + 35 =$  .....
- $(15\,010 + 201) \times 100 =$  .....
- $6\,500 + (15\,000 - 7\,000) =$  .....
- $26\,321 \times 0 \div 1 =$  .....
- $40\,000 \div 2 + 13\,000 =$  .....
- $(84\,017 - 17) \div 2 + 2\,800 =$  .....
- $4\,010 + 110 + 1 =$  .....
- $45\,000 \div (0 + 15\,000) =$  .....
- $59\,898 \times 10 + 2 =$  .....
- $13\,250 \times 100 \times 10 =$  .....
- $125 \div 25 \times 3 =$  .....

- $(11\,999 + 101) \times 1 =$  .....
- $6\,750 + (10\,050 - 6\,750) =$  .....
- $11\,110 \times 0 \div 1 =$  .....
- $10\,100 \div 2 + 5\,050 =$  .....
- $(65\,789 - 789) \div 2 + 7\,500 =$  .....
- $234 + 456 =$  .....
- $1\,024 - 25 \times 2 =$  .....
- $12\,567 + 24\,433 =$  .....
- $550 \times 1\,100 =$  .....
- $625 \div 25 =$  .....
- $833 + 67 \times 100 =$  .....
- $\frac{2}{5}$  of  $200 + 66 =$  .....
- $(1\,750 + 250) \times 5 =$  .....
- $18 + (26 - 13) + 119 =$  .....
- $10\,000 \times 0 =$  .....
- $6\,000 \div 6 + 500 =$  .....
- $(264 - 164) \div 4 + 1\,495 =$  .....
- $11\,111 - 111 + 11 =$  .....
- $210 \div (3 + 4) =$  .....
- $400 \times \frac{3}{8} =$  .....
- $6,25 + 5,75 + 2 =$  .....



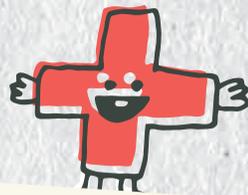
PAGE 2



ANSWERS  
1. 4 300, 2. 2,5, 3. 598 802, 4. 3 100 000, 5. 55, 6. 1 521 100, 7. 14 500, 8. 0, 9. 33 000, 10. 44 800, 11. 4 121, 12. 3, 13. 598 982, 14. 13 250 000, 15. 15, 16. 12 100, 17. 10 050, 18. 0, 19. 10 100, 20. 40 000, 21. 690, 22. 974, 23. 37 000, 24. 605 000, 25. 25, 26. 7 533, 27. 146, 28. 10 000, 29. 150, 30. 0, 31. 1 500, 32. 1 520, 33. 11 011, 34. 30, 35. 150, 36. 14



# Maths 2



11	16	15
18	14	10
13	12	17

ANSWER AS MANY AS POSSIBLE. DO NOT PAUSE IF YOU DO NOT KNOW THE ANSWER IMMEDIATELY.



- $1\ 000 \times 0 =$
- $89 + 2 =$
- $500 \div 4 =$
- $550 + 50 - 100 =$
- $22 \times 100 =$
- $325 \div 0 =$
- $398 \times 1 =$
- 1 500 doubled =
- $3\ 000 \div 1\ 000 =$
- $0,45 + 0,55 =$
- $1\ \frac{1}{2} + 5\ \frac{1}{2} =$
- $90 \times 90 =$
- $288 + 12 =$
- $2\ 400 \times 2 =$
- $2\ 000 \times 20 =$
- Half of 11 =
- $10 - 5\ \frac{1}{2} =$
- $23 \times 3 =$
- $4\ 000 \div 500 =$
- $17 \times 20 =$
- $12 \times 12 =$
- $52 + 18 =$
- $1\ 000 \div 5 =$
- $550 + 150 - 50 =$
- $7 \times 100 =$
- $199 + 10 =$
- $222 \times 1 =$
- 200 tripled =
- $6\ 000 \div 1\ 000 =$
- $0,85 + 0,15 =$
- $1\ \frac{1}{2} + 15 =$
- $9 \times 300 =$
- $677 + 23 =$
- $6\ 300 \times 2 =$
- $20\ 000 \times 2 =$
- Half of 51 =
- $200 - 5\ \frac{1}{2} =$
- $25 \times 3 =$
- $1\ 000 \div 1\ 000 =$
- $0 \times 305 =$
- $29 \times 2 =$
- $39 + 25 =$
- $10\ 000 \div 2 =$
- $250 + 250 - 200 =$
- $13 \times 100 =$
- $199 - 100 =$
- $314 \times 1 =$
- 7 250 doubled =
- $4\ 000 \div 10 =$
- $0,99 + 0,01 =$

ANSWERS  
1. 0, 2. 91, 3. 125, 4. 500, 5. 2 200, 6. 0, 7. 398, 8. 3 000, 9. 3, 10. 1, 11. 7, 12. 8 100, 13. 300, 14. 4 800, 15. 40 000, 16. 5, 17. 4, 18. 5, 19. 8, 20. 340, 21. 144, 22. 70, 23. 200, 24. 650, 25. 700, 26. 209, 27. 222, 28. 600, 29. 6, 30. 6, 31. 16, 32. 2 700, 33. 700, 34. 12 600, 35. 40 000, 36. 25, 37. 37, 38. 75, 39. 1, 40. 0, 41. 58, 42. 64, 43. 5 000, 44. 300, 45. 1 300, 46. 99, 47. 314, 48. 14 500, 49. 400, 50. 1



# Maths 3

SEE IF YOU CAN SOLVE EACH PROBLEM. YOU WILL NEED TO BE ABLE TO EXPLAIN YOUR ANSWERS MATHEMATICALLY.

- A tree was planted in 1772. How many years old will it be in 2020?  
(A) 218 (B) 236 (C) 248 (D) 256 (E) 284
- A baby boy's mother is 28 years old when he is born. When the boy is 13 years old, what will be the age difference (in years) between him and his mother?  
(A) 13 (B) 18 (C) 26 (D) 28 (E) 41
- There are 4 piles of coins. There are 6 coins in the first pile, 10 in the second, 12 in the third, and 16 in the fourth pile. If Alexandra shares all the coins equally with Luke, how many coins will Luke receive?  
(A) 10 (B) 12 (C) 18 (D) 20 (E) 22
- What is the missing number?

	?			
	114		104	
	60	54	50	
24	36	18	32	

- (A) 218 (B) 66 (C) 164 (D) 110 (E) 72

- A mother, father and their twin daughters each have 32 teeth. The grandmother and grandfather each have 23 teeth. How many teeth does the family have in total?  
(A) 100 (B) 122 (C) 166 (D) 174 (E) 142
- Farmer William is preparing to plant a crop of potatoes. The field will have 140 rows with 210 potato plants in each row. Farmer William says that they will plant the entire field in 14 hours with their planting machine. How many potato plants will they plant in each hour?  
(A) 2 000 (B) 2 050 (C) 2 100 (D) 2 150 (E) 2 200
- Mrs. Benjamin has bought treats for the learners in her class. She bought 10 small toys for R5,39 each, and 10 packets of sweets for R7,99 each. How much change did she receive if she paid with a R200 note?  
(A) R66,20 (B) R21,00 (C) R122,00 (D) R68,79 (E) R15,11



# OUR HOME IN SPACE

There are eight planets that circle around the Sun, and Earth is one of them. There used to be nine planets, but in 2006 it was decided that the ninth planet, Pluto, wasn't really a planet after all, but rather a "dwarf planet". The path that each planet follows as it circles the Sun is called an "orbit". All the planets also rotate, which means they spin like a basketball spinning on the tip of a player's finger. The Sun and all its planets are called the Solar System.

The Sun is a star – one of billions and billions of stars in the universe. The size of the Sun is about as big as two hundred Earths. The planet closest to the Sun is called Mercury. We say "closest", but the distance from Mercury to the Sun is about the same as if you walked 4 500 times around the Earth! A year on Mercury is about 88 days, because that's how long it takes to circle the Sun.

The second planet from the Sun is Venus, and it's about the same size as Earth. Venus rotates (spins) very slowly. In fact, Venus takes about 225 of our days to rotate once, while Earth rotates once every 24 hours.

The third planet from the Sun is our home, Earth. Our planet is exactly the right distance from the Sun for life to flourish, because the temperature is not too hot or too cold. We have one moon

which rotates very slowly. In fact, it rotates at just the right speed so that when you look at the Moon, you will always see the same side!

The next planet is Mars. A day on this reddish planet is about the same as on Earth. Mars has two moons called Deimos and Phobos.

Then we get Jupiter, which is the largest planet in the Solar System and it has 16 moons. Jupiter is so big that 1 300 Earths could fit inside it. The amazing thing about this huge planet is that it only takes about 10 hours to rotate – which means it has a very short day.

The coolest thing about the sixth planet, Saturn, is that it has rings. The rings are not solid, but are actually made up of millions of pieces of rock and ice that circle the planet. Jupiter and Uranus also have rings, but Saturn's rings are much easier to see.

Uranus is the second last planet and it takes about 84 Earth years to orbit the Sun. And finally, at the end of our journey is Neptune – about 4 504 000 000 kilometres from the Sun.

Source: [www.sciencemonster.com](http://www.sciencemonster.com)

## WHAT IS MATTER?

All solids, liquids and gases are what we call "matter". Matter is anything that takes up space and has mass, which means it can be weighed. Because there are different kinds of matter, we need to know what makes each one special and how they behave differently from other kinds. We call these differences "properties". For example, water is a liquid that can flow and it has no fixed shape, therefore we say that two properties of liquids are that it flows and it takes the shape of the container that it is in. Solids, such as buildings and books, can't flow and they have a fixed shape, therefore two properties of solids are that they can't flow and their shape does not change. Two properties of gases are that they can flow and they fill up all the space that is available. Examples of gases are oxygen and carbon dioxide.

All matter around us is in one of three forms: solid, liquid or gas. We call this form the "state" of matter, and matter can change from one state to another. Water can be in a liquid state, but if you freeze it and it becomes a block of ice, then it will be in a solid state. If you heat the block of ice in a pot, then it will melt back into a liquid state. Boiling the water will change it into steam

(also called water vapour), which is a gas. When steam cools down, it forms tiny droplets in the air as it starts changing into a liquid again. If you hold a mirror over the steam from a boiling kettle, you will see water droplets starting to form on the mirror. When water vapour forms drops of liquid, we call it "condensation".

What was it that caused the water to change its state? It was temperature! We removed heat to freeze the liquid into a solid, we added heat to melt it back into a liquid, we added more heat to boil it to become a gas, and we removed heat to make the gas condense back into a liquid.

Not everything is made up of matter, so don't confuse matter and energy. Heat and light are examples of energy which do not take up space and cannot be weighed, so they are not types of matter. Everything that exists can be classed as either a form of matter or a form of energy.

Sources: [www.thunderboltkids.co.za](http://www.thunderboltkids.co.za), [www.factmonster.com](http://www.factmonster.com)

## THE GIANT OF ILLINOIS

Robert Wadlow was the tallest man in medical history, according to the Guinness Book of World Records. When Robert was born in 1918 in Alton, Illinois (which is in the United States of America), his height and weight were normal for a baby. But by the time he was eight years old, he was already taller than his father. As the years passed he continued to grow and, at the age of 21, he was 2,72 metres tall – that's about 50% taller than an average man!

Robert's greatest recorded weight was 222 kilograms. His shoes were 47 centimetres long, which is about one and a half rulers. Each hand measured 32 centimetres from the wrist to the tip of the middle finger. Robert was also very strong and could carry his father – who weighed 77 kilograms – up the stairs of their house at the age of nine.

In 1940, when Robert was 22 years old, he developed a blister on his ankle. Robert had to wear braces on his legs because of his height, and a faulty brace is what irritated his ankle and caused the blister.

The blister became infected and, although doctors treated him with a blood transfusion and emergency surgery, his condition worsened and he eventually died in his sleep.

Robert was famous for being the tallest man in the world, and he was known as The Alton Giant, The Giant of Illinois, and the Gentle Giant. There is a life-size statue of him in his home town of Alton, another one in the Guinness Museum in Niagara Falls, and several others at Ripley's Believe It or Not Museums.

Sources: [www.kidsdiscover.com](http://www.kidsdiscover.com), [www.en.wikipedia.org](http://www.en.wikipedia.org)

# FUN IDIOMS and their meanings!

**Idiom: To have ants in your pants.**

**Meaning:** To be restless or excited about something. Not being able to keep still.

**Idiom: To be caught red-handed.**

**Meaning:** When someone is caught in the act of doing something wrong, like stealing or cheating.

**Idiom: Every cloud has a silver lining.**

**Meaning:** Even when things look bad or hopeless, there is always hope.

**Idiom: To have a yellow streak.**

**Meaning:** A person who is a coward.

**Idiom: To bite off more than you can chew.**

**Meaning:** To take on more than you can manage.

**Idiom: To give the green light.**

**Meaning:** To give permission for something to go ahead or to be done.

**Idiom: Birds of a feather flock together.**

**Meaning:** People with the same tastes, likes, beliefs and interests will often be found together.

**Idiom: To be a black sheep.**

**Meaning:** Someone in a group or in a family who behaves very differently or badly, or is rather odd and unlike the others.

**Idiom: A penny for your thoughts.**

**Meaning:** This is a way to ask someone what they are thinking when they are quiet.

**Idiom: To use your grey matter.**

**Meaning:** Grey matter refers to the soft grey tissue of your brain, so using your grey matter means using your brain.

**Idiom: The best thing since sliced bread.**

**Meaning:** A very good invention. A good idea or plan.

**Idiom: To burn the midnight oil.**

**Meaning:** To work late into the night.

**Idiom: Elvis has left the building.**

**Meaning:** When something is finished or is finally over. The event or show has come to an end.

**Idiom: To happen once in a blue moon.**

**Meaning:** Something that does not happen very often. A rare event.

Sources: [www.learn4good.com](http://www.learn4good.com), [www.learn-english-today.com](http://www.learn-english-today.com), [www.englishclub.com](http://www.englishclub.com)

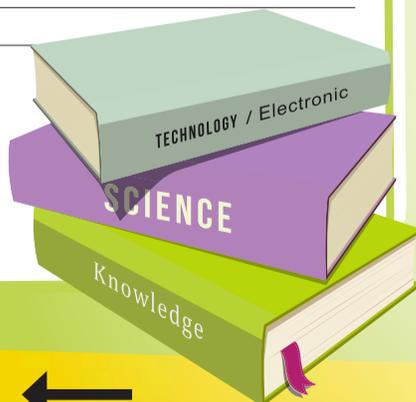
## GENERAL KNOWLEDGE QUIZ

Here are some interesting and fun general knowledge questions for you to try and answer. If you get stumped by any of the questions, then you can find the answers on the right. But a better idea is to go and do some research on the ones you don't know, so that you can improve your general knowledge.

1. What is the largest brass instrument in an orchestra? \_\_\_\_\_
2. Which country does parmesan cheese originally come from? \_\_\_\_\_
3. What is the name of the highest mountain in Africa? \_\_\_\_\_
4. What trees do dates grow on? \_\_\_\_\_
5. Which colours are used for the five Olympic rings? \_\_\_\_\_
6. On a standard computer keyboard, what letter is located between E and T? \_\_\_\_\_
7. Which word in the sentence is an adjective: The friendly dog barked? \_\_\_\_\_
8. Is hot air lighter or heavier than cold air? \_\_\_\_\_
9. How many hours are there in seven days? \_\_\_\_\_
10. Which gas do plants absorb from the atmosphere? \_\_\_\_\_
11. How many strings does a violin have? \_\_\_\_\_
12. How many years are there in a century? \_\_\_\_\_
13. On which continent will you find India? \_\_\_\_\_
14. How many zeros are there in one hundred thousand? \_\_\_\_\_
15. Which continent is the Sahara Desert located on? \_\_\_\_\_
16. Which of the following is not a reptile: turtle, spider, lizard? \_\_\_\_\_
17. What are the six colours in the South African flag? \_\_\_\_\_
18. How many months of the year end with the letter H? \_\_\_\_\_
19. How many millimetres are there in 1 centimetre? \_\_\_\_\_
20. What is the 19<sup>th</sup> letter of the alphabet? \_\_\_\_\_

Source: Knowalot.org

Answers: 1. The tuba, 2. Italy, 3. Mount Kilimanjaro, 4. Palm trees, 5. Red, blue, black, yellow and green, 6. R, 7. Friendly, 8. Lighter, 9. 168, 10. Carbon dioxide, 11. 4, 12. 100, 13. Asia, 14. 5, 15. Africa, 16. Spider, 17. Green, black, white, gold, red and blue, 18. 1 (March), 19. 10, 20. S



## Find the MISSING LETTERS

Z E F G H B J  
V C X K Y  
Q P T L W



Some letters of the alphabet are missing. See if you can work out which letters are missing. Then use the missing letters to make a word describing a kind of animal that became extinct a long time ago.

## POEMS ABOUT SCHOOL LIFE

### GET OUT OF BED

- Diane Z. Shore

#### Mom (yelling):

Get out of bed, you silly fool!  
Get up right now, it's time for school.  
If you don't dress without a fuss,  
I'll throw you naked on the bus!

#### Child:

Oh, Mom, don't make me go today.  
I'm feeling worse than yesterday.  
You don't know what I'm going through.  
I've got a strange, rare case of flu.

My body aches, my throat is sore.  
I'm sure I'm knocking on death's door.  
You can't send me to school - achool! -  
'Cause everyone could get it, too.

Besides, the kids despise me there.  
They always tease and always stare.  
And all the teachers know my name.  
When something's wrong, it's me they blame.

#### Mom (yelling):

You faked a headache yesterday.  
Don't pull that stuff on me today.  
Stop acting like a silly fool -  
The principal cannot skip school!

### MY TEACHER ATE MY HOMEWORK

- Kenn Nesbitt

My teacher ate my homework,  
which I thought was rather odd.  
He sniffed at it and smiled  
with an approving sort of nod.

He took a little nibble -  
it's unusual, but true -  
then had a somewhat larger bite  
and gave a thoughtful chew.

I think he must have liked it,  
for he really went to town.  
He gobbled it with gusto,  
and he wolfed the whole thing down.

He licked off all his fingers,  
gave a burp, and said, "You pass."  
I guess that's how they grade you  
when you're in a cooking class.

# Vuyo and Gemma

## an UNLUCKY break



Vuyo and Gemma have four children – Emma, Petra, Jonah and Michael. They are quadruplets, which means they were all born to their mother at the same time. The quadruplets are in Grade 6 at Mouseville Primary School.

An exciting new Drama teacher, Miss Bosman, joined the school at the beginning of this year. Miss Bosman is very passionate about theatre. She believes it helps children to build their self-confidence and learn to express themselves, so she decided to produce a play in which the Grade 6 learners would participate.

The quadruplets were super-excited and couldn't wait to audition for a part in the play. All four of them auditioned. Miss Bosman chose Jonah for the lead role, while Petra and Emma were given smaller roles. Michael was sad because he didn't get a part in the play, but he was determined not to be miserable. He decided to help his sisters and brother prepare for the play and help them learn their lines. Michael attended all the rehearsals, even though he only watched as the others practised. At home, he

helped Jonah, Petra and Emma go over their lines which they had to memorise. It wasn't long before Michael could repeat almost every line in the play from memory.

After three months of rehearsals, the time came for the Final Dress Rehearsal. This would be the last rehearsal before opening night. Vuyo and Gemma said to Emma, Petra and Jonah: "Break a leg, children!" Now that sounds like a weird thing to say, but it's what you should say to actors to wish them good luck before a performance (you see, actors believe that it's bad luck to say "good luck"). All the performers were excited and nervous.

The final rehearsal started smoothly, but about halfway through, disaster struck! Poor Jonah tripped over a box on the floor and broke his leg. Yes, he literally broke his leg! Miss Bosman quickly called for an ambulance, and Jonah was rushed off to the hospital where his leg was put into a cast so that it could heal properly. What to do now? It was the day before opening night and they had

just lost their lead actor. Miss Bosman was in a state of panic. Would she have to cancel the show after months of hard work? Oh dear, there seemed to be no other choice. Just then, she remembered how Michael had been at all the rehearsals and how he was always helping the others with their lines. Could he possibly take Jonah's part? Maybe, she thought, just maybe.

Michael was worried and sad about Jonah, but when Miss Bosman asked him to take the lead role, he said he would do it. He wanted the show to go on; he wanted to step in because he knew it would make his family happy and proud. But most of all, he wanted to do it for his brother.

All the seats were filled on opening night. The music came up, the audience quietened down, the curtains opened, the lights lit up the stage, and the play began ...

HERE IS A QUESTION FOR YOU, DEAR READER:  
How would you finish this story?

## HOMONYMS AND HOMOPHONES

Homonyms and homophones are both groups of words that share the same pronunciation (they sound the same), but have different meanings. The difference is that homonyms must have the SAME SPELLING, while homophones don't have to have the same spelling – they can have the same spelling OR they can be spelled differently.

Examples of homonyms (note that they all have the same spelling):

- My **arm** is attached to my shoulder. **Arm** yourself for battle.
- The **light** is shining through the window. This box is not heavy, it's very **light**.
- I'm feeling **fine**. There was a **fine** layer of dust on the table.
- What do you **mean**? Freddie is a nasty and **mean** boy.
- **Park** the car in the garage. Let's go and play in the **park**.

The homonyms on the left are also homophones. However, homophones don't have to have the same spelling. Examples of homophones (note that the spelling can be the same or different):

- **Hail** is a form of precipitation. **Hail** to the king!
- A rose is a **flower**. You need **flour** to bake a cake.
- There are **two** birds in the bush. There is **too** much salt in the soup.
- **Change** your clothes when you get home from school. Check your **change** before you leave the shop.
- The teacher **knows** who did it. I wouldn't be able to smell without my **nose**.



# STORY WRITING TIPS FROM AUTHORS

1. Don't just watch TV and play computer games, go out there and do something. Computers and television are important in this world, especially for information. However, they are only a part of life. Your brain processes 300 000 pictures of the world around you every day. These are the building blocks of your life and writing.
2. Read a lot of different things. If something isn't very interesting, remember why.
3. Notice what is going on around you. Notice events, people's faces. Wonder why things happen. See how life works. Try to see the other person's point of view.
4. Write anything. Keep a diary, write notes, write letters, work at strip cartoons, JUST WRITE!
5. Learn to use a keyboard as well as you can.
6. Keep your writing as simple as possible.

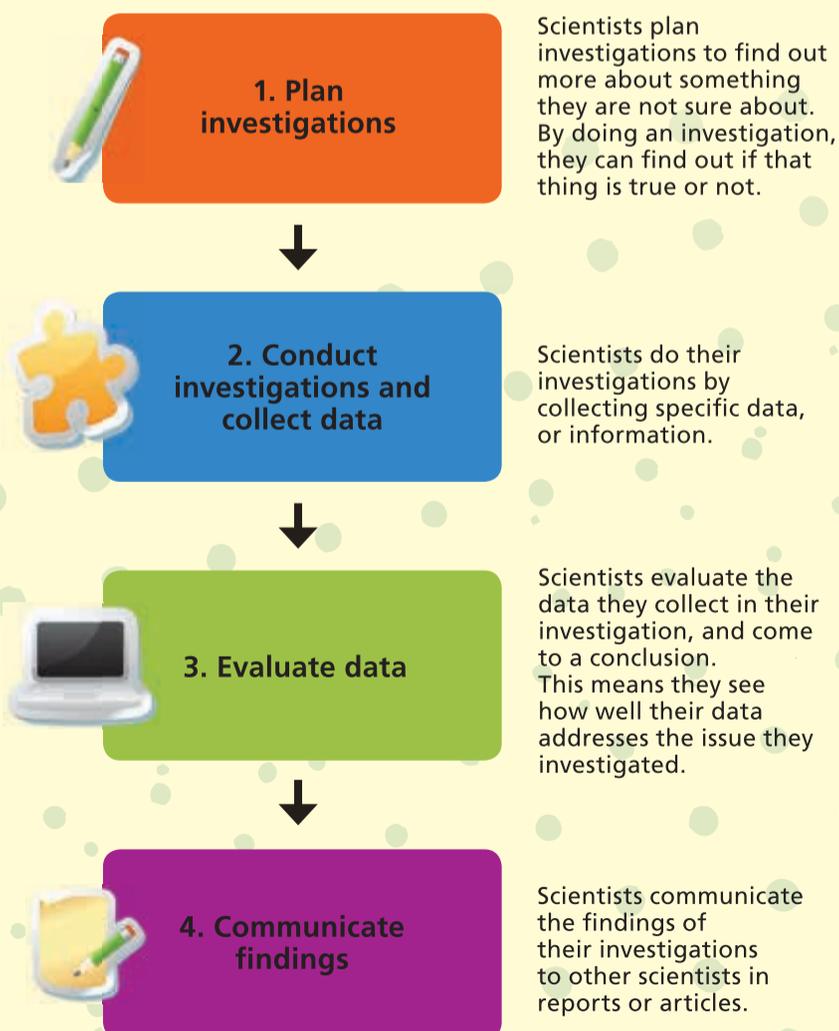
7. See how stories are shaped. See how a good opening drags you in, how a good middle keeps making you wonder what's next by keeping back details and how a good ending gives you most of the answers.
8. See what interests others, not just yourself.
9. Listen to people's voices and how they use words for different effects. See what voices tell you about people no matter what their words are.
10. Ask other people what they think of your writing. They could be wrong, but if several people say the same thing then you need to think about what they are saying.

ADVICE FROM  
DAVID CLAYTON

## THE SCIENTIFIC INVESTIGATION PROCESS



Scientists use the scientific investigation process to find out more about the world around us. The scientific investigation process is a series of steps that scientists follow to do an investigation. Good scientific investigations always use the scientific investigation process.



## THE TECHNOLOGY PROCESS



Technology is how we use the investigations from scientists in our everyday lives. This means that we come up with a process that will help us find out how to improve a certain thing. This is called the technology process.



# The Emperor's ARMY



Emperor Qin Shi Huang, the first emperor of China, wanted to live forever. He spent much of his life searching for immortality and built for himself the largest single tomb in the history of the world. He created an army of statues that would be in the tomb with him and protect him in the afterlife. He died and was buried with his army of statues in 210 BC, more than 2 000 years ago.



The life-size statues are known as the Terracotta Army (terracotta is a type of baked clay), and there are about 8 000 of them! Despite there being so many statues, no two soldiers are exactly alike. There are soldiers of all ages with different facial features, hair styles, clothing and armour. Some of the soldiers look calm, while others look angry and ready to fight. They also hold real weapons such as crossbows, daggers, spears and swords.

Although the tomb is most famous for its rows of soldiers, there were plenty of other statues to accompany the emperor in the afterlife. There were 150 life-size cavalry horses with their saddles, as well as 130 chariots with 520 chariot horses buried with the army. In other areas of the tomb, statues of government officials and even entertainers have been found.

The Terracotta Army was discovered by farmers digging a well in 1974, about a mile from the emperor's tomb.

Source: ducksters.com



## CHALLENGE YOURSELF

Circle the correct words in the sentences below.

## I want my MUMMY!

Have you ever wondered how the ancient Egyptians made mummies? We're going to tell you, very simply, how it was done, but it's a bit creepy and we don't recommend that you try it at home!

First they washed the dead body in wine and Nile water. Then they made a cut in the side and took out the organs. To get to the brain, they shoved a hook up the nose, jiggled it, pulled out the brain and threw it away.

They cleaned the liver, lungs, intestines and stomach, then popped them into four special jars with lids that looked like the gods that guarded them. The heart had to be put back in the body, though, as it was believed to be the centre of intelligence.

They then used a special Egyptian salt called "natron" to fill up the cavities and cover the body. This was necessary to get rid of all the moisture while they left the body for about 40 days to dry out completely. After this they scooped out the natron and stuffed the body with spices, rags and vegetation so that it didn't lose its shape.

Finally, they wrapped the body in fine linen bandages and tucked in some lucky amulets which they believed had magical protective powers. When the wrapping was done, they placed the mummy in a coffin, which they placed inside another coffin, and then another coffin. They then placed the whole lot inside a tomb.

Source: ngkids.co.za



## THE KING OF THE JUNGLE

The lion gets its name from the Latin word, leo. Lions are very social compared to other cats, such as leopards, tigers and jaguars. They usually live in a group of about eight adult lions (and sometimes much more), and such a group is called a pride. A pride of lions consists of related females and their offspring, as well as a small number of adult males.

Lions spend most of the day resting. Although they can be active at any time, they are usually more active at night when most of their hunting takes place. The female lion, called a lioness, does most of the hunting for the pride. The females are smaller than the males and they usually hunt together in groups.

Lions are predators, which means they hunt and eat their prey. Their prey consists mainly of medium-sized animals, such as wildebeest, buffalo, zebras and warthogs. But they are also scavengers. A scavenger is an animal that eats animals that have already died of natural causes or have been killed by other predators.

Lions are not known for their stamina and can only run fast in short bursts, so they need to be close to their prey before they attack. They usually sneak up to their prey until they are about 30 metres away.

While lions do not usually hunt people, some (usually males) seem to seek out human prey. An example is the true story of the "Tsavo man-eaters", where 28 railway workers were taken by lions over nine months while building a bridge over the Tsavo River in Kenya in 1898.

The African Lion can weigh more than 250 kilograms and is the second-largest living cat after the tiger. In the wild, male lions seldom live longer than 10 to 14 years, mainly due to injuries sustained from fighting with rival males. In captivity they can live more than 20 years.

### Answer the following questions:

- How do lions spend most of the day? .....
- What do you call a group of lions? .....
- What is a scavenger? .....
- What is a predator? .....



- I swim / swims well.
- You swim / swims well.
- We swim / swims well.
- They swim / swims well.
- He swim / swims well.
- She swim / swims well.
- It swim / swims well.

- I read / reads books.
- You read / reads books.
- We read / reads books.
- They read / reads books.
- He read / reads books.
- She read / reads books.
- It read / reads books.

- I am / are / is playing the piano now.
- You am / are / is playing the piano now.
- We am / are / is playing the piano now.
- They am / are / is playing the piano now.
- He am / are / is playing the piano now.
- She am / are / is playing the piano now.
- It am / are / is playing the piano now.

- I have / has visited Namibia.
- You have / has visited Namibia.
- We have / has visited Namibia.
- They have / has visited Namibia.
- He have / has visited Namibia.
- She have / has visited Namibia.
- It have / has visited Namibia.

## Can you tell what is wrong with the following sentences?

- I are very happy.
- Candy taste sweet.
- I gonna get a new cat.
- She like dogs.
- My head hurt.
- I goes to the shop every day.
- My teeth is white.
- My dog have fleas.
- I have too cats and three dogs.
- Your good at mathematics.
- Wear is my shirt?

# ★ WHAT DO THESE WORDS MEAN?



abrupt  
accomplice  
accumulate  
accusation  
acquire  
adhesive  
adolescent  
airport  
alienate  
amateur  
ambivalent  
amusement  
antarctic  
apartheid  
applaud  
appliance  
aquarium  
architecture  
artificial  
assault  
assembly  
assortment  
astonish  
athlete  
authentic  
barbaric  
barometer  
beverage  
blunder  
boisterous  
luggage  
miracle  
misconduct  
neighbour  
nonsense  
numerous  
obstacle  
occasion  
orchestra  
orphanage

boundary  
boycott  
bridesmaid  
cafeteria  
carnivorous  
catapult  
catastrophe  
caution  
colleague  
confession  
confiscate  
consent  
consequence  
consistently  
consumer  
corridor  
courage  
cucumber  
culprit  
cyclist  
cyclone  
deforestation  
dehydration  
destination  
dinosaur  
distinguish  
emancipation  
embarrass  
encourage  
enhance  
parasite  
pedestrian  
pessimist  
predictable  
previous  
pseudonym  
puncture  
purchase  
pursuit  
outrageous

entrance  
entrepreneur  
escalate  
eternity  
exceptional  
favourite  
ferocious  
foreigner  
foresight  
fracture  
fragrance  
fugitive  
genuine  
gorgeous  
graffiti  
helicopter  
hesitate  
hibernate  
horrendous  
impeccable  
impressive  
inaudible  
incapable  
incident  
incredible  
inferior  
insecticide  
interior  
invincible  
journalist  
pyramid  
recycle  
resurrect  
retrieve  
sausage  
stethoscope  
stretcher  
theatre  
ultimate  
whistle

# TEST YOUR GENERAL *knowledge!*

## TRUE or FALSE:

- Sharks are mammals.
- Mars is the closest planet to the Sun.
- Mount Kilimanjaro is the tallest mountain in the world.
- Carnivores eat meat.
- 7 am is 7 o'clock in the morning.
- The white of an egg is known as the yolk.
- In a leap year, February has 29 days.
- Peter Pan can fly.
- A cube has 8 sides.
- The Sun sets in the east.


## Choose the correct answer:

- What does the word dinosaur mean?  
A) Dinner for two B) Terrible lizard
- Which vowel is missing: A, E, O, U.  
A) I B) D C) Z
- Which religious leader lives at the Vatican?  
A) The Dalai Lama B) Saint Thomas C) The Pope
- Where will you find the Great Pyramid of Giza?  
A) India B) Australia C) Egypt
- How many letters are there in the English alphabet?  
A) 25 B) 26 C) 27
- Where will you find the Eiffel Tower?  
A) Paris B) London C) New York
- The famous artist, Vincent van Gogh, cut off which part of his body?  
A) Big toe B) Nose C) Ear
- The imaginary line dividing the northern and southern hemispheres of the earth is known as?  
A) The terminator B) The radiator C) The equator
- What do astronomers study?  
A) Stars and planets B) Plants C) Oceans
- How many years are there in a decade?  
A) 10 B) 100 C) 1 000

ANSWERS:  
1. False - fish, 2. False - Mercury, 3. False - Mount Everest, 4. True, 5. True, 6. False - egg white or albumen, 7. True, 8. True, 9. False - 6, 10. False - West



Sources: www.en.wikipedia.org, www.trueorfalsequestions.org

ANSWERS:  
1. B, 2. A, 3. C, 4. C, 5. B, 6. A, 7. C, 8. C, 9. A, 10. A

# WORD SEARCH

R	A	E	L	A	H	W	S	Q	O	O	S	E	R	D
O	D	U	N	I	A	R	B	E	W	T	K	B	A	R
O	U	S	T	I	N	G	R	A	Y	E	E	L	N	E
H	C	E	N	I	P	S	K	E	L	E	T	O	N	A
R	A	T	A	W	E	H	N	P	K	T	E	O	T	E
E	R	I	S	A	R	D	I	N	E	H	L	D	U	D
D	R	E	R	Q	I	Y	E	G	N	U	L	U	N	O
L	A	V	O	K	U	E	D	J	O	C	O	R	A	L
U	B	A	R	C	A	I	N	P	O	R	P	S	I	P
O	T	A	M	R	Q	A	D	Z	E	S	E	V	L	H
H	H	I	L	E	N	M	U	S	C	L	E	E	S	I
S	U	P	O	T	C	O	H	E	A	R	T	H	E	N

Find the following words hidden in the squares. The words may be found left to right, back to front, upside down or even diagonally across.

## UNDER THE SEA

Octopus	.....	Coral	.....	Tuna
Shark	.....	Squid	.....	Kelp
Dolphin	.....	Whale	.....	Stingray
Crab	.....	Sardine	.....	Barracuda

## HUMAN BODY

Muscle	.....	Knee	.....	Brain
Liver	.....	Spine	.....	Lung
Heart	.....	Teeth	.....	Skeleton
Shoulder	.....	Blood	.....	Hair
Kidney	.....			

# WHAT IS A DESERT?

If you think a desert is a hot and dry place, then you are only half right. It's dry, but it doesn't have to be hot. A desert is a barren area of land that receives very little precipitation, such as rain or snow. A desert can be hot or cold, as long as there is very little water because of the lack of precipitation. It's a dry place where it's not easy for plants and animals to flourish. The word desert comes from the Latin word desertum, which means "an abandoned place".

Deserts can be hot and sandy or rocky, such as the Sahara Desert or the Kalahari Desert. They can also be cold or even covered in ice, such as in the Arctic and Antarctic – these are called cold deserts or polar deserts. Hot deserts usually have high temperatures in the daytime and cold temperatures at night. Deserts play an important part in controlling the Earth's temperature, because they reflect more of the incoming light than the forests or the sea.

The largest hot desert in the world is the Sahara, which is 9 million square kilometres. The hottest place on Earth is Death Valley, which is in the Mojave Desert in California. The highest temperature on Earth was recorded there: 56.7 degrees Celsius. The largest polar desert is Antarctica, at 13 million square

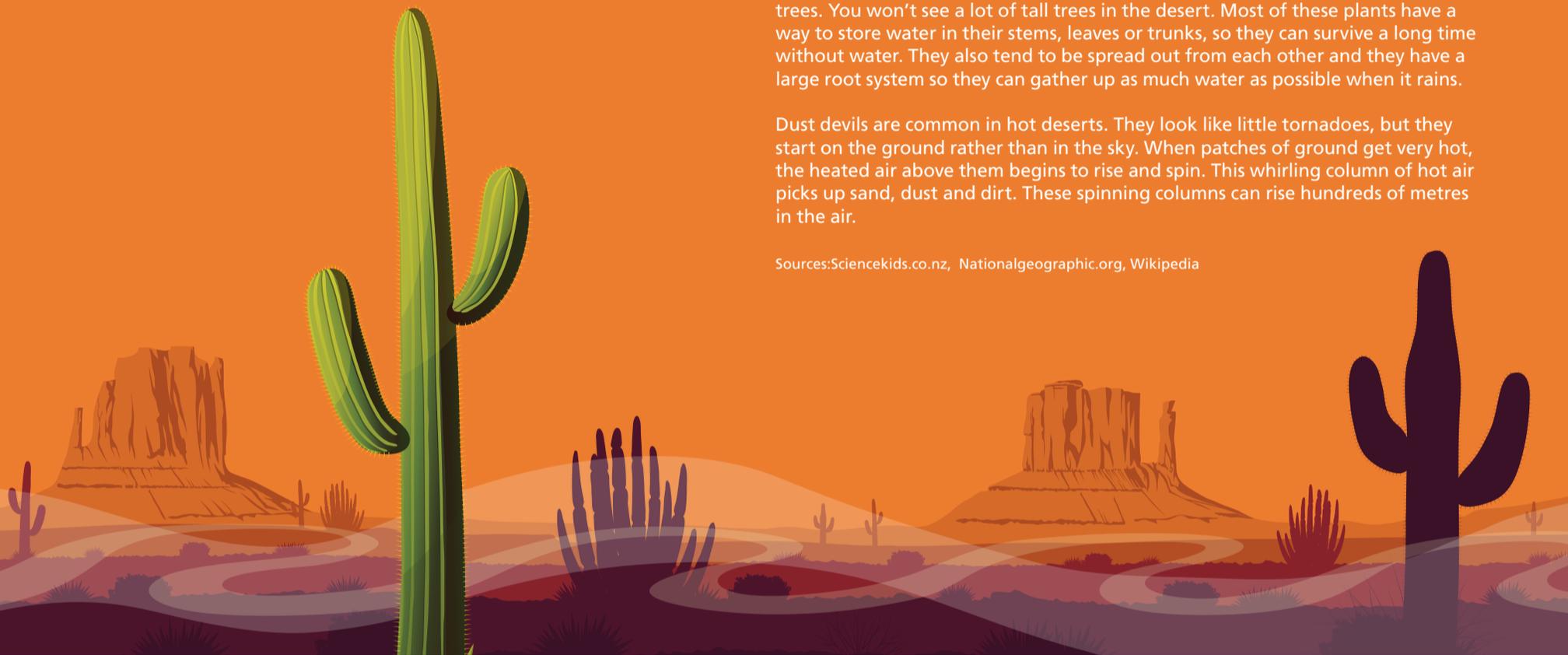
kilometres. Antarctica boasts the lowest natural temperature recorded on Earth: -89.2 degrees Celsius.

Deserts are formed by weathering processes. Large differences in temperature between day and night can put strain on the rocks, which eventually break into pieces. Although rain seldom occurs in deserts, there are sometimes downpours that can result in flash floods. Rain falling on hot rocks can cause them to shatter and the fragments are further eroded by the wind. Temporary lakes may form and salt pans may be left when the water evaporates. An oasis is a place in a desert where there is underground water which reaches the surface. Vegetation will grow around an oasis, and it provides a source of water and shelter for animals and humans.

There are many different kinds of animals that live in the desert. Most of these animals are nocturnal, which means they sleep during the day when the temperature is the hottest, and they hunt at night when the desert cools down. Only certain types of plants can survive the harsh environment of the desert. These include cacti (which is plural for cactus), grasses, shrubs and some short trees. You won't see a lot of tall trees in the desert. Most of these plants have a way to store water in their stems, leaves or trunks, so they can survive a long time without water. They also tend to be spread out from each other and they have a large root system so they can gather up as much water as possible when it rains.

Dust devils are common in hot deserts. They look like little tornadoes, but they start on the ground rather than in the sky. When patches of ground get very hot, the heated air above them begins to rise and spin. This whirling column of hot air picks up sand, dust and dirt. These spinning columns can rise hundreds of metres in the air.

Sources: Sciencekids.co.nz, Nationalgeographic.org, Wikipedia



## WHAT IS THE GREENHOUSE EFFECT?

Scientists have warned that the world's climate has changed and has affected many living and non-living things. Some people do not believe that climate change is caused by human activities, while others do.

### WHAT IS CLIMATE?

Climate is the average weather conditions of a whole region over a period of time. It tells us what the weather is usually like in the place where you live. For example, some countries like Cameroon, Ghana and Liberia are all in the tropical wet region of Africa. They have a very sunny, hot and wet climate throughout the year. Climate is the general pattern of weather conditions over time.

### WHAT IS WEATHER?

Weather describes what is happening outdoors at any particular time, and it can change a lot in a very short time. For example, it can be windy at night, rainy in the morning, hot and sunny at midday, and even back to windy before sunset. It includes daily changes in rainfall, temperature and wind in a region. Weather is local and temporary.

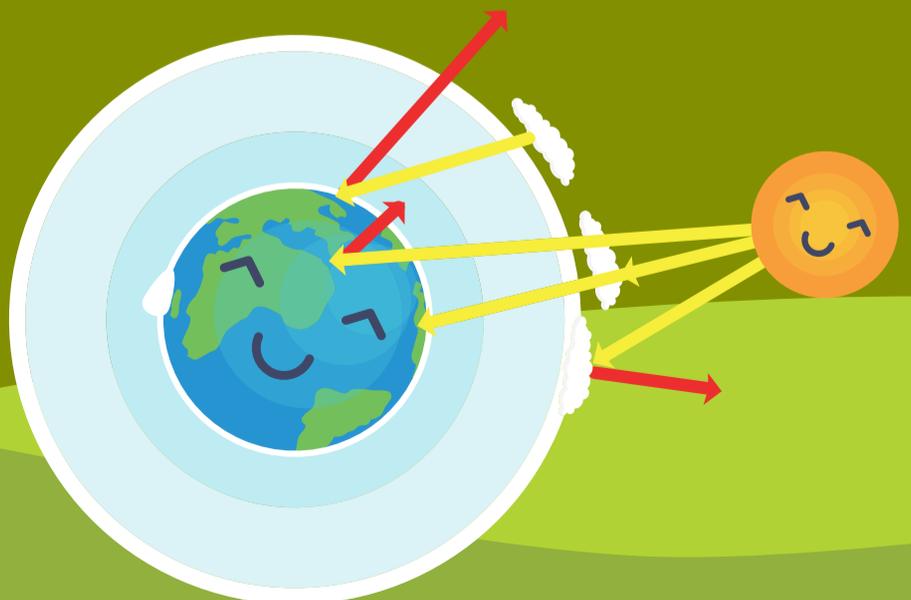
### What is the greenhouse effect?

Land, oceans and plants absorb energy from sunlight. Certain gases in the air absorb and trap the heat in the atmosphere, and these gases are called greenhouse gases. Without greenhouse gases, this heat would escape back into space and Earth would be too cold for life to exist. The most common greenhouse gases are water vapour, carbon dioxide and methane.

### What is climate change?

Climate change refers to general changes in climate patterns, including temperature, precipitation, wind and other factors. Scientists believe that human activities are increasing the greenhouse effect. When people drive a car or operate a factory, they burn coal, oil and other fossil fuels. This adds extra greenhouse gases to the air, and the extra gases trap more heat. Many scientists believe that this has led to a steady rise in the average temperature of Earth's surface, which they call global warming.

Sources: Climatekids.nasa.gov, Ducksters.com



# WHAT IS ENERGY ?

The word 'energy' comes from the ancient Greek word 'energeia'. To have energy is to have the ability to do work. It is how things change and move. Energy is all around us and takes many forms, such as the energy in the food we eat that gives us the energy to walk, run, jump and even think. When you don't have energy, you would be like a battery that has used up all its power. Energy can be changed into another type of energy, but it can never be created or destroyed. Energy is mostly measured in joules, but there are also other units of measure, such as calories.

Almost all types of energy are either "potential energy" or "kinetic energy". Potential energy is energy that can be stored, such as the energy in the rubber band when you stretch it or when you press a spring all the way down – this is energy that's ready to be released. Kinetic energy is found in anything that is moving, such as a ball that has been thrown or a car that is moving.

Chemical energy comes from atoms and molecules when they interact. Electrical energy is generated by the movement of electrons, which are tiny particles found in atoms. Gravitational energy is when large objects like the sun or the earth create a "pull" which draws other objects towards them (this is known as gravity).

Heat energy is generated when molecules of different temperatures interact. This is also known as thermal energy. Light is also called solar or radiant energy – our planet gets a lot of energy from the sun. Nuclear energy is created by splitting atoms.

The energy we use can be either renewable energy (also called sustainable energy) or non-renewable energy. A renewable or sustainable energy source can be used without harming the earth or using up its natural resources. It can be renewed or replenished. Examples are solar power from the sun and wind power from the wind.

Non-renewable energy comes from the earth's natural resources which cannot be renewed or replenished. Examples include oil, coal, natural gas and nuclear power. The more renewable energy we use, the better for our planet and for future generations so that they won't run out of resources someday.

Sources: Ducksters.com, Scienceforkidsclub.com



# What are CLOUDS ?

A cloud is made of water – millions of tiny water droplets. Clouds are formed when water on the surface of the earth evaporates and the liquid water becomes a gas (called water vapour). This moist, warm air rises because warm air is lighter than cold air. Eventually the warm air begins to cool down and the molecules in the water vapour then condense (start joining together again), forming tiny water droplets. The result is a cloud. The cloud floats because it is warmer than the cold air beneath it. Some clouds are thicker than others because they have more water droplets.

Clouds are an important part of the Water Cycle, in which water continually moves between the surface of the earth and the atmosphere. Water changes from liquid to gas to liquid, and sometimes to solid as well, such as ice. There are many different types of clouds, based on what they look like and how high up they are in the atmosphere.

## Cirrus clouds

These are very high level clouds and are made up of ice crystals because the air up there is so cold. They are thin and stringy, and are blown by high winds. Cirrus clouds are almost always the highest clouds in the sky.

## Cumulus clouds

Cumulus clouds are known as vertical clouds. They are the big puffy clouds that look like cotton wool. These clouds are usually seen on a warm summer day and could be a sign that thunderstorms are on the way. Cumulus clouds have a flat base and are rounded on top, but if the top of the cloud continues to grow or climb, they can turn into storm clouds. This happens when they grow tall enough for the winds to flatten their tops. When that happens, the cumulus clouds become cumulonimbus clouds. A cumulonimbus cloud usually means a storm is coming.

## Stratus clouds

These are flat and look like big white sheets of paper floating through the sky. They are low-lying clouds that are gray and usually cover most of the sky and can be the result of fog lifting in the morning. Nimbostratus clouds are dark gray and usually produce rain or snow.

## Alto clouds

Alto clouds are called mid-level clouds; they are lower in the atmosphere than cirrus clouds, but higher than cumulus or stratus clouds. Altostratus clouds look like stratus clouds, but are higher. Altocumulus clouds are puffy and gray like cumulus clouds, but are not as vertical.

Sources: Superteacherworksheets.com, Scienceforkidsclub.com

# PROFESSOR THANDI'S FUN SCIENCE EXPERIMENTS



## FAST-GROWING CRYSTALS!

The great thing about this experiment is that you don't have to wait days and days to grow crystals – you can grow them overnight by using Epsom salt. Your crystals will be small and delicate; some will look like shards of glass and others may even look like snowflakes. Make three or four crystal gardens at a time, just in case one or two of them don't grow.

YOU WILL  
NEED



- Epsom salt
- Clean glass jars or cups (one for each crystal garden)
- Water
- Food colouring (if you want to add colour to your crystals)
- A fork

## Instructions

1. Pour half a cup of Epsom salt in a jar.
2. Add half a cup of hot water.
3. Stir with a fork for about one minute to dissolve the salt.  
**Note:** you must use the same amount of water as the amount of Epsom salt.
4. Add a couple of drops of food colouring.
5. Put the jar or cup in the fridge and check on it in the morning.

## Tips

- Some people recommend dropping a grain of sand in the jar, because crystals need something to grow on and one little impurity in the water, like a grain of sand, should help.
- Any crystals that have formed will deteriorate in the water at room temperature. If you want to preserve them, you will need to pour out the water.

## Results

Your crystals should form within a few hours. If it doesn't work the first time, try the experiment again. Pour out the remaining solution to have a closer look at your crystals. Epsom salt is another name for a chemical called magnesium sulphate. The temperature of the water determines how much magnesium sulphate it can hold – it will dissolve more when the water is hotter (but not too hot). Cooling the solution quickly in the fridge encourages fast crystal growth, since there is less room for the dissolved salt in the cooler, denser solution. As the solution cools, the magnesium sulphate atoms run into each other and join together in a crystal structure. Crystals grown this way will be small, thin, and numerous. If you pour out the remaining solution and leave the crystals undisturbed, they should last for months. **Sources:** [hometrainingtools.com](http://hometrainingtools.com) / [babbledabbledo.com](http://babbledabbledo.com)

## CLIMATE AND WEATHER

What is the difference between climate and weather? Climate is the average weather conditions of a specific place. It tells us what the weather is usually like in the place where you live.

Weather describes what is happening outdoors at a particular moment, and it can change a lot in a very short time. For example, it can be windy at night, rainy in the morning, hot and sunny at midday, and even back to windy before sunset.

The earth has some very important gases in the atmosphere, such as water vapour, carbon dioxide, nitrous oxide and methane – we call them "greenhouse gases".

When sunlight enters the atmosphere, it passes through the blanket of greenhouse gases. The earth's surface absorbs the sunlight's energy and sends it back into the atmosphere.

Some of this energy passes back into space, but a lot of it remains trapped in the atmosphere by the greenhouse gases, causing the earth to warm up. Without this greenhouse effect, the earth would not be warm enough for humans to survive. But if the greenhouse effect becomes stronger, it could make our planet warmer than usual – we call this "global warming". Even a little extra warming of the earth may cause problems for humans, plants and animals.

Scientists have warned that the world's climate has changed and has affected many living and non-living things. Many places that were warmer are now getting colder, and many colder regions are getting much colder or even warmer. Some people do not believe that these are caused by human activities, while others do.

**Sources:** [Explainthatstuff.com](http://Explainthatstuff.com) | [Eschooltoday.com](http://Eschooltoday.com)

