GROW SMART

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Second Edition 2016

DEAR GROWSMARTER

Welcome to our second edition of the Growsmart newspaper for 2016! We're halfway through the year already, and we hope you've been working hard and doing well at school. Remember that if you don't understand something, then ask your teacher to explain it again.

This newspaper is full of interesting stuff to read and learn (like the article on cyberbullying), and you can test yourself with the general knowledge quiz, the maths problems and the word search puzzle. But the most important thing is to read everything, because the best way to improve your literacy skills is to read as much as you can. Look for the list of words in the newspaper and take some time each day to learn some new words. If you don't know what any of the words mean, then look it up in the dictionary.

Remember that you are special in your own way. And so is every other boy and girl in your class. We may not all look the same or speak in the same way, but that's what makes each of us unique. Respect yourself and take care of yourself. And be sure to respect others, too.

Until next time,
The Growsmart team.

TEST YOURSELF:

MATHS 1

Calculate the following.
You may use any strategy.

1. 250 + 750 + 999 = _____

2. 40 000 ÷ 2 + 20 000 = _____

3. 39 999 x 1 + 2 = _____

4. 23 550 x 1 000 x 10 = _____

5. 625 ÷ 25 x 2 = _____

6. 1 833 + 670 x 100 = _____

7. 15 200 + (1 800 – 1 200) = _____

8. 5 200 x 40 ÷ 4 = _____

9. 36 144 ÷ 12 + 2 599 = _____

10. (23 000 – 230) ÷ 2 + 3 458 = _____

ANSWERS:
1. 1 999, **2.** 40 000, **3.** 40 001, **4.** 235 500 000, **5.** 50, **6.** 68 833, **7.** 15 800, **8.** 52 000, **9.** 5 611, **10.** 14 843

MATHS 2

Problem solving.

You have 1 minute to solve the problem. You will need to be able to explain your answer mathematically.

1 **Find the 6th number in the sequence 8; 16; 32; 64;...**

(A) 128 (B) 258 (C) 256 (D) 126 (E) 136

2 **Which is the closest fraction to 0.4 from the choices below?**

(A) $\frac{3}{4}$ (B) $\frac{1}{2}$ (C) $\frac{4}{6}$ (D) $\frac{1}{3}$ (E) $\frac{2}{5}$

MATHS 3

Answer as many as possible. Do not pause if you do not know the answer immediately.

1.	9 + 11 =	**10.**	45 x 0 =	**19.**	17 x 20 =	**35.**	13 + 12 + 15 =
2.	16 + 16 =	**11.**	90 + ☐ = 100	**20.**	90 x 2 =	**36.**	177 = 147 +
3.	25 – 6 =	**12.**	999 + 2 – 2 =	**21.**	15 x 40 =	**37.**	44 = 14 +
4.	25 + 15 =	**13.**	300 x 3 =	**22.**	100 x 10 =	**38.**	91 – ☐ = 10
5.	124 – 5 =	**14.**	2 500 x 2 =	**23.**	44 ÷ 4 =	**39.**	13 = 113 –
6.	11 + 10 – 1 =	**15.**	144 – 0 =	**24.**	150 x 2 =	**40.**	15 – 3 – 12 =
7.	27 + 3 – 30 =	**16.**	36 ÷ 4 =	**25.**	33 x 3 =	**41.**	75 x 4 =
8.	30 x 3 =	**17.**	13 x 30 =	**26.**	280 ÷ ☐ = 140	**42.**	150 x 20 =
9.	100 ÷ 20 =	**18.**	100 ÷ 5 =	**27.**	630 ÷ ☐ = 70	**43.**	150 x 30 =
				28.	500 ÷ 2 =	**44.**	69 x 0 =
				29.	1 000 ÷ 2 =		
				30.	1 200 + 1 200 =		
				31.	$\frac{1}{2} + \frac{1}{2}$ =		
				32.	103 – 3 =		
				33.	$\frac{5}{8} + \frac{4}{8}$ =		
				34.	7 + 113 =		

ANSWERS:
1. 20, **2.** 32, **3.** 19, **4.** 40, **5.** 119, **6.** 5, **10.** 0, **11.** 10, **12.** 999, **13.** 900, **16.** 9, **17.** 390, **18.** 20, **19.** 340, **20.** 1 000, **23.** 11, **24.** 300, **25.** 99, **26.** **29.** 500, **30.** 2 400, **31.** 1, **32.** 100, **34.** 120, **35.** 40, **36.** 30, **37.** 30, **38.** **41.** 300, **42.** 3 000, **43.** 4 500, **44.** 0

3 A club has 93 members. If $\frac{2}{3}$ of the club are girls, how many boys are in the club?

(A) $\frac{1}{4}$ (B) $\frac{1}{3}$ (C) 31 (D) 186 (E) 62

4 A fence is constructed around a square garden with a length of 20 m on one side. How many fencing posts are required if there has to be a fencing post every 2 m?

5 Which two-digit number less than 23 is four times the sum of its digits?

6 The sum of two numbers is 20. What is the largest product you can make using these two numbers?

7 Four children add their ages together and get a sum of 57. What was the sum of their ages 4 years ago?

8 An animal farm only has chickens and sheep. In total there are 30 animals and 78 legs. How many chickens are on the farm? (All the animals have the right number of legs.)

9 If the pattern in the table continued, what number should replace the Q?

1	2	3	4	5	6
1	4	9	16	25	Q

10 What fraction of the figure below is not shaded in?

11 0,8 kg tomatoes cost R8,60. How much will 0,2 kg cost?

12 A watercan takes $3\frac{1}{2}$ litres of water. There is $2\frac{3}{4}$ litres of water in the can. How much water can be added?

13 A kilogram of mutton costs R79,99. How much does 2,5 kg mutton cost?

ANSWERS:
1. C, **2.** E, **3.** C, **4.** 36 **5.** 12 **6.** 100 **7.** 41 **8.** 21 **9.** 36 **10.** $\frac{10}{33}$ **11.** R2,15 **12.** $\frac{3}{4}$ **13.** R199,98

Leonardo, Michelangelo, Donatello and Raphael

THE TEENAGE MUTANT NINJA TURTLES?

not!

The Teenage Mutant Ninja Turtles in films and television are all named after famous Italian Renaissance artists: Leonardo da Vinci, Michelangelo, Donatello and Raphael. The Renaissance (meaning "rebirth") was a period from the 14th to the 17th century in Europe. It was a time that produced an explosion of ideas, education and literacy, and it produced some of the greatest artwork and artists in history. Famous Renaissance paintings hang in museums all over the world.

The term "Renaissance Man" refers to a person who is talented in many things. One of them was Leonardo da Vinci. Leonardo was a painter, sculptor, scientist, inventor, architect, engineer and writer. Two of his most famous paintings are the Mona Lisa and The Last Supper. Leonardo recorded his studies of the human body, science and art in over 13 000 pages of notes and drawings!

Michelangelo was a superb painter, sculptor, poet and architect. Two of his best known sculptures are the Pieta and David (from the biblical story of David and Goliath), both of which he created before the age of thirty. He also painted the ceiling of the Sistine Chapel in Rome for the Roman Catholic Church, which took him four years to complete and required him to work in awkward positions such as lying on his back. The painting includes scenes from the Bible and features about three hundred figures. One of his most famous quotes is: "Every block of stone has a statue inside it, and it is the task of the sculptor to discover it."

Raphael was a painter and architect who studied the works of Leonardo and Michelangelo, but he maintained his own unique style. He was most famous for his fresco (a fresco is a wall painting or mural), named The School of Athens, painted on the wall of a library in the Vatican City in Rome, Italy. The painting features some of the great philosophers of ancient Greece, such as Plato, Socrates, Aristotle and Pythagoras.

Donatello was one of the earliest sculptors during the Renaissance period. He produced sculptures in stone, bronze, wood and wax. Like Michelangelo, Donatello also sculpted a statue of David.

Sources:
www.online.kidsdiscover.com
www.en.wikipedia.org

test your general knowledge!

Sources: www.en.wikipedia.org. www.sciencekids.co.nz, www.knowalot.org

1. What is the fastest land animal in the world?
   A) Tortoise B) Cheetah C) Horse
2. Which month has an extra day in a Leap Year?
   A) February B) December C) April
3. What is a tsunami?
   A) A large wave B) An earthquake C) Chinese food
4. How many legs does a spider have?
   A) 4 B) 6 C) 8
5. How many official languages do we have in South Africa?
   A) 10 B) 11 C) 12
6. How many lungs are there in the human body?
   A) 2 B) 3 C) 4
7. The South African flag contains six colours. The flag's colours are red, blue, yellow, green, black and … ?
   A) White B) Orange C) Pink
8. What is the chemical formula for water?
   A) CO_2 B) H_2O C) O_2
9. Which river is the longest in Africa?
   A) Nile B) Congo C) Orange
10. Which planet is the largest in our solar system?
    A) Earth B) Saturn C) Jupiter

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

IDIOMS

Fill in the missing word to complete the following idioms:

Actions speak louder than _____
Barking up the wrong _____
Crying over spilt _____
Putting all your eggs in one _____
Every cloud has a silver _____
Counting your chickens before they _____
Curiosity killed the _____
Judging a book by its _____
It's raining cats and _____
Biting off more than you can _____

ANSWERS: 1. Words, 2. Tree, 3. Milk, 4. Basket, 5. Lining, 6. Hatch, 7. Cat, 8. Cover, 9. Dogs, 10. Chew

NOUNS, VERBS & ADJECTIVES

NOUNS

A noun is a naming word that tells you "who" or "what". It names a person, a place or a thing. Circle three nouns in each of the following sentences:

1. My brother put money on the table.
2. The story is about a dragon in a castle.
3. The farmer led the cow to the field.
4. The man wearing the hat is a detective.
5. The child ate a sandwich in the classroom.

VERBS

Verbs are doing words. They are words that express an action. Circle the verb in each of the following sentences:

1. Priscilla laughs a lot.
2. These old wooden floors creak.
3. The boy blinked his eyes.
4. Paul peeled the orange.
5. Our teacher always reminds us about our homework.

ADJECTIVES

Adjectives are describing words. They are words that are used to describe or give more information about a noun. Read this sentence: "I saw trees." You will notice that there are no adjectives to describe the trees. By adding adjectives, we can bring the image of the trees to life: "I saw tall, brown trees with thick, bushy, green leaves." Now circle the adjective in each of the following sentences:

1. Peter picked several tomatoes.
2. I saw a large elephant in the forest.
3. Shirley wore a blue jersey today.
4. Follow that stolen car!
5. The boy caught a small fish in his net.

Source: lxl.com

What do these WORDS mean?

acronym
advance
ailment
allergy
amnesia
anxious
auction
aviator
balcony
bashful
boulder
breathe
chimney
coconut
collide
combine
curious
descend
fiction
glimpse
glutton
inferno
lantern
leopard
lullaby
massive
ostrich
perfume
predict
rectify
synonym
vinegar
volcano

wealthy
whisper
abnormal
abruptly
accurate
adequate
adjacent
adorable
cheerful
clarinet
confetti
criminal
disguise
elevator
exterior
farewell
frequent
generous
heptagon
inedible
infinite
intruder
luminous
metaphor
ointment
omnivore
optional
peculiar
probable
skeleton
suitable
twilight
vertical

ambulance
amphibian
asparagus
astronaut
autograph
beautiful
brilliant
celebrity
crocodile
delicious
eliminate
emergency
forbidden
hazardous
hilarious
hurricane
identical
imaginary
invisible
parachute
pollution
regularly
reluctant
scarecrow
serviette
spaghetti
tarantula
telescope
temporary
turquoise
volunteer
xylophone
achievable

additional
anticipate
attractive
bridegroom
chimpanzee
continuous
contagious
disappoint
illuminate
immaculate
infrequent
locomotive
mayonnaise
mysterious
optimistic
pedestrian
previously
restaurant
rhinoceros
silhouette
sufficient
tournament
trampoline
typewriter
unemployed
vegetation
victorious
cauliflower
evaporation
indigestion
magnificent
photocopier
temperature

WORD SEARCH

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.

FRUIT

Orange
Lemon
Raspberry
Pineapple
Guava
Melon
Grapefruit
Fig
Lime
Grape
Apricot
Peach
Plum

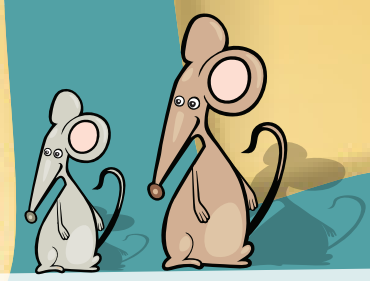
VEGETABLES

Cabbage
Lettuce
Spinach
Asparagus
Celery
Onion
Beetroot
Carrot
Potato
Turnip
Leek
Broccoli
Lentil

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

A Vuyo and Gemma tale

The CHEESEWORLD CARNIVAL comes to town!



Vuyo and Gemma decided to surprise their quadruplets with a visit to the famous Cheeseworld Carnival. This was the first time that the carnival was coming to Mouseville and everybody was immensely excited!

The first thing the mouse family saw when they arrived at the carnival was a huge tent about the size of a football field. It had red, white and blue stripes and the top of the tent was higher than the tallest tree in Mouseville. All around the tent were kiosks selling delicious food and stalls where you could play fun games to win prizes. The air was filled with the aroma of food and carnival music and the screams of excited mice as they rode the roller coasters and other carnival rides.

The quadruplets ran to the queue to buy their entrance tickets. Vuyo and Gemma knew that the visit to the carnival was going to be expensive, so they had saved R500,00 for the trip. The price of the entrance tickets was R70,00 each and Vuyo bought six tickets (one each for himself and Gemma, and four for the quadruplets).

With their tickets in hand, they stopped at the first food kiosk and bought popcorn and candy floss. Vuyo and Gemma decided to share a box of popcorn, but each of the quadruplets wanted their own popcorn and candy floss. The popcorn was R5,00 a box and the candy floss was R3,50 a bag. The family bought five boxes of popcorn and four bags of candy floss.

The family then entered the big tent. It was a circus! Bright coloured lights shone down on the circus ring in front of them and merry circus music blared from the loudspeakers.

There were rows and rows of seats around the ring and the mouse family had just found some empty seats when a brightly dressed clown with a white-painted face, bright purple hair, a huge red nose and long, floppy shoes bounced and rolled into the middle of the ring. Then he stood up straight and froze. He stared at the audience as if noticing them for the first time. Slowly he bowed to the audience as graciously as a ballerina, but somehow he managed to trip over his own feet, did a somersault and landed on his bottom. The crowd roared with laughter until tears streamed down their furry faces.

The crazy clown was followed by acrobats who did incredible gymnastics and twisted their legs and arms into impossible positions. Jugglers threw sharp knives and flaming torches at each other as the audience gasped in amazement. Trapeze artists flew high above the heads of the mouse family and performed astonishing stunts without the safety of a net to catch them if they accidentally slipped and fell.

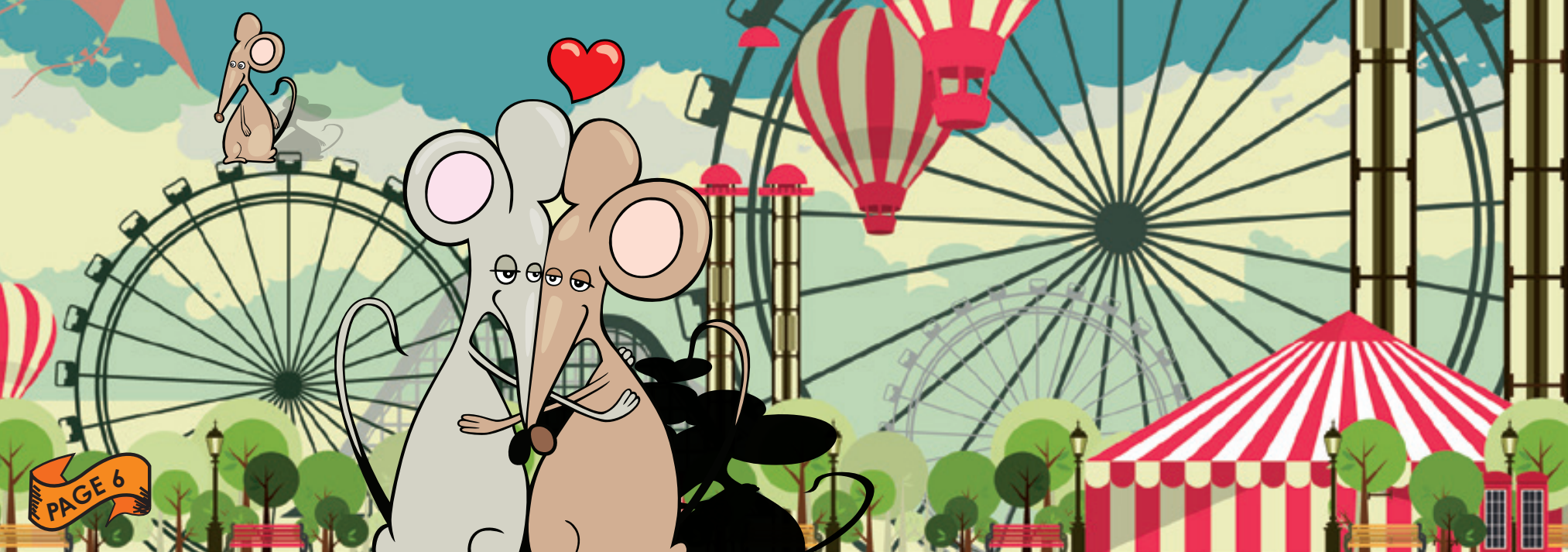
By the time the circus show ended, the quadruplets were thirsty after all the salty popcorn and the sweet candy floss, so the mouse family went looking for something to drink. At the cooldrink stall, each of the quadruplets wanted a different flavour: crème soda, cola, raspberry and orange. Vuyo and Gemma settled for a bottle of sparkling water each. The cooldrinks were R7,50 each and the sparkling water was R5,00 a bottle. Then it was time for the carnival rides! There were two roller coasters, a giant swing shaped like an old pirate ship, a water ride that left everyone soaking wet, an enormous Ferris Wheel from which the mice could see the whole of Mouseville, and many more fun rides. One of the quadruplets was lucky enough to win a gigantic teddy bear at the pop-a-balloon stall.

When the sun eventually started to slip over the western horizon, Vuyo gathered his tired family together to make their way back home. The Cheeseworld Carnival had been amazing and the quadruplets all agreed that it was an experience they would never forget. The mouse family had more than enough excitement for one day. They all fell asleep in the taxi on the way home and had happy dreams of clowns, acrobats, carnival music, roller coasters, popcorn and candy floss.

TEST YOURSELF

After reading the story above, can you answer the following questions?

1. **What was the name of the carnival that the mouse family visited?**
2. **What colours were the stripes on the carnival tent?**
3. **How much did the entrance tickets cost in total for the mouse family?**
4. **What colour was the clown's hair?**
5. **Did the trapeze artists have a safety net to catch them in case they fell by accident?**
6. **What did one of the quadruplets win at the pop-a-balloon stall?**
7. **Why do you think the clown tripped over his own feet?**



STAY CYBER-SAFE

Did you know that bullying can happen online? It's called cyberbullying, and it happens when young people use the internet, cell phones or other devices to send texts or images which they know will hurt, threaten, intimidate or embarrass someone else.

Cyberbullies sometimes pretend to be someone else when they are online, so that they can trick others. Often they will spread lies and rumours about their victims or get them to reveal personal information; they will post mean messages and pictures of their victims without consent. Bullying in any form is unacceptable and should not be tolerated, regardless of whether it takes place in real life or online.

Many young people these days are spending more and more time using technology as a means of communication: instant messaging, posting photos, visiting websites, chatting with friends, playing games, watching videos, and so on. In the online world there are millions and millions of users, not just your friends and family. People can be anonymous and sometimes you don't really know the person on the other side. While most online users are friendly, there are some who might want to hurt you. So, here are some things that you need to know to be safe online:

Block communication with cyberbullies.
Refuse to pass on any messages from a cyberbully if they say you should forward it to others.
Don't respond when someone sends you a mean or threatening message. Rather save it and show it to an adult. If you know someone else is being cyberbullied, don't join in. Help the victim by showing the bullying messages to an adult.
Never open emails from someone you don't know, or who you know is a bully.
If your friends are cyberbullying, tell them to stop it.
Report cyberbullying to an adult that you trust.
Never give out your personal information. This includes your address, telephone number, passwords, parents' names, friends' personal information, etc.
Protect your passwords. Never tell anyone except your parents.
Remember that the online world is a PUBLIC space. Even when you think your messages or pictures are private, they can still be made public. So NEVER post or text anything that you don't want anyone else to know.
Always be as polite online as you are in person.
Never meet anyone face-to-face if you only know them online.
Don't share anything online that you don't want your friends or classmates to see.
Read your message before sending it and ask yourself, "How would I feel if I received that message?"

Source: Department of Basic Education

Words that sound the same can be confusing

Homonyms are words that sound similar or the same, but have different meanings. Sometimes the words have the same spelling (such as "the bark of the dog was loud" and "the bark of the tree was brittle") and sometimes not ("we played on the tennis court" and "the police caught the robber"). The following sentences contain homonyms. Read them and circle the correct word:

It took the camel one month to cross the desert/dessert.
Desert/Dessert is my favourite part of a meal.

My uncle has week/weak knees.
There are seven days in a week/weak.

The bride and groom walked down the aisle/I'll.
Aisle/I'll call you later.

The horse was bred/bread for racing.
Brown bred/bread is better than white.

Tony has groan/grown taller than his brother.
All you ever do is moan and groan/grown.

I'm inviting ate/eight friends to my party.
I ate/eight all the food on my plate.

The strong wind blew/blue the roof off the house.
The colour of the sky is light blew/blue.

The library is a quite/quiet place to sit and read.
The curry my mother made was quite/quiet hot.

Be careful not to loose/lose your keys.
The knot you tied is not tight at all. In fact, it's very loose/lose.

I will accept/except your kind offer to help me with my chores.
Her whole family is really nice, accept/except her rude brother.

Source: funbrain.com

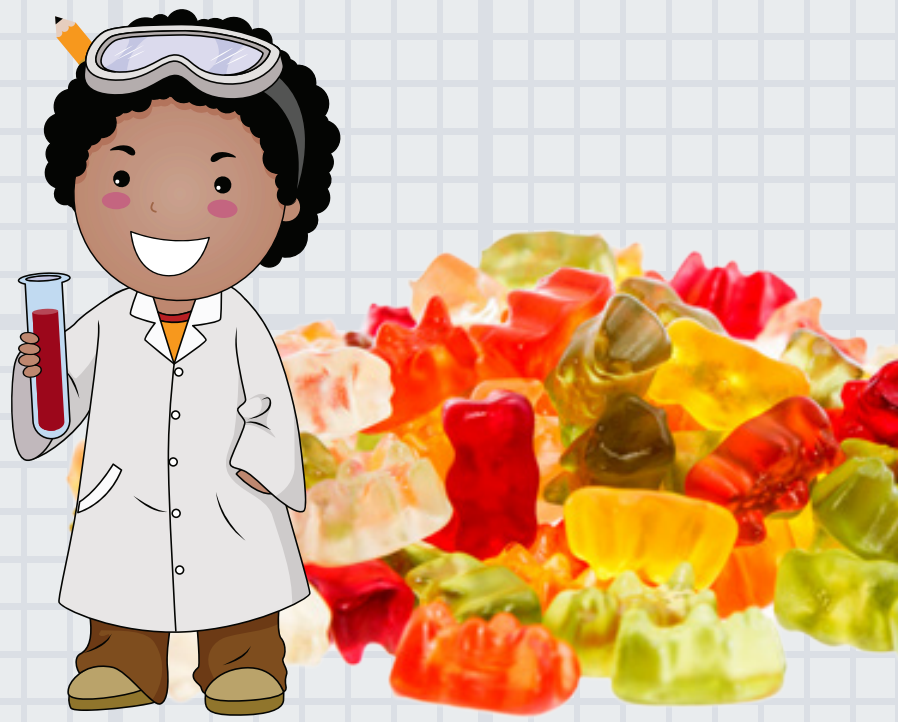
USE WATER WISELY

Water is one of the most important substances on our planet and it is essential for life. Without water, there would be no life on earth. Most of the water we use every day is stored in dams and reservoirs. However, this water can be used up if it doesn't rain for a long time, such as in times of drought. It is very important that we conserve water by using it sparingly and make sure we don't waste it unnecessarily. Here are some tips on what you can do to save water:

- Make sure you close the tap properly. No dripping!
- While you're washing your hands, don't leave the water running. Rather wet your hands and then turn off the tap. After using the soap, turn on the tap to rinse your hands, then turn it off again.
- Do the same when you're brushing your teeth. Don't leave the water running!
- If you're waiting for hot water to come down the pipes, catch the cold water in a container and use it for your plants.
- Don't flush the toilet when it's not necessary. Tissues, paper towels and dead bugs can be thrown in the bin instead of flushed down the toilet.
- Place a bucket outdoors to catch rain water, then use that water for your indoor plants.
- If you notice that a tap or toilet at school is leaking, then let one of your teachers know about it.
- Water the garden during the cool parts of the day, such as early morning or early evening. Water your lawn only when it needs it and don't water the lawn on windy days, because there will be too much evaporation.

Sources:
www.online.kidsdiscover.com
www.en.wikipedia.org

PROFESSOR THANDI'S FUN SCIENCE EXPERIMENT



Taste testing without smell!

Have you ever noticed that food just doesn't taste the same when you have a cold and your nose is blocked? Why does this happen? Let's do an easy experiment to find out.

YOU WILL NEED

- A potato.
- An apple.
- A knife (be careful with it – let an adult do the cutting for you).

INSTRUCTIONS

1. Cut out two small pieces of the fleshly part of the potato. Do the same with the apple, so that the pieces are all the same shape (so that you can't really tell the difference between them).
2. Eat a piece of apple, then eat a piece of potato. Can you taste the difference between the apple and the potato?
3. Now close your eyes and hold your nose with your fingers so that you can't breathe through your nose. Eat the apple. Then eat the potato. Can you still taste the difference between them?

ALTERNATIVE EXPERIMENT

You can do the same experiment with jelly beans (mixed flavours). See if you can identify each flavour in your mouth while your nose is closed and your eyes are shut.

RESULTS

Your nose and mouth are connected through the same airway, which means that you taste and smell foods at the same time. When you can't breathe through your nose, it makes it difficult to tell the difference between flavours.

Your tongue contains about 10 000 taste buds which pick up the flavour of the food you eat. These tastes include salty, sweet, bitter, sour and savoury (also called umami, which is Japanese for savoury). The bumps you see on your tongue are called papillae (pronounced puh-PILL- ee), and each one contains about six taste buds. Inside each taste bud are taste receptors which send messages to your brain about which flavours you are tasting.

However, taste doesn't work alone to distinguish all those flavours. While you're chewing, the food releases molecules which travel into your nose and are picked up by olfactory receptors (olfactory means relating to the sense of smell). These receptors then send scent messages to your brain. At the same time, the receptors in your taste buds are sending taste messages to your brain. So your sense of smell works together with your sense of taste to help your brain recognise different flavours. Without smell, food just doesn't taste the same. That's why food often tastes bland when your nose is blocked when you have a cold.

Sources: www.sciencekids.co.nz, www.brainfacts.org, www.discoveryexpresskids.com