

Get involved in our  
**#ThisisScience**  
Instagram competition

## PRIZES to be won



Take a photo and show us what science means to you during National Science Week (13–21 August).

Use the hashtag **#ThisisScience** to enter the competition and tag **@qldscience** in the post.

Join forces with a parent or guardian or make sure an adult knows you're entering

Visit [chiefscientist.qld.gov.au](http://chiefscientist.qld.gov.au) for more details.

**Closes 11.59 pm 21 August 2016.**

### The best jobs in the world all have science in common ...

Many people work in science-related jobs. Some people work with animals, others look to cure sickness, while others are helping to solve challenges such as climate change or helping to protect the environment. Some people work in rainforests, some hunt for fossils, others work on crime scenes.

*meet*

## **RACHAEL BARNES**

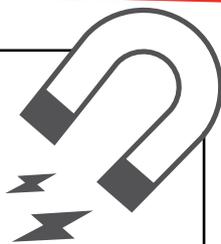
*—her knowledge of numbers has led to a high-flying career*

Rachael works as an Aircraft Performance Engineer for Virgin Australia. She calculates and provides pilots with take-off and landing data for day-to-day operations. This means determining the required speeds for take-off based on airport conditions such as temperature, runway length, pressure and mass of aircraft, and the maximum landing weight.

At university Rachael studied both science and engineering which gave her maths and physics knowledge as well as problem-solving skills.



## FIND A WORD **MAGNETS**



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

ATOM	FORCE	MATTER
ATTRACT	FREQUENCY	PLANETS
CHARGE	IRON	POLES
COMPASS	MAGNET	PULL
EARTH	MAGNETIC	RADIO
ELECTRONS	MAGNETOMETER	REPEL
FERROUS	MAGNETRON	STEEL
FIELD	MAGNIFY	

## **DID YOU KNOW?**



The earth is a very big magnet. Its north and south poles are highly magnetic.

A compass has a tiny magnet in it. The arrow always points to the North Pole.

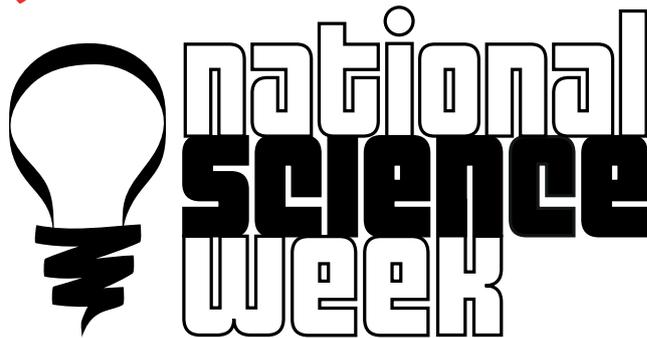


## **TRY AT HOME ...**

Not all magnets attract objects. Do a scavenger hunt at home to see what things a magnet will and won't pick up. Try it on:

- keys
- coins
- milk carton
- nails or screws
- tin foil
- pillow
- window
- book
- Lego

## **JOIN IN THE FUN DURING**



**13–21 August 2016**

National Science Week is Australia's annual celebration of science and technology where thousands of individuals—from students to scientists to chefs and musicians—are taking part in more than 1000 science events across the nation.

How to celebrate:

- check out [scienceweek.net.au](http://scienceweek.net.au) and search for your nearest event
- go for a walk in your nearest park, bushland or mountain—study the plants and listen out for native animals
- read a science book—visit [chiefscientist.qld.gov.au](http://chiefscientist.qld.gov.au) for book titles
- turn the lights out, go outside and look for stars—can you spot where the Southern Cross is?
- visit the beach, pick up litter and search for crabs or shells
- make your own experiments—visit [csiro.au/diy](http://csiro.au/diy).



## **WHAT A CRACKER!**

**Why can you never trust atoms?**

A: They make up everything!

**Why do tigers have stripes?**

A: So they don't get spotted.

**How do spacemen kill time on long trips?**

A: They play astronauts and crosses.

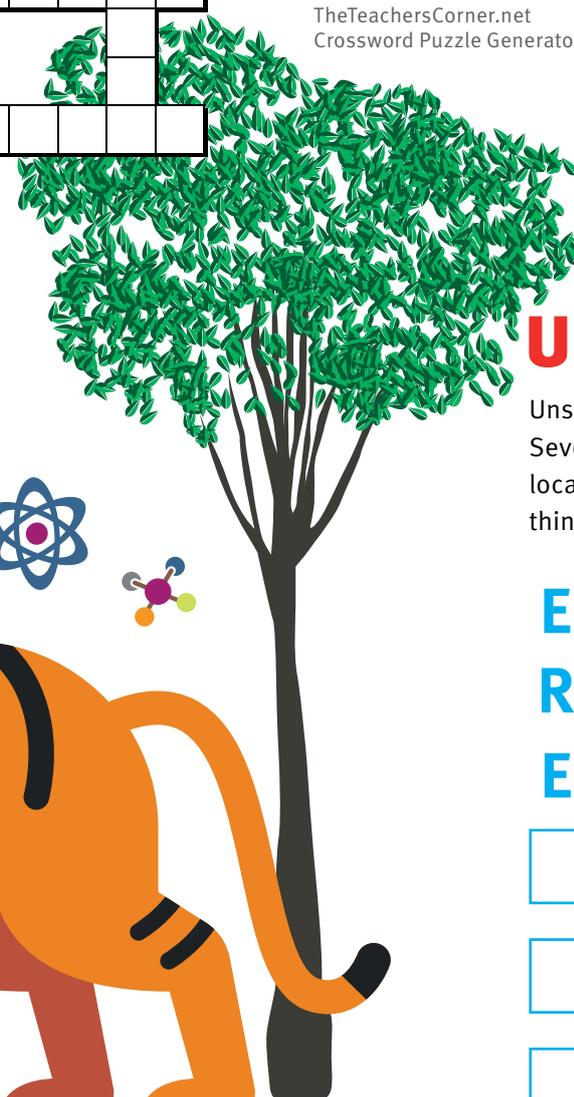
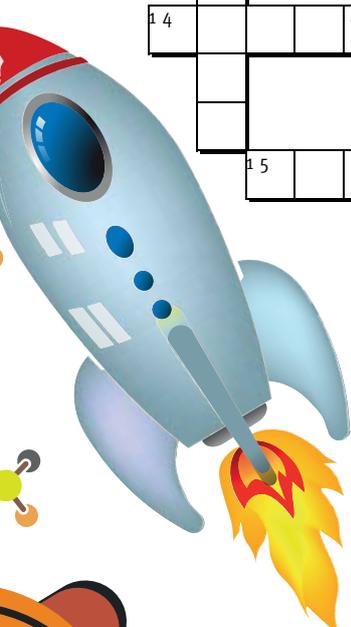
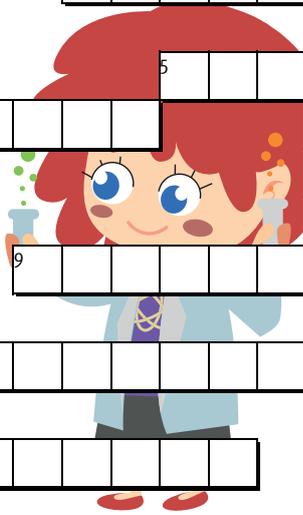
**How do trees get on the internet?**

A: They log on.



# ARE YOU A SUPER SCIENTIST?

CRISS-CROSS



Created with  
TheTeachersCorner.net  
Crossword Puzzle Generator

## ACROSS

1. A piece of iron or steel which attracts certain substances
4. The month National Science Week is held
5. \_\_\_\_\_ wide web
6. Spider or scorpion, for example
7. Coloured part of eye
9. An edible fungus
10. Cultivation of fruit, vegetables, etc.
12. Instrument to see things that are very small
13. The famous scientist who discovered gravity by looking at apples falling, Sir Isaac \_\_\_\_\_
14. Movie with famous robots R2-D2 and C-3PO (2 words)
15. Egg-laying mammal

## DOWN

2. Instrument to see planets
3. Current animal threat to the Great Barrier Reef
8. Animal doctor
11. Fastest land animal

## UNSCRAMBLE IT

Unscramble the letters to find one of the Seven Wonders of the Natural World which is located in Australia. HINT: It is the only living thing visible from space.

E G T A R  
R R I B A E R  
E R F E

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# Try this **EXPERIMENT** at home

## SWEET SCIENCE

Did you know many lollies contain letters using edible ink?

Try this science experiment to see how science is involved in making lollies.

You will need:

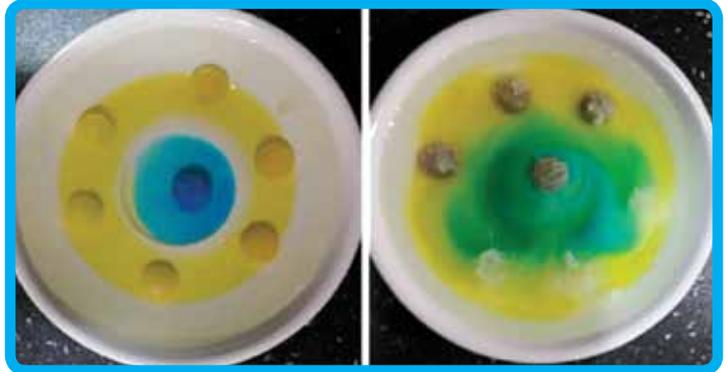
- a pack of M&Ms or Skittles (or both)
- a plastic plate or bowl
- water

**STEP 1.** Place a couple of M&Ms or Skittles with the letter facing up into a bowl or plate and pour enough water to just cover the lollies.

**STEP 2.** After two minutes you will start to notice that the sugar coating has begun to dissolve and some food colouring is dispersing into the water.

**STEP 3.** If you look closely, you'll also notice that the letters (M or S) have come free from the lolly and are floating on the surface of the water.

**THE SCIENCE INVOLVED:** The white letters on M&Ms and Skittles are printed with edible ink that doesn't dissolve in water. When the rest of the candy shell dissolves, the letters peel off and float. Some of the letters break into pieces, but a few should survive intact.



**Seriously FUN Science!**  
[www.streetscience.com.au](http://www.streetscience.com.au)

## The **REEF** is closer than you think Do your bit to keep it colourful

