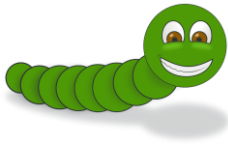


Junior Field Naturalists SA



Hi Junior Field Naturalists,

Newsletter - July 2020

We're back!!!!

We will again be holding our regular monthly meetings, field trips and other activities as from **30 July**. Procedures will be set in place to adhere to current policies and we'll send you further information in the next few days. *Please join us - we can't wait to see you all again!*

July Meeting

When: Thursday 30 July, 7.00pm, Bellevue Heights Primary School

Topic: **Great Southern BioBlitz**

Speakers: **Stephen Fricker** (UniSA; Great Southern BioBlitz Organising Committee; and Greater Adelaide City Nature Challenge 2020 Coordinator) and **Larissa Braz Sousa** (UniSA, studying Citizen Science for her PhD).

Overview: Looking at how **Citizen Science** can improve urban mosquito surveillance, Larissa and Stephen had a thought that, by the end of September, Australia's natural world is on full throttle. Flowers are blooming, insects are emerging, birds are singing, and reptiles are coming out of their winter hibernation. *It makes sense for Australia and for the rest of the Southern Hemisphere to observe life at this time of year!*

The purpose of the **Great Southern BioBlitz** (GSB) is to highlight both the immense biodiversity spread across the Southern Hemisphere in the flourishing springtime, as well as to engage the public in science and nature learning.



The GSB event for 2020 will be held from **Friday 25th September until Monday 28th September**, incorporating different communities, areas and regions across the Southern Hemisphere. The GSB collects all "observations" made on **iNaturalist** over the period. During this talk, we will introduce you to iNaturalist, show you how to make observations, and give you some tips and tricks on how to be a better user. *Come along to learn lots about nature!*

Program of Talks and Activities

Below are the dates of our regular monthly meetings for the remainder of 2020.

Unfortunately a number of planned activities had to be cancelled due to current circumstances, including our annual Bird Banding, Fungi Foray, Science Show, and special activities on board the Clipper Ship and at Cleland Wildlife Park. We'll be doing our best to ensure our club members still have the opportunity to enjoy some special events. *We will be adding more activities to our program, so this list will be updated as we lock in dates.*

30 July - Stephen Fricker and Larissa Braz Sousa: **GREAT SOUTHERN BIOBLITZ**

27 August - tba

24 September - tba

29 October - tba

3 December - **DAVID CHRISTOPHEL MEMORIAL QUIZ NIGHT**

Parents attend meetings and field trips with their children and are responsible for their supervision.

That Science Gang

Awesome SCIENCE! Awesome FUN!

That Science Gang creates innovative science-inspired edutainment experiences, including science shows and award-winning science-themed theatre productions. At the 2019 Adelaide Fringe Festival, both **The Alphabet of Awesome Science** and **This Show is NOT Rubbish!** won awards for "Best Children's Event". **That Science Gang's** STEM-focussed programs have been performed for hundreds of thousands of students and members of the public across SA, Tasmania and Victoria.

They have now produced a FREE online web series - *and it is lots of fun and learning!*

There will be 4 in the series: **Let's Explore** / **This Show is NOT Rubbish** / **The Alphabet of Awesome Science** / and **Good News**



The first series is now available:

Let's Explore ... PRESSURE

Episode 1: Nailed it!

Episode 2: Chalk and Cheese

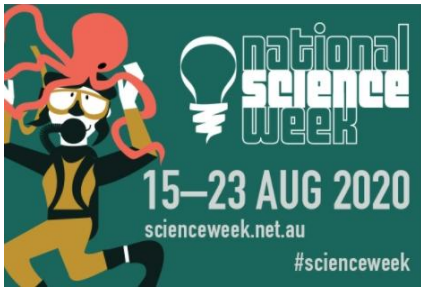
Episode 3: Nothing Sucks

Episode 4: Blow by Blow

Episode 5: Implode and Explode

Check it out at: <https://www.facebook.com/thatsciencegang> or the web site at:

www.thatsciencegang.com



National Science Week

National Science Week will be different this year, with online events, virtual tours and stay-at-home science experiences to help you celebrate science. *Some examples of events include:*

A Potted History of Koalas: hard questions about a soft animal

Thurs 6 Aug, 7pm, online: The Patron of our Club, **Prof Chris Daniels** from the International Koala Centre of Excellence, will bust many myths about koalas. Is disease a problem for koalas? Are dropbears real? For ages 10+.



The Scientific Bubble Show

1 - 9 August, various times, online: There will be Bubble Rockets, Bubble Tornadoes, Bubble Cubes, Bubble Merry-Go-Rounds, Bubble ice-cream, Bouncing Bubbles and - of course - Giant Bubbles!

The Great SA Fossil Debate

Sun 23 Aug, 4pm, online: Four of SA's leading palaeontologists will debate what time period in the history of life, represented in the SA fossil record, is the most important. Moderated by world-renowned palaeontologist and Dinosaur University Dean of Science, **Professor Flint**. Prof Flint will also take to the stage with several performers from the Adelaide Youth Theatre to sing and tell a story about each of the four time periods.



You can access online events from all over Australia, including competitions, animations, experiments, science shows, animals and the environment, and topics such as how zookeepers prepare nutritious food for the animals ... and so much more!

Check out the national web site for more information about these and other upcoming online events throughout August and beyond:

www.scienceweek.net.au

There is also an SA-specific online brochure available at **inspiringsa.org.au**
This brochure includes all the events and activities being developed by the South Australian community for **National Science Week**.

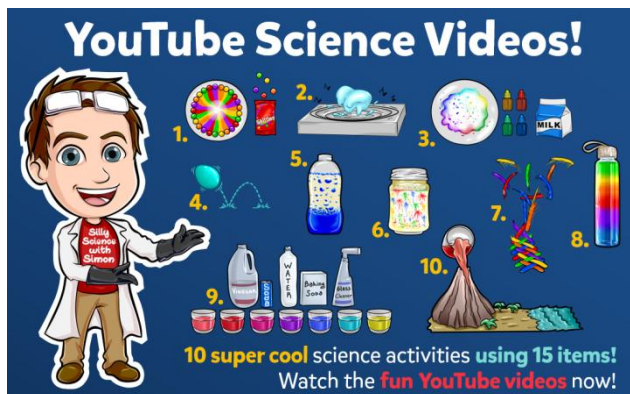


Silly Science with Simon



If you're looking for something fun to try at home, then check this out. You only need to buy 15 items to do all 10 of these super cool science activities! These are perfect for kids of all ages, with a little bit of adult supervision. Jump over to <http://bit.ly/schoolholidayscience> to find the shopping list and watch fun YouTube videos that teach you how to do each activity. Then you're all set to try them at home (and maybe learn a bit about science along the way).

Silly Science with Simon is a Youtube channel for kids run by Simon, a science graduate based in South Australia. *More Info:* <https://www.sillysciencewithsimon.com/>



Did you know ...?

- Even travelling at the speed of light, it would take 2 million years to reach the nearest large galaxy **Andromeda**.
- **Pumpkins** are usually labelled as vegetables but they contain seeds and are technically fruit.
- Around 1% of the sun's mass is **oxygen**.
- The name of the popular search engine '**Google**' came from a misspelling of the word 'googol', which is a very, very large number (the number one followed by one hundred zeros to be exact).
- The noise that is **thunder** is created when the air around lightning gets rapidly heated and expands at a rate faster than the speed of sound.
- **Light** takes 1.255 seconds to get from the Earth to the Moon.
- **Jupiter** has many storms raging on the surface, most notably the big red spot which is the largest hurricane in our Solar System. It's been raging for over 300 years.
- **Pluto** was the smallest and furthest planet from the Sun in our solar system, but now it is not even officially recognized as a planet! In 2006 Pluto was demoted to the status of dwarf planet.

- **Mars** has many massive volcanoes and is home to Olympus Mons, the largest volcano in our solar system, it stands 21km high and is 600km across the base.
- An **elephant** can use its tusks to dig for ground water. An adult elephant needs to drink around 210 litres of water a day.
- **Cheetahs** are the only big cat that cannot roar. They can purr though and usually purr most loudly when they are grooming or sitting near other cheetahs.



Have fun with science ...

Roll a Can with Static Electricity

For this experiment you will need:

- An empty soft drink can
- A blown-up balloon
- A head of hair



What to do:

1. Place the can on its side on a flat, smooth surface like a table or a smooth floor.
2. Rub the blown-up balloon back and forth through your hair really fast.
3. *Now the fun part!* Hold the balloon close to the can without actually touching the can. The can will start to roll towards the balloon without you even touching it!

Try this too: While you've got the balloon out, tear up part of a tissue into tiny pieces about 0.5cm big. Rub the balloon in your hair again and bring it close to the tissue pieces. They will be attracted to the balloon and then jump away.

What happened in this experiment?

When you rub the balloon through your hair, invisible electrons (with a negative charge) build up on the surface of the balloon. This is called **static electricity**, which means "non-moving electricity". The electrons have the power to pull very light objects (with a positive charge) toward them - like the soft drink can.



Try to answer these questions:

- Does the **size of the balloon** change the power of the pull?
- Does the **length of the person's hair** affect the power of the static electricity?
- How much **water** can you put in the can until the balloon can't pull it any more?

This experiment is from Sciencebob.com



Blowing up Balloons with CO₂

Chemical reactions make for some great experiments. Make use of the carbon dioxide given off by a baking soda and lemon juice reaction by funnelling the gas through a soft drink bottle and in to your awaiting balloon!

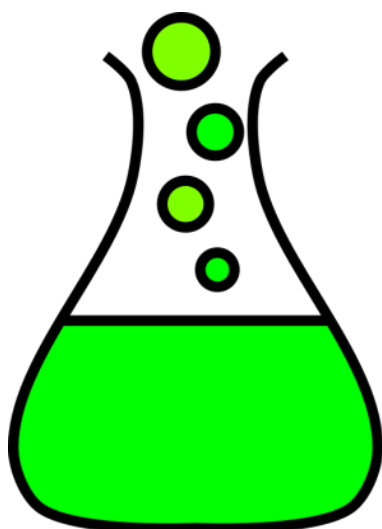
For this experiment you will need:

- 1 balloon
- About 40ml of water (a cup is about 250 ml so you don't need much)
- Soft drink bottle
- Drinking straw
- Juice from a lemon
- 1 teaspoon of baking soda



What to do:

1. Before you begin, make sure you stretch the balloon to make it as easy as possible to inflate.
2. Pour the 40ml of water into the soft drink bottle.
3. Add the teaspoon of baking soda and stir it around with the straw until it has dissolved.
4. Pour the lemon juice in and quickly put the stretched balloon over the mouth of the bottle.



What happened in this experiment?

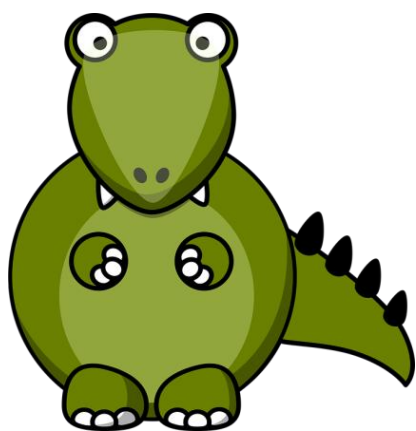
If all goes well, then your balloon should inflate! Adding the lemon juice to the baking soda creates a chemical reaction. The baking soda is a base, while the lemon juice is an acid, and when the two combine they create carbon dioxide (CO₂). The gas rises up and escapes through the soft drink bottle. It doesn't however escape the balloon, pushing it outwards and blowing it up. If you don't have any lemons then you can substitute the lemon juice for vinegar.

This experiment is from Science Kids.



Interesting Facts about Lizards

- Lizards are **reptiles**.
- Some lizards can **detach their tails** if caught by predators.
- The upper and lower eyelids of **chameleons** are joined, leaving just a small hole for them to see through. They can move their eyes independently however, allowing them to look in two different directions at the same time.
- Chameleons have **long tongues** which they rapidly extend from their mouth, too fast for human eyes to see properly.
- Chameleons generally eat **insects**.
- Some chameleons have the ability to **change colour**. This helps them communicate with each other and can also be used for camouflage.
- Geckos have **no eyelids**.
- Geckos have **unique toes** which allow them to be good climbers.
- Iguanas have a **row of spines** which run down their back and tail.
- **Green iguanas** are popular pets.
- The **Komodo dragon** is the largest type of lizard, growing up to 3 metres in length.
- They are found on a number of different **Indonesian Islands**.
- Komodo dragons are **carnivores** (meat eaters) and can be very aggressive.

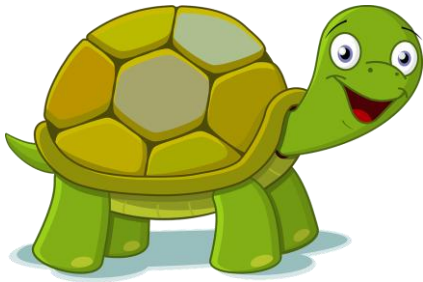


And 2 science jokes just for fun ...

1. What do you call two dinosaurs that have been in an accident? ***Tyrannosaurus wrecks***
2. Why do tigers have stripes? ***So they don't get spotted.***

Information from Science Kids





See you soon!

We are very much looking forward to seeing all our enthusiastic club families again on Thursday 30 July.



Rona Sakko, President - Junior Field Naturalists SA

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Patron: Prof Chris Daniels



From bing.com/images

