Junior Field Naturalists SA

Newsletter - April 2022

Hi Junior Field Naturalists,

April Meeting - *being held in May*

When: **Tuesday 3 May**, 7.00pm, in the Gym of the Bellevue Heights Primary School. This meeting is one week later than usual to avoid school holidays, hence our April meeting is being held in May.

Topic: **SEA STARS and SEA URCHINS**

Speaker: Our speaker is **Mr Peter Hunt**. Peter is a volunteer with SA Museum (Marine Invertebrate section), Reefwatch SA, and Conservation Council SA.

Overview from Peter: I will talk about these amazingly interesting prickly organisms. One SA species is talked about in the Guinness Book of Records. Did you know they have fleas, and urchins can be the noisiest creatures on a reef? Commonly found in rock pools around the world, it may surprise you to learn about how they live, what they eat, and just how many colours, shapes and sizes there are. We will discover their roles in the marine ecosystems from the Great Barrier Reefs to the Antarctic.

Image: Karen Gowlett Holmes
SA Museum Image Library

I will bring lots of pictures, books and example specimens to inspect.

Program of Talks and Activities

Below is our current schedule of dates for 2022. We will be including more activities as the year progresses, so this list will be updated as we lock in additional dates and programs.

Have a particular topic or field trip you would like us to include? Let us know and we'll see what we can do to make it happen.

3 May - Peter Hunt: **SEA STARS and SEA URCHINS**

Saturday 7 May: 3.30pm - THE IMPORTANCE OF HOLLOWS: Talk & walk in Belair National Park, led by James Smith from Faunature, in conjunction with Belair Bush Buddies

31 May - Danielle Clode: **TELLING THE STORIES OF SCIENCE**

Sunday 26 June: FUNGI FORAY FIELD TRIP (Belair National Park)

28 June - Animals Anonymous: **AUSTRALIAN NATIVE ANIMALS**

26 July - Prof Philip Weinstein: **COCKROACHES**

30 August - tba

27 September - Greg Johnston: **FEATHERS**

25 October - tba

29 November - **DAVID CHRISTOPHEL MEMORIAL QUIZ NIGHT**

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

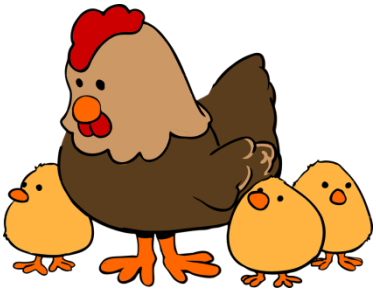
Joining the Club

To hasten enrolments at our meetings, new and returning members can download an application form from our web site at: http://jfnsa.com.au/downloads/

Fill it in and bring it along on the night. We accept cash or cheque payments, or you can do a direct bank deposit - details are on the form.

Random Fact

The longest ever recorded flight of a chicken was only 13 seconds.



The Importance of Hollows

Our Club will join with the Belair Bush Buddies on this special field trip. It is also open to any other families who would like to join us, so spread the word.

When: **Saturday 7 May 2022**

Time: **3.30pm to 5.15pm**

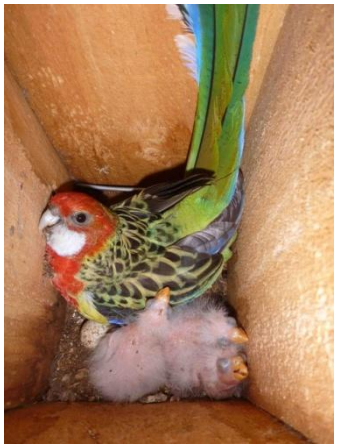
Where: **Belair National Park** - Meet at the Volunteers Centre, Long Gully. On arrival at the Park, let the staff at the entrance know that you are there to attend this Bush Buddies field trip and you will not be charged an entry fee to the park.

Cost: Free

Bookings: On Eventbrite at -
https://www.eventbrite.com.au/e/the-importance-of-hollows-tickets-325391975157

More Info: For any queries, contact Rona at rona.sakko@gmail.com or 0419 827 723

This event will begin with a 45 minute presentation looking at how hollows form, what species/taxa use hollows, and other exciting hollow creation developments.



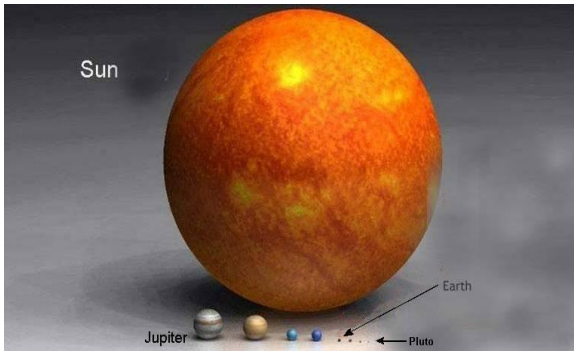
Then we head off for a walk, studying trees from a perspective of:

- How many have hollows?
- What sizes are the hollows?
- What species are they likely to support?
- How long do hollows take to develop?
- Can we see any signs of the hollow being used?
- When are hollows likely to be used?
- What are the biggest threats to hollow-dependent species?

Presenter: Our presenter is **James Smith**. James runs **fauNature**, a company dedicated to assisting people in attracting and engaging with local wildlife. He is fascinated by our fauna, whether it crawls, walks, swims, runs or flies. He encourages greater understanding and conservation of our remarkable native wildlife, whether they are found in a world-renowned national park or your own backyard.

He is also a **Whitely Award winner** for his comprehensive wildlife book, **Wildlife of Greater Adelaide**.

Did you know ...?



* Our **planetary system** is shaped like an egg.

* The planets orbit the Sun due to its **gravitational pull**.

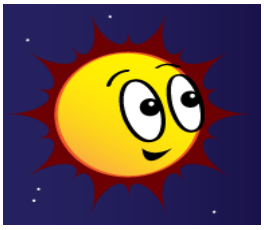
* Each of the planets have **different orbits** around the Sun.

* The **further from the Sun** a planet is, the longer it takes to orbit the Sun.

* The Sun is **huge**! In fact, the Sun makes up about 99% of the mass in our system of planets.

* It takes the Earth 365 days to go around the Sun. This is why there are **365 days in a year**.

* Can you guess how old our system of planets is? Well, believe it or not, some scientists think that it`s over **4 billion years old**!



* Our planetary system is part of a galaxy called the **Milky Way**. No, we're not talking about the chocolate bar!

From http://astronomy-for-kids-online.com/

Just for Fun

Q. What do you call a missing octopus?
A. An octo-gone!

Q. Did you hear about the tree growing outside the maths classroom?
A. It grew square roots.

Q. Which month has 28 days?
A. All of them!

Q. How many apples can you put in an empty box?
A. One. After that, it's not empty any more.

Q. Why did seven eat nine?
A. Because you're supposed to eat three squared meals a day.

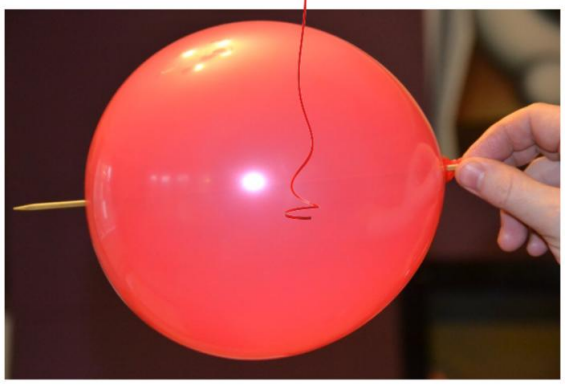
Q. What is a bird watcher's favourite type of maths?
A. Owl-gebra.

From https://gosciencekids.com/

SKEWER A BALLOON

You'll need:

Balloon
Washing up liquid/Dish soap
Skewer



Instructions

Place a little washing up liquid/dish soap on each end of the balloon where the balloon material is thickest. This is where the balloon material is under the least strain.

Carefully push the skewer through the two dish soap coated areas.

Why does this work?

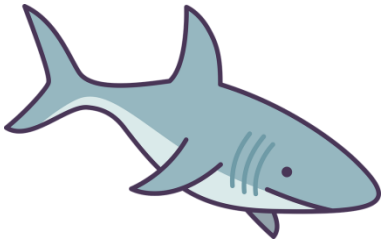
Balloons are made up from long chains of molecules called polymers, which are elastic enough to allow the balloon to stretch.

The polymer chains of the balloon close around the skewer which stops the air escaping and allows the balloon to stay inflated.

Challenge

Try again using clear tape and pierce the balloon through the middle!

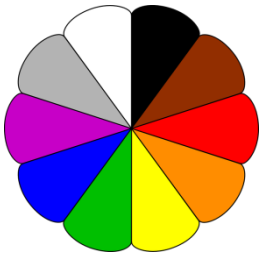
Facts About SHARKS



- A shark possesses an amazingly **sharp sense of smell** and can detect even a single drop of blood in the water.
- A **shark's skeleton** is made up of cartilage that is tough and has flexible tissues. There is not a single bone in their bodies.
- They possess **powerful hearing** too, because of which they can hear a fish thrashing around even 500 metres away.
- Sharks have a set of **smaller teeth** behind the front teeth. The smaller teeth move forward and the front teeth then fall off.
- Sharks have to keep moving to get **oxygen** into their bloodstream, as the water passes over the gills.
- **Great whites** can cut through the water at a speed of 30 km/h and are the deadliest of all.
- The **whale shark** can grow up to a massive length of 14 metres when fully developed.
- Some shark species lay **eggs** instead of living pups.
- A **baby shark** has to fend for itself right from birth, as its own mother could eat it up.
- The **great white** has to eat large quantities of meat to keep its body temperature regulated.
- Each shark species has a **different set of teeth**.

From parenting.firstcry.com

Do you know your Colours?



Is white a colour?

No. In physics, a colour corresponds to a specific wavelength of visible light, but white light is the interpretation our brain gives to a mix of all wavelengths.

Is pink a colour?

No. Pink is an interpretation that the brain puts on the combination of red and white light, but there is no "pink" wavelength of light, so again, no. Pink is not a colour.

Is black a colour?

No, but you could think of it as dark white. Black is just a relative low intensity of photons. If you were better at detecting them, black might appear to be white.

From ABC

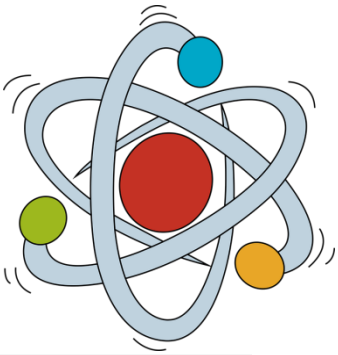
Test Your Knowledge

What is the hottest?

a) The core of the Earth
b) The surface of the Sun
c) The core of the Sun
d) The surface of the Earth

The Sun's core is the hottest with temperatures up to about 15 million degrees Celsius, then the Earth's core and the Sun's surface both get to about 6,000 degrees Celsius. Finally, the Earth's surface which can reach peaks of around 57°C. *But the hottest thing in the universe is said to be the seatbelt buckle when you're getting back into the car on the way back from the beach.*

When were atoms first formed?



a) During the Big Bang
b) 380,000 years after the Big Bang
c) There's no such thing as atoms

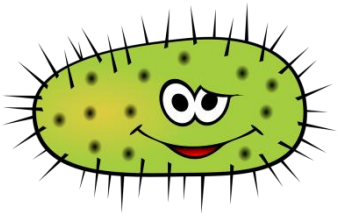
Right after the Big Bang, the universe was extremely hot and dense. As the universe cooled, quarks and electrons were all made. A few millionths of a second later, quarks aggregated to produce protons and neutrons. Within minutes, these protons and neutrons combined into nuclei. Then it took 380,000 years for electrons to be trapped in orbits around nuclei, forming the first atoms.

Why would it be good to be a bug?

a) Get to wear more shoes
b) Spend all day eating one grape
c) Can look directly at the Sun

Insects can look directly at the sun without damaging their eye because their compound eyes work very differently from our simple focusing lenses, and do not focus the whole of the light rays onto a single retina. In fact, some bugs have to look at the sun to navigate.

How much of your body weight is bacteria?

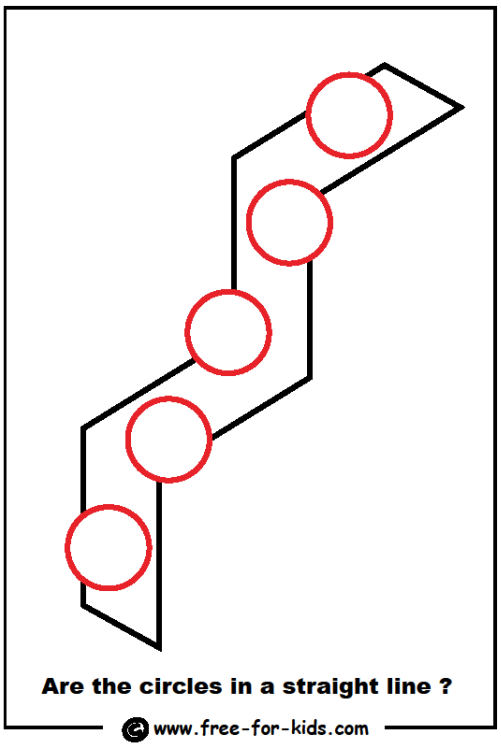


a) 50 per cent
b) Depends on what I have been eating
c) About a bag of grapes' worth

One to two kilos. Despite bacterial cells outnumbering human cells in the body, their tiny size means the total bacterial weight is close to a bag of grapes.

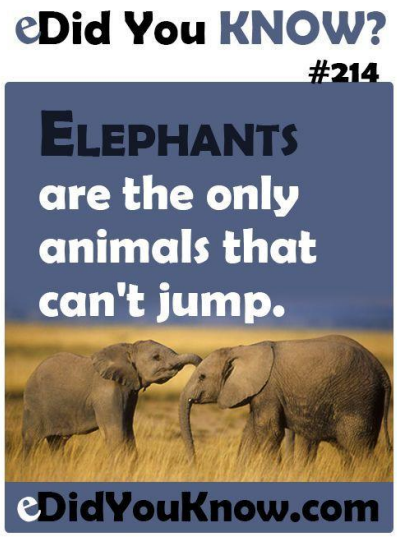
From ABC

Optical Illusion



Are the circles in a straight line?

The wavy line helps to persuade our brains that the five circles are not in a straight line but the only way to be sure is to place a ruler or straight-edge on the page.



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