Hi Bright Sparks!

Below is the list of exciting science club events for January and February 2017.

Our Bright Sparks Science Club has enjoyed another hugely successful year, with more than 160 sessions of 74 diverse, fun and educational activities.

Over the past busy 12 months, our club also set up interactive displays at such events as Science Alive and the University of Adelaide’s Open Day in National Science Week, a science day at Aberfoyle Hub Primary School, the Adelaide Maker Faire, and the Australian Association for Environmental Education conference.

On top of that, a number of our club members have featured in episodes of the TV program, SCOPE.

Don’t forget that we are one of the Learning Destinations with Children’s University, so participants can bring their Passports to Learning along to each event and we will validate your attendance.

The club’s Facebook page started at the beginning of the year, so like us and keep spreading the word.

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**Renewing your membership**

All club memberships fall due for renewal on 1 March each year. You can renew your membership at any time from now on for the annual fee of $50 for a family with one child, and $60 for a family with 2 or more children age between 6 and 15. This will take your membership up to March 2018. Simply go online at www.sciences.adelaide.edu.au/bright-sparks/

A club membership will also make a great Christmas gift.

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**Booking for Events**

Our preferred booking option, which also gives you the convenience of pre-paying, is to book online via: www.sciences.adelaide.edu.au/bright-sparks/

You also have the option of emailing us at brightsparks@adelaide.edu.au or calling Rona at any time on 0419 827 723.

*Note that online booking via Eventbrite is for MEMBERS ONLY. If an event is also open to non-members, they need to book via phone or email.*

**Event booked out?** Don't panic! Contact Rona as per the above details as additional sessions may be available.

**Cannot make an event for which you have booked?** Please make every attempt to come to events for which you have booked or contact us as soon as possible if you need to cancel any event.

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*Best wishes for an enjoyable holiday period and we look forward to seeing you at upcoming events.*

Rona Sakko, Coordinator, Bright Sparks Science Club - 0419 827 723
Bright Sparks Science Club Events: January - February 2017

Bookings are essential for these events.

Book via www.sciences.adelaide.edu.au/bright-sparks/ (preferred)
or email brightsparks@adelaide.edu.au or call Rona on 0419 827 723

<table>
<thead>
<tr>
<th>No</th>
<th>Date</th>
<th>Event</th>
<th>Time</th>
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| 1  | Saturday   | "The Science of Sound" Science Show & film: "Sing" | Science Show: 8.45am | Capri Theatre, 141 Goodwood Rd, Goodwood | Members & families | Members: $12 child
|    | 7/1/17     |                        | Interval: 9.15am |                           | Also open to non-members | $12 adult
|    |            |                        | Organ: 9.30am  |                           | Non members:    | $15 child
|    |            |                        | Film: 9.45am   |                           |                | $15 adult
|    |            |                        | Finish: 11.45am|                           |                |                    |

We’ll start off with another stunning science show with David from Mobile Science Education.

He will explore the science of sound and the human pre-occupation with it. How can waves stand? Why is a vibration pleasing or not to the ear? What the heck is a Rubens Tube anyway?

Discover all this and more as we traverse the ups and downs, highs and lows, wibble and wobbles that is sound!

A short break will follow this entertaining and educational science show.

Then the mighty Wurlitzer pipe organ will play for 15 minutes prior to the start of the film.

Sing is an animated comedy in a world where animals walk, talk, wear clothes and - yes - sing. Buster, a koala, proposes to host a singing competition in a last-ditch effort to save his theatre.

Animals from near and far gather to vie for the prize money, including a gorilla trying to get out of his father's gang, a suburban mama pig, and even a gambling mouse.

Animated fun for the whole family.
### Tour of Adelaide Oval

Be led on an unforgettable journey into the inner sanctum of the magnificent Adelaide Oval in this behind-the-scenes tour.

Go behind closed doors where you'll discover hidden secrets and relive celebrated moments. Witness the unique integration of the Oval's iconic heritage blended seamlessly with world-class facilities. Features include historical points of interest, dressing rooms, stands, grassed northern mound and century old Moreton Bay Fig trees.

Access restricted areas and experience the roar of the crowd as you take to the ground through the interactive players' race.

Step into living history as you explore inside the iconic scoreboard, and see where the world’s greatest musicians have entertained sold-out crowds.

Adelaide Oval in-depth tours are led by expert volunteer guides who share their unique and captivating tales.

Allow additional time after the tour to view the famous Bradman Collection, on loan from the State Library of SA.

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<tr>
<td>11.30am</td>
<td>Adelaide Oval Meet in the foyer of the Adelaide Oval Visitor Centre (next to the Oval’s cafe), Level 1 of the Riverbank Stand - access via South Gate off Telstra Plaza, War Memorial Drive</td>
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**Members & families**

- **$12** child age 5 to 15
- **$20** adult

### Tech & Treasure at the State Library

This tour of the State Library of SA includes the magnificent Victorian-era Mortlock Wing, voted one of the 20 most beautiful libraries in the world.

Go behind the scenes for an exclusive visit to the preservation and conservation areas (beneath the Mortlock Wing). There you'll talk to specialist staff practicing state of the art techniques to save South Australia's heritage, and learn how conservators wage war on "bookworms", the pest and moulds that eat books! See ancient book-binding equipment and discover how microfilm is created.

In the new Learning Studio, you will have an amazing experience creating a poster on the Glogster app using iPads and a digital whiteboard, plus photos and images from the library’s collections.

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<tr>
<td>10.00am &amp; 12.30pm</td>
<td>State Library of SA, North Tce, Adelaide Meet in the forecourt, under the plane tree.</td>
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Most suitable ages:

- Members age 9 & up

Free
Navigating Neuroscience!

Why does food not taste good when you have a cold? How do neurons communicate? What does a brain look like up close?

Discover the answer to these questions and more!

You will explore how the brain and nervous system work in an engaging, hands-on way by participating in a series of interactive neuroscience exhibits at the Adelaide Medical School at the University of Adelaide.

Your presenters are Dr Lyndsey Collins-Praino and Dr Renee Turner from Kids Navigate Neuroscience.

At the end of the session, put your brain cells to work and show us what you've learned as you compete to win prizes!

This January, come and meet your brain!

90 minute session at: 10.00am

University of Adelaide Medical School
30 Frome Road, Adelaide

Everyone, including adults, must wear enclosed shoes.

Platform 1 Light & Sound Show

The Platform 1 Light & Sound Show depicts early German settlement in the Adelaide hills and describes how they forged their farming and family life in this new land.

Our adventure starts with a country-style supper in the dining car of a 1955 railway carriage. This includes scones, muffins, cheese, crackers, tea, coffee and juice.

Sit in the original barn and learn the trials and triumphs of the courageous pioneers.

Then we will be transported by train for our night ride through this historic farm as it comes back to life.

Listen to the machines stir from their slumber, and farming noises of the past. Watch as the buildings light up to tell you their remarkable stories of yesteryear. Be there as a "bushfire" rages through the creek, and seek shelter from the "lightning storm"!

*Using special effects, lighting and sound, this journey is one that creates an entertaining and exciting atmosphere for all.*

One hour session at: 9.00pm

Platform 1 Heritage Farm Railway, Junction Rd, Littlehampton

Amazing interactive experience using visionary special effects.

Night Tour of Old Adelaide Gaol

Guided history tour of the gaol which opened in 1841 and operated for 147 years until its closure in 1988. It was the longest continuously operating prison in Australia.

The gaol is a major part of Adelaide's heritage, with its history extending from the time of the early settlers right through to today.

Learn about our penal history in what is one of the two oldest public buildings in Adelaide. The other is Government House which was built at the same time as the gaol.

See cell blocks, exercise yards and more. Hear about infamous inmates and other characters and their stories.

90 minute tour at: 7.30pm

Old Adelaide Gaol, 18 Gaol Rd, Thebarton

Ample parking available.
**Wednesday 18/1/17**

**Flashing LED Art**

Led by presenters from eLabtronics, you will learn easy graphical computer programming with STEMSEL technology.

Then you will create your own Aboriginal technology artwork to symbolize reconciliation and the connection between Aboriginal culture and science.

Create and paint your picture and mount lots of light emitting diodes (LEDs) on your artwork. You will program the little lights to flash on and off and to react to a light sensor.

Take it home and impress your family and friends. If you want, you can also enter your technology artwork in the 2017 Adelaide Show Inventors’ Competition later in the year.

Bring your own Windows laptop to install software.

**Start:** 9am  
**Finish:** 3pm  
**Meeting Location:** University of Adelaide, North Tce Campus, Bragg Building  
**Gate:** 9 on Victoria Drive, opposite the Uni Footbridge, 15 minutes before the start.

**Free**  
**Members:** age 8 & over  
**Child:** $90  
Includes materials, STEMSEL Mini Controller, LEDs, etc to take home.

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**Thursday 19/1/17 & Friday 27/1/17**

**Healthy Soils + Healthy Plants = Healthy You**

You will participate in a range of fun and educational activities revolving around plants and agriculture.

Learn about the relationship between soils, plants and you! If the soils and the plants are healthy, then they will help to make a healthy you. You will also build your own mini terrarium.

The Waite Campus is the largest agricultural research and teaching precinct in the Southern Hemisphere and a leading centre of Australian research capability in wine, grains, soil and plant breeding.

**Start:** 9am  
**Finish:** 3pm  
**Meeting Location:** University of Adelaide's Waite Campus, Hartley Grove, Urrbrae  
**Meeting Location:** Meet on the ground floor of the West wing of the School of Agriculture, Food and Wine (Building 19).

**Free**  
**Members:** age 10 & under  
**Free**

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**Thursday 19/1/17 & Friday 27/1/17**

**From One Plant to Another: The Secrets of Life**

You will participate in a range of activities revolving around plants and agriculture in this new Why Waite program.

Experiments include extracting DNA and understanding the transgenic (genetic engineering) process.

You will also undertake sensory aroma analysis and find out what taste really is and how the chemistry of food affects it.

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**Free**  
**Members:** age 10 & over  
**Free**
**Tour of SAHMRI**

Tour of this flagship health and medical research institute.

The visually striking facility houses more than 600 leading researchers working together for better treatments and cures for some of the world’s most challenging diseases.

On this tour, you will gain a deeper understanding of why medical research plays such a vital role in our community, and an insight into why SAHMRI as an organisation is so unique.

You will be treated to stunning views of this state of the art facility and well-recognised architecture. The building is ecologically sustainable, responding to its surrounding environmental conditions to minimise the use of energy.

60 minute tour at:
11.00am
SAHMRI, North Tce, Adelaide
Please arrive 15 minutes before the start time.

**Forensic Frenzy!**

There’s been a crime! A bicycle has been stolen and you - as forensic scientists - need to find out who did it.

You will examine patterns in fingerprints left at the crime scene. What patterns do your own fingerprints have?

Use chromatography techniques to test inks as part of your investigation. Match tyres to a cast of the tyre print found in the mud. Make your own plaster cast of your hand. Use a UV light and test soil.

There are also lots more scientific tests to be undertaken as you amass the evidence to find the guilty thief. You’ll also learn how difficult it is, when witnessing a crime, to then accurately recall the details of what you saw.

At the end of the session you will collate your data and work out whodunnit!

90 minute sessions at:
10.00am
12.30pm
3.00pm
University of Adelaide, North Tce Campus, Braggs Building
Meet at Gate 9 on Victoria Drive, opposite the Uni Footbridge, 15 minutes before the start.

Everyone, including adults, must wear enclosed shoes.

**Classic Jets Fighter Museum**

This is SA’s leading museum of military aviation.

The program for our group consists of balloon jet making (to demonstrate jet propulsion), museum tour, and watching aircraft restorations taking place.

Experience what it would be like to be a real jet fighter pilot as you sit in the cockpits of such aircraft as the Sea Venom. Check out the Tiger Moth and Chipmunk and other military aircraft, aviation artefacts, jet aircraft engines and displays.

You will also be taken on a guided tour the Restoration Hangar where a rare F4U-1 Corsair is currently being restored, a major project that will take at least another 2 years to complete.

Our session includes a special visit (weather permitting) to the Observation Deck of the Airport Control Tower to watch planes taking off and landing. This area is normally off limits to the public.

2 hour session at:
10.00am
Hangar 52, Anderson Drive, Parafield Airport
Members & families
$5 child
$5 adult
Christie Walk Eco City
The Urban Ecology group will take us on a tour of this development that promotes nature and people-friendly urban environments.

The eco city, Australia’s first seriously green inner-city housing development, includes a variety of dwellings aimed at achieving energy and resource efficiency.

We will check out a straw bale house, the rooftop garden (a first for SA) and the community produce garden, plus other features such as storm water collection and recycling, solar energy for electricity generation, extensive use of recycled materials and much more.

This is big-picture, global thinking in action!

Then it will be time for the fun, hands-on activities that will teach you about recycling and how to reduce your carbon footprint, followed by a relaxing nature art session. See how our reliance on our planet's resources can best be explained using wool, glasses and bull-dog clips!

2 hour tours at:
101 - 105 Sturt St, Adelaide

10.00am
&
2.00pm

Maritime Museum Tour and Dolphin Cruise
Guided tour of the Maritime Museum which has one of Australia’s great nautical collections. Includes First Voyages display, replica ketch, Tapestry of Treasures, records of shipwrecks and much more about our maritime history.

Our guides will also take us through the latest exhibition, “Brought to Light” which showcases large format black and white photographs of the interiors of historic buildings and sites in Port Adelaide that are inaccessible to the public.

You will also be able to climb up the Lighthouse which was first lit in 1869.

Please be aware that the lifts in the Museum will not be functional throughout February due to maintenance work.

Then we’re off on a relaxing twilight cruise on the boat Port Princess as we view dolphins, historic sites, the submarine base, old quarantine station and mangroves. The Port River is special, being one of only 2 places in the world with permanent dolphin pods.

If you wanted to arrive earlier in the day, the massive indoor Fisherman’s Wharf Markets (with over 120 stalls) will be open from 9am to 5pm.

3.30pm to 5.00pm:
Maritime Museum and Lighthouse

5.30pm to 7.30pm:
Dolphin Cruise

If you would like to have tea or just a snack, refreshments will be available to purchase on the Port Princess. Includes hot dogs, calamari, squid, chips, chicken nuggets, toasted sandwiches, drinks etc.
**STEM Brain Games**

Playing board games is good for your brain! It improves logical thinking and makes us all better learners.

This unique workshop will be engaging, hands-on and loads of fun.

Using board games and puzzles, children will learn concepts of light, circuit design, magnetism, physics, maths, engineering, construction and more.

The children will also participate in virtual reality games in each session.

This brain enrichment program will be presented by Rack the Brain.

60 minute sessions at:

- 1.30pm (under 10s)
- 3.00pm (over 10s)

Families with children in both age groups can pick either time.

University of Adelaide, North Tce Campus, Bragg Building
Meet at Gate 9 on Victoria Drive, opposite the Uni Footbridge, 15 minutes before the start.

Everyone, including adults, must wear enclosed shoes.

Members $25 child

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**Goo Roo Animation**

This will be an action-packed workshop where you make your own claymation movie.

The GooRoo Animation introductory workshop opens the door to the exciting and inspirational world of animation.

Using team work and problem-solving skills, participants create their own plasticine characters and bring them to life using the latest app technology (Stop Motion Studio App) on mobile devices. It's an interactive and engaging experience that's designed to inspire and provide the knowledge and tools to make movies at home.

You will also get a look at GooRoo characters and films, observe a live stop-motion demonstration, understand the different animation styles and see how animation has changed since the early days of Walt Disney.

This will give you a behind-the-scenes glimpse of what goes into producing animation on a professional level.

The workshop will be in 3 sections as you learn how to animate, create a character, and then make an animation.

Your finished videos will be screened to the group and uploaded to YouTube via the GooRoo Animation Workshops channel to be shared with friends and family.

*This will be lots of fun!*

3 hour sessions at:

- 9.30am
- 1.30pm

University of Adelaide, North Tce Campus, Bragg Building
Meet at Gate 9 on Victoria Drive, opposite the Uni Footbridge, 15 minutes before the start.

Everyone, including adults, must wear enclosed shoes.

Members age 8 & over $25 child