Welcome to Science Update 2014
Number 11 for 2014

The National Youth Science Forum (NYSF) is a national program aimed at students entering year 12 to demonstrate the range of study and career options in the fields of science, technology, engineering and maths (STEM).

Beginning with a 12-day intensive residential program of hands-on and interactive activities in January, the NYSF also provides further opportunities for students throughout the final year of high school to understand just where a career in STEM could take them.

Established in partnership with Rotary, students undergo a selection process through their local Rotary club.

If you would like to learn more about the program please visit www.nysf.edu.au or contact damien.pearce@nysf.edu.au or phone Damien on 02 6125 2777.

Enquiring Minds is a documentary series that encourages students in late primary to early secondary school to develop their passion and hobbies into a career through higher education.

There is an opportunity for students to connect with three experts from the Enquiring Minds series on

**Wednesday 12 November 2014**

via a video conference where they will talk more about their careers and answer students questions live.

**Audience:** Suitable for Primary to Year 9 Students

**Cost:** Free

**Registrations:** Register on DART Connections using:

http://www.dartconnections.org.au and search for Bridges to Higher Education

or use the direct links provided in the program table.

Enquiries Caroline Taouk
Phone: (02) 9850 7398
Email: caroline.taouk@mq.edu.au
**Women in STEM**

*The twists and turns of a career in Science*

Professor Lesley Hughes, Macquarie University

After doing research on animals, Lesley became interested in the impacts of climate change on species and ecosystems and has been researching this topic ever since. Lesley talks about the many twists and turns of her career, and the exciting opportunities presented by a career in science.

*Women in Science - stepping out of the labcoat and into fins*

Sarah Collison, Macquarie University

Sarah discusses how her passion for Palaeobiology has opened up opportunities in her science career that take her outside the traditional laboratory and into the underwater world and beyond.

*Why maths? A mathematician's story*

Dr Leanne Rylands, University of Western Sydney

Being a leading mind on the Rubik's cube and other puzzles, Leanne will explain her career choices and also discuss some of the choices that other happy mathematicians have made.

*An astrophysicist's guide to exploring the universe*

Dr Vanessa Moss, University of Sydney

If you're considering becoming an explorer of the universe, Vanessa will give you an insight into how you might go about doing so and the different adventures you may have along the way.

Science Update now online at [http://issuu.com/science_newsletter](http://issuu.com/science_newsletter)

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Clickfest 2014
Video Conferencing Festival

ClickFest is an annual video conferencing festival run in November each year. ClickFest is an exciting initiative from education organisations across Australia. It highlights the diversity and scope of video conferences available to schools across Australia.

Sessions are delivered free or at reduced cost to schools, providing a great opportunity for teachers to give it a go.

Topics and programs will vary over the month long video conferencing festival to provide flexibility for teachers and students. Each day multiple sessions will be available on a variety of topics from content providers around Australia.

For more information visit

http://dartconnections.org.au/Excursions/search-for-excursions

type in “Clickfest” as an excursion keyword to see all the festivals events on offer!

Here are a few examples:

- Geology Rocks / Museum Secrets Revealed / Minibeast Magnified
- Questacon: Innovation (Yr 4-10)
- The Human Body / Creative Chemistry / 4 Slimes in 30 minutes
- Pirate School from Cyberspace Attack
PROFESSIONAL LEARNING WORKSHOP
Thursday 13/11/2014  FREE OF CHARGE

SCIENCE INQUIRY IN ACTION
Tools to increase student engagement, strengthen critical thinking skills and promote self-directed student exploration

WHO SHOULD ATTEND: Middle and secondary school teachers of science

WORKSHOP AIMS:
• build teacher knowledge and conceptual understandings in science
• enhance engagement with the Australian Curriculum: Science in schools
• raise teachers confidence in teaching science using an inquiry approach
• empower teachers to develop engaging, teaching and learning programs using quality resources

WORKSHOP DETAILS:
The Australian Curriculum: Science emphasises inquiry-based teaching and learning. Students need opportunities to develop practical and inquiry skills in order to engage with the world in a scientific way and to make sense of what they are learning. Hands-on investigations promote curiosity and engagement and provide opportunities for the type of discussion and questioning which develop understanding.

This workshop will look at science investigations in action. Teachers will be led through the elements of a scientific investigation using a Connected Learning Experience (CLE) developed by Science ASSIST. They will engage in hands-on activities using the CLEs that will inform their understanding of investigation types and how to implement them in their teaching program.

Teachers will be provided with explicit curriculum materials, investigations, planning tools and contemporary pedagogical strategies to enable them to successfully implement the Australian Curriculum: Science.

For further information visit: www.asta.edu.au

AUSTRALIAN PROFESSIONAL TEACHING STANDARDS:
Teachers will receive a certificate of attendance that details the Standards covered.

Venue: Prairiewood High School library
Prairievale Road
Wetherill Park NSW

Date / time: Thursday 13 November 2014
8.30am – 9.00 am registration
9.00am – 3.00 pm workshop
(a light lunch will be provided)

To register: Contact Denise Smith
0414 356 544 or
9725 5444 (Th & F)
Join us for a curriculum-focused revision lecture – covering the key topics from the Physics Stage 6 Syllabus for “Space”. Pre-work shall be provided in advance of the session, and you are strongly encouraged to complete this material with your students to get the most from the lecture.

This talk will explain the theory of gravitation, the key concepts of mass and weight, and the physics of how to launch a rocket! In addition there will be a focus on general scientific skills.

You and your students are invited to join Jason Drury from The University of Sydney for this exciting, and curriculum-dedicated, lecture.

The session will run on Wednesday 26th November 2014 11:00am - 12:00pm

There is no charge for schools to participate. Please register by completing the booking form at the bottom of the webpage:

http://www.caastro.org/bookings

You can learn more about our program at http://www.caastro.org/citc or by emailing us at: citc@caastro.org

Dial in number on your videoconference unit (VMR): 601056104. Note that due to limited space, we are restricted to the first 20 schools to sign up. Please ensure your email address is up to date, so that we can email you to confirm your booking. The session is a collaborative effort with support from CAASTRO and the NSW Department of Education and Communities.

Our speaker, Jason Drury, is a PhD student in astronomy at The University of Sydney, with an honours degree in physics. Jason uses NASA’s Kepler space telescope to study the interior of stars through a technique called asteroseismology.