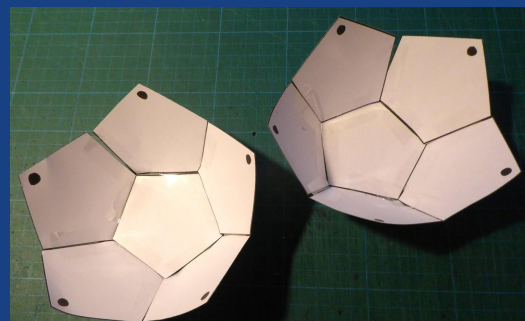


THE CREATIVE SCIENCE CENTRE

AUTUMN 2020

quarterly newsletter



IN THIS ISSUE

- **NEW online workshops and video conferencing**
- **Talks & workshop details**
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NEW SCIENCE OUTREACH THROUGH ONLINE WORKSHOPS

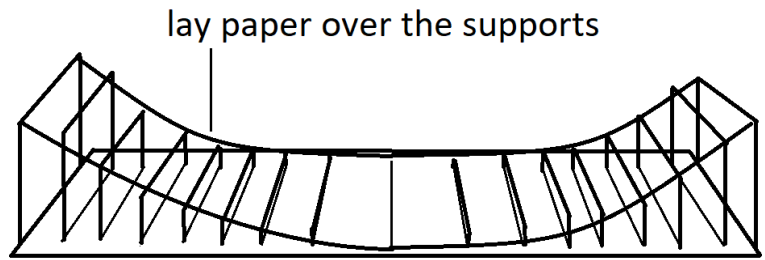
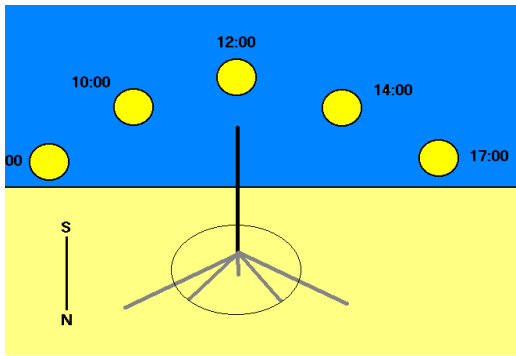
This year's changes have profoundly effected science communication.

In this newsletter we outline some exciting and innovative video conferencing talks & workshops that we can offer to schools and colleges.

Find details of all my talks & workshops on my website.

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* talks and workshops
* articles * projects * resources
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Parabolic Solar heater

We explore the science and mathematics of the parabola that will enable us to design our own solar heater providing us with free energy from the Sun. We will also show clips from the BBC Rough Science TV series where Jonathan built a solar furnace on location in the Caribbean.

Geodesic Hot air balloon

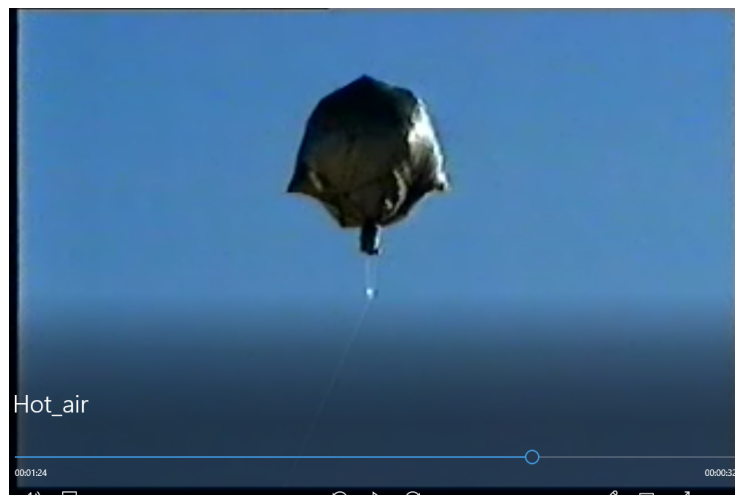
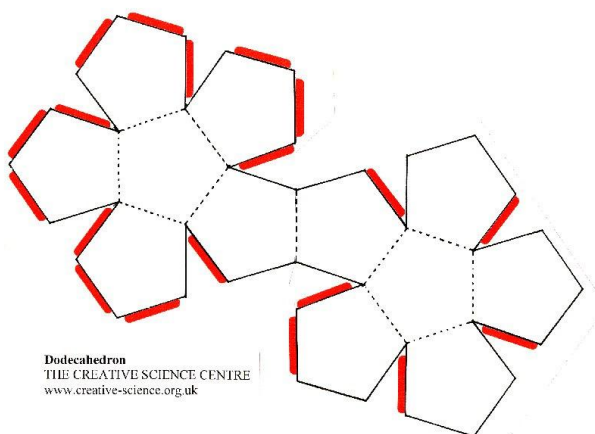
You don't need specialised gas burners or a huge silk balloon to take off up into the air - we will explore the mathematics, physics and engineering required to make your very own solar powered hot air balloon from easily available and cheap parts.

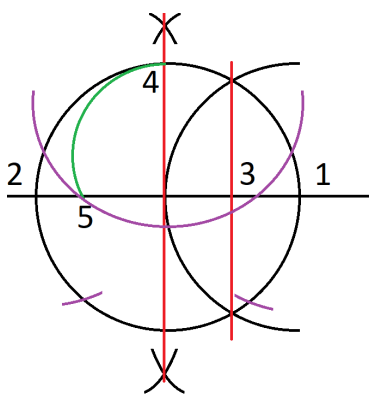
The Platonic Solids and Euler's Law

Over 2200 years ago the Greeks wrote about five shapes that had unique mathematical properties - the so-called Platonic solids. This is a workshop on patterns, symmetry and structure. It includes downloading nets to make up before or after the workshop as well as a icosahedral map of the world.

A Scientist's View of the Universe

This is a short tour of how we know what we know about our universe - including stars, planets, galaxies, atoms, molecules, waves and light.





Castaway Science

Ship-wrecked or cast-away on a deserted Island, could you use science to find out where on the Earth you were? We will explore the science behind discovering our latitude and longitude.

The Discovery of C60, Buckminsterfullerene

This is the story of the Nobel prize winning football shaped Buckyball molecule that has led to a revolution in nanotechnology. Note: C60 kits will need to be posted out to arrive before the workshop.

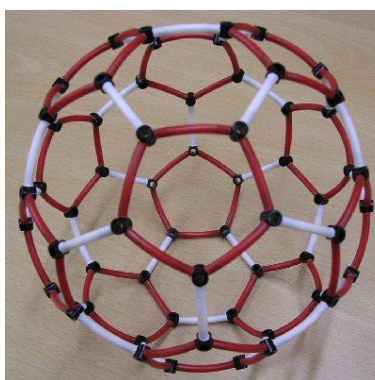
Electricity

What is electricity? how can we make it and how can we harness natural forces to power a generator? We explore all these and also the Pelton water wheel Jonathan made in the Colorado series of the BBC Rough Science TV series.

Radio

Radio has provided world-wide communication and even facilitated space exploration, TVs, mobile phones, Wi-Fi, blue tooth, walkie-talkies and countless other applications. We will go through the basics of radio wave transmission and reception with experiments and take you right up to date by sending you a live message through a Geostationary satellite!

Visit my web site for my other talks & workshops



Here's what people say about my work

"Absolutely fantastic! Our kids were buzzing all the way back to Newbiggin. As I mentioned it's more than just Science, it's about role models and aspirations and this visit provided all three and more."

Rob, Newbiggin Middle School, Science Christmas Lectures, Durham

"I had to write to express my appreciation of your commitment to bring Nobel Prize winning science to children's education ... my little son Tommy, 5 years old, came home thrilled and truly inspired by the workshop."

Vanessa, NAGC children

"I always try to tell them Chemistry is fun and you managed to convince quite a few - so thank you. Your enthusiasm is great and you work well with the [A-level] students - so please continue your great work promoting science."

Cheryl, Esher College & FSU

"Jonathan's workshops are enlightening, thought-provoking, inspiring and a most memorable highlight of each semester !" Cheryl, High School Teacher

"Jonathan is one of the most passionate, enthusiastic and resourceful science teachers our children have had." Iryna, London

"Thank you very much for your outstanding contribution to last week's Science in Action programme for GCSE students. ... I hope you could see for yourself that you had an attentive and appreciative audience - quite an achievement when you consider that there were eight hundred 14-16 year olds ... "

Radka, Training Partnership, Institute for Education

"It has been an ENORMOUS pleasure to accompany you around Sussex [a month of Brighton Science Festival workshops], many inspiring ideas and deep truths have emerged, so naturally as a result I'm more dazed and bedazzled by the world than I ever was. So it goes. I hope you enjoyed it. I know that 1000 kids did"

Richard Robinson, Brighton Science Festival

"Thank you very much for the Chemistry in the movies lecture [Hollywood Science and Some Science of Breaking Bad talks]. I know it went down well because I tried to stop a discussion on the amount of viable oxygen in a car tyre for a good 10 minutes before moving on to inter-molecular bonding! Anyway truly appreciated, thanks!"

John Luton, Varndean College

