

# CREATIVE SCIENCE WORKSHOPS

Blending science and drama, our Spellbinding Science workshops have proved an excellent way of creatively engaging students with science and supporting them in understanding the world (and worlds) around us. And they'll support you in preparing for, celebrating and reflecting on British Science Week: "The Best of British Science!" These inspirational workshops are suitable for all ages and abilities at KS3 and KS4 and are designed to build on pupils' existing knowledge, enhance progression and boost pupil motivation in science.



## GET IN TOUCH

To find out more or to book a workshop  
please contact us on 0151 708 8886  
or email [info@as-creatives.com](mailto:info@as-creatives.com)

You can also visit our website at [www.as-creatives.com](http://www.as-creatives.com)

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## Counting the Cost of Carbon

*Challenging students to analyse and report on the effects of disruptive, natural processes*

Most of us understand how the water cycle works – but how many of us can say we’ve a good knowledge of the carbon cycle? As the British scientist James Lovelock was one of the first to point out (backed up recently by the UN Climate Change report), it’s a cycle that’s increasingly out of balance. We produce more carbon dioxide than we can absorb, of course, and thus contribute to climate change. Differentiated for age, this workshop introduces pupils to the mechanics of the cycle – and invites them to consider (and dramatise) how the world might change if humanity doesn’t change its ways.

Exploring: chemical structures, deforestation, climate change.

Duration: 1½ – 2½ hours, depending on how many classes.

Suitable For: up to 30 students at a time.

## Interplanetary Tours

*A fast-paced exploration of our solar system in which students learn and teach each other key facts*

From Neil Armstrong’s first steps on the moon to the photographs of alien landscapes sent back by “Curiosity”, the Mars Rover, since it landed on the planet in August, we’re all entranced by our neighbours in the solar system. Taking this one step further, this intriguing workshop asks pupils to imagine the day when, despite the ongoing dangers, interplanetary tours are possible. Informed by the discoveries of such spaceware as Voyager, Hubble and Cassini, they’ll plan, prepare and present short plays exploring the problems posed by visiting the sulphurous volcanoes of Venus, the gaseous storms of Saturn or the icy plains of Pluto. Just remember one thing: “In space, no-one can hear you scream ...”

Exploring: the solar system, orbits, gravity.

Duration: 1 – 1½ hours, depending on how many classes.

Suitable For: up to 30 students at a time.



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## May the Force Be With You!

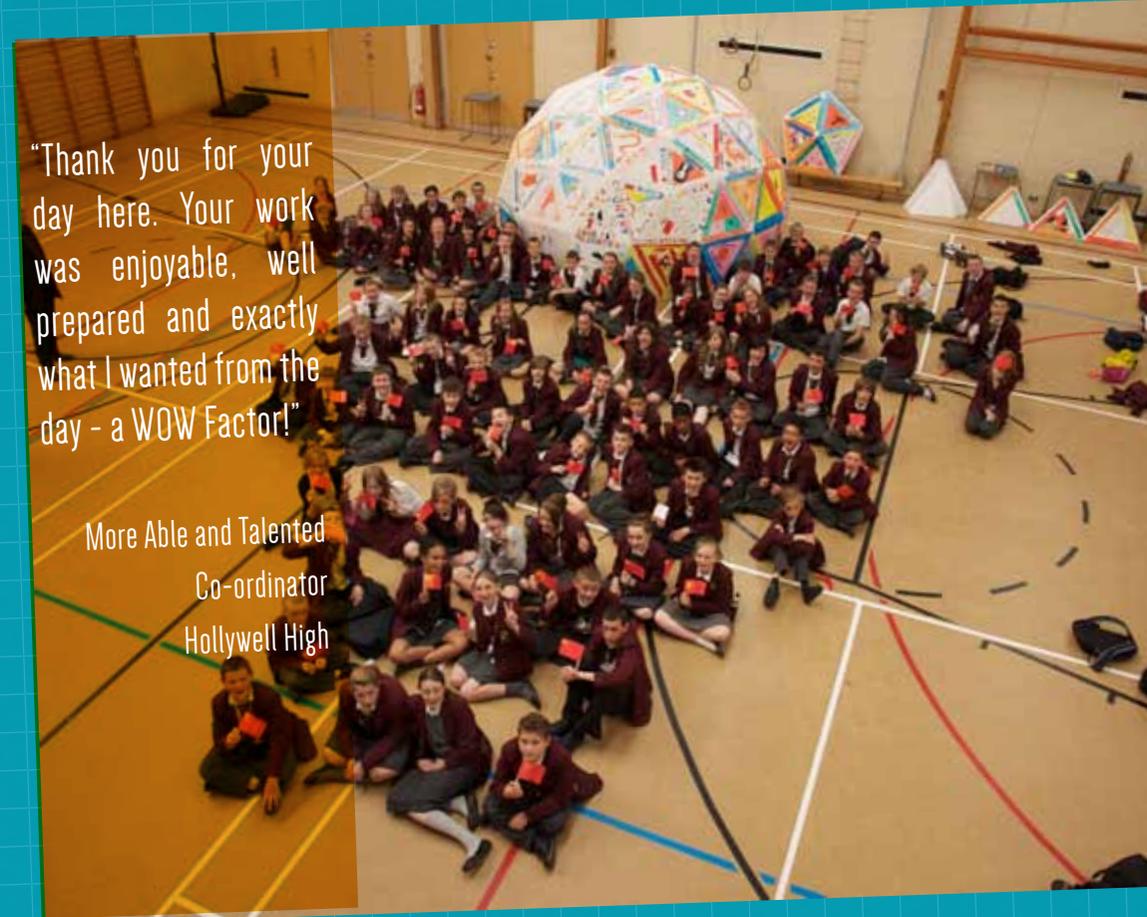
*A lively and busy workshop, bringing to life how forces affect every aspect of our being*

Sir Isaac Newton's 1687 discovery of gravity changed forever the way we think about the world – and this magical programme brings to life some of the invisible forces that surround and define us. By the end of the session, pupils will have had opportunities to recall and recollect key vocabulary around "forces", use "forces" vocabulary within interactive games, plan, prepare and present short dramas exploring such different forces as gravity, centrifugalism and centripetalism, use "forces" vocabulary within their presentations –and remember that science is fun!

Exploring: gravity, electromagnetism, centrifugal and centripetal forces.

Duration: 1½ – 2½ hours, depending on how many classes.

Suitable For: up to 30 students at a time.



"Thank you for your day here. Your work was enjoyable, well prepared and exactly what I wanted from the day - a WOW Factor!"

More Able and Talented  
Co-ordinator  
Hollywell High



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## Moonwalking

*Investigating the history, properties and impacts of our nearest neighbour – both scientifically and culturally*

The moon of course is the earth's only natural satellite – and affects every aspect of life. This busy and interactive workshop sees pupils learning about the different phases of the moon and our relationship with it – from its place in North American mythology, to the Apollo programmes to the proposal for a British-led moonbase by 2013. The workshop will also provide scope to explore how the moon affects life on earth, from the movement of the tides to the impacts of eclipses.

Exploring: satellites, orbits, lunar cycle, gravity and other forces.

Duration: 1½ – 2½ hours, depending on how many classes.

Suitable For: up to 30 students at a time.

“as creatives are like a breath of fresh air – livening up teachers and students with fun and innovative methods of learning”.

Head of Science, Holy Cross School, Bolton

## The Tomorrow People

*Reverse-engineering some of science's greatest discoveries – and harnessing this understanding to design a range of new inventions*

From Tim Berners-Lee's invention of the internet to James Dyson's eponymous cleaner to Trevor Baylis's clockwork radio, the inventors of today spot gaps in the market – and fill them. As a rule, inventing is process-driven rather than haphazard – as this whole-day workshop makes clear. Working in small groups, and supported by a range of idea-generating scaffolds, students will come up with a whole host of inventions – then select one to advertise.

In a series of highly interactive exercises, they'll bounce around budgets and business plans, ponder over packaging and manufacture marketing models. They'll also, of course, devise and film short adverts for their products and we'll edit these and return them to you as DVDs – together with certificates for the team with the best overall approach.

Exploring: design processes, the science economy, the role of science in 21st century life.

Duration: whole day.

Suitable For: up to 30 students at a time.



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## Exploring Evolution

*Analysing animal adaptations and exploring the connections between creatures and their habitats*

Most of us take Darwin's ideas of natural selection for granted nowadays – but they caused a right old rumpus when this British scientist finally plucked up the courage to publish them in 1859. This workshop introduces children to a design process in which they'll be asked to imagine what sort of creatures might have evolved to survive in some particularly challenging habitats. They'll then devise short "documentaries" that introduce these newly discovered animals to their audiences – and support each other through peer evaluation.

Exploring: evolutionary processes, natural selection, adaptation, habitats, design processes.

Duration: 1½ – 2½ hours, depending on how many classes.

Suitable For: up to 30 students at a time.

## Expect the Unexpected!

*Investigating some of the scientific happy accidents that have resulted in household names - and the power of science to surprise!*

Most of the inventions that have improved our lives were planned – but more than a few were complete accidents! This workshop takes an interactive and fun approach to introducing children to some of these, supporting them in playing out the roles played by observation and creative thinking in translating accidents into inventions from postits to penicillin to pacemakers! To cement their learning, they'll create short raps, replete with scientific language – which we'll record and give back to you on CDs!

Exploring: unexpected discoveries, scientific breakthroughs, cross-connectivity.

Duration: 1½ – 2½ hours, depending on how many classes.

Suitable For: up to 30 students at a time.

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## Get in touch

If you wish to discuss how these workshops could be delivered in your school, to meet your specific requirements, please don't hesitate to get in touch with us on 0151 708 8886 or email our [info@as-creatives.com](mailto:info@as-creatives.com).

You can also find out more about us and our work with schools (including science case studies) by visiting our website [www.as-creatives.com](http://www.as-creatives.com)

## Why us?

These popular programmes are currently being delivered in a large number of schools across the UK. They can be adapted to meet the needs of a wide range of students – from high achievers to those who are struggling.

## Key Benefits:

- An exciting, imaginative way for students to practise their science skills.
- Programmes that complement and support schools' drives to raise standards.
- A chance for you and your colleagues to experience some creative approaches to science that can be replicated in the classroom the very next day.
- A great way to enhance the science curriculum – both all year round and to celebrate such seasonal events as British Science Week and World Space Week.
- A fantastic way to engage students during the GCSE revision period



"The levels of engagement and behaviour have been fantastic. These approaches will really help us!"

Senior Leadership Team  
Broughton Hall

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