

# workshops for KS3 - KS4

as creatives' Creative Science workshops provide an excellent way of engaging pupils with science and supporting them in understanding the world (and worlds) around us..

Engaging and experiential in style and tone, these exciting programmes provide an amazing way of promoting science, cementing pupils' subject knowledge, explaining difficult concepts and introducing new content. Amongst the many options you can choose from are...



**CSI: Periodic Table** 

**★** Expect the Unexpected

★ Messages from Space

★ STEM Geodesic Domes

for SCIENCE

as creatives' immersive approaches engage even the most reluctant scientists, offering pupils fun and exciting environments in which to practise their skills.







Each year we deliver our Creative Science workshops to hundreds of schools across the UK and beyond . You can view the full range of programmes on offer at www.as-creatives.com, or get in touch with us via email at info@as-creatives.com or call our office on 0151 708 8886.









### **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 sent back by Juno on its historic and ongoing mission to Jupiter, we're all entranced by our neighbours in the solar system. And we'll know even more when Bruno, the British-built rover, lands on Mars in 2018. Taking things one step further, this intriguing workshop asks pupils to imagine the day when interplanetary tours are possible. Informed by the endeavours of such new space actors as Virgin Galactic and Space X, 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, noone can hear you scream ..."

**Exploring:** features of stars, planets, dwarf planets, moons, asteroids and comets; impacts of gravity; developments in space technology; effects of space flight on humans.

## **Messages from Space**

A unique way to explore both Poetry and Space at the same time!

After a warm-up activity exploring some of the characteristics of a range of inhabitants of the universe (including stars and comets as well as planets and black holes), pupils will be introduced to Clerihews - structured but flexible descriptive poems. Armed with age-differentiated, beautifully illustrated FactFiles, they'll then craft their own Cosmic Clerihews, as full of scientific fact as a vacuum is with nothing! Longer workshops will also include performance tips as they rehearse delivering their Messages from Space!

**Exploring:** characteristics of planets, stars, comets and black holes; authorial voice, poetic structures, rhyme, rhythm and tone.pace.

# The Story of Flight

The drama of the science behind our conquest of the skies

Discover how humankind left the earth's surface for the skies and then space — and ultimately the stars — in this thrilling and action-packed drama-based workshop. Starting with the Icarus myth, students will explore, learn about and teach each other some of the scientific and technological landmarks in The Story of Flight, including Leonardo's musings on helicopters, the Montgolfier brothers' experiments with balloons, Orville and Wilbur Wright's development of the aeroplane, Frank Whittle's work on the jet engine and Neil Armstrong's first steps on the moon.

Exploring: aerodynamics, forces (gravity, friction and air resistance), pressure.

Our Creative Science workshops are always rooted in real and concrete science but take approaches from the world of the arts. We love delivering these workshops in schools across the UK and they come highly recommended from teachers across the UK. You can view lots of lovely feedback on our website!



**SPACE** 

Week





#### CSI: Periodic Table

A challenging mystery to engage your students with chemistry!

One of the deadliest stable chemical elements, arsenic was also one of the first to be discovered - way back in 1250. But it's the structure of the Periodic Table itself that students will need to unmask the killer of one of Britain's brightest scientists. They'll take part in a number of activities exploring the properties of particular elements or elemental families, each releasing a chemistry-related clue eliminating one of the possible criminals. Once they're agreed on a name, they'll have one final hurdle to overcome – to use all the evidence they've gleaned in determining exactly how the Professor was killed ...

**Exploring:** history and structure of the Periodic Table, atomic structure, properties of elements and elemental families, valencies and bonding.

CSI: MATHS
programmes
also
available!

#### **CSI: Forces**

How do different forces operate – and what do they actually do?

CSI: Forces sets your pupils a problem – to use their knowledge and understanding of forces in identifying which of six suspects sabotaged the new Jupiter VII space rocket. They'll take part in a number of activities, each releasing a force-related clue eliminating one of the possible criminals – until the Police Force becomes the most important force, as the miscreant is hauled before justice ...

**Exploring:** gravity, friction, upthrust, centrifugalism, centripetalism, magnestism.

#### **STEM Geodesic Domes**

An exciting opportunity for students to build a 2m high Geodesic Dome

What connects science, maths, engineering space – and sport? Geodesity, of course! And our Geodesic Dome programmes offer students fantastic opportunities to cement their understanding of specific curriculum areas – and to celebrate and share their learning in a unique, eye-catching and inspiring way.

After recalling their learning in a creative manner, students will work to a template in using it to illustrate the 105 triangular panels that make up our Geodesic Domes. They'll then be guided through a process that allows them to fit the triangles together to make hexagons and pentagons – and then to piece these together to construct the 2m high dome.

**Exploring (in addition to your curriculum area):** chemical structures, engineering forces, properties of 2D shapes.

We deliver our workshops all year round but they are particularly popular during key seasonal events such as World Space Week (October) and British Science Week (March).











# creatives think differently

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"The main reason for the workshop was to engage the students and hopefully to develop more of an interest in science. The students definitely did this!"

"as creatives are like a breath of fresh air - livening up teachers and students with fun and innovative methods of learning. The planning and preparation that goes on behind the scenes results in a thoroughly professional delivery in which all participants are valued and respected."

Holy Cross School





