In an increasingly complex world, maths is assuming an increasingly important role — so it's vital that young people are comfortable with manipulating numbers, understand shapes and are confident about problem solving. By placing students in fictional worlds, our hugely successful Creative Maths programmes for Key Stages 3 and 4 are designed to support the valuable work that you do by reminding them that maths is all around us and by offering them opportunities to practise their skills in exciting, imaginative and interactive ways.



#### **GET IN TOUCH**

To find out more or to book a workshop please contact us on 0151 708 8886 or email Jackson Kavanagh, at j.kavanagh@as-creatives.com
You can also visit our website at www.as-creatives.com

**CSI: Maths** 

A challenging mystery to engage your students and get them thinking logically

Combining football, murder mysteries and problem solving, CSI: Maths is one of the most popular programmes, offering students an opportunity to apply their skills and understanding of shape and measurement in a unique environment.

If it hadn't been for the quick thinking of one of her teammates, Michaela Maths, one of Britain's most promising young athletes, would be dead — slain by an unseen hand! The police are baffled by the crime and want the pupils' help in solving it. Having been introduced to the crime scene, the suspects and their possible motives, students work in teams to tackle a series of mathematical challenges. Each will lead to the elimination of a suspect, until, if all the calculations are correct, the criminal is unmasked.

Exploring: recognition and application of number patterns; mental and written calculations (additive and multiplicative reasoning); manipulation of 2D shapes; calculating areas and/or volumes; presenting and interpreting data.

Duration:  $1 - 1\frac{1}{2}$  hours, depending on how many classes

Suitable For: up to 30 students at a time

#### Whole School: The Time Twist

A fun and practical investigation that will challenge students to apply their numeracy skills

Professor Pythagoras needs help — and he needs it now!
As a result of his meddling with the Large Hadron Collider, you see, time is about to be rewritten. And if King Harold wins the Battle of Hastings, the whole of history will change — which might mean that your school will blink out of existence! By working as a human computer and tackling a series of engaging mathematical challenges, your students will be able to provide him with the data he needs to put things right. Although there's always a chance that a knock-on effect might mean that King Henry VIII doesn't fall in love with Anne Boleyn and stays with Katherine of Aragon until the end of his days...

Exploring (according to age): all four number operations, fractions, decimals, percentages, number patterns, elimination, 2D and 3D shapes, measurement, time, positional language, interpreting data, problem solving

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

Suitable For: up to 30 students at a time









#### **Number Patterns: The Bunker**

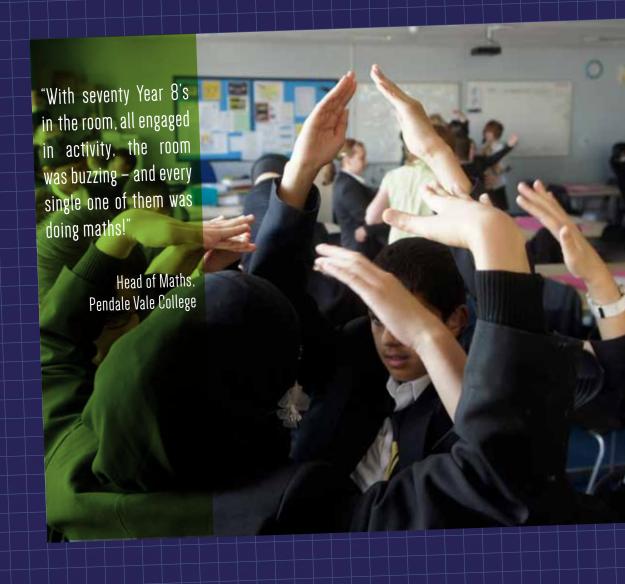
A fast-paced workshop contextualising sequencing and making connections between maths and other subjects

It is 1944 – and plans for the Allied invasion of France (Operation Overlord) are well under way. But, suspecting that the complex Enigma Code has been broken, the Nazis have been experimenting with simpler cryptography. There is no code book – the system relies on people being able to spot number patterns and act accordingly. This fun and interactive 90 – 120 minute workshop engages students in cracking a series of ever more complex codes, before challenging them to create their own. And, reminding us of some of the more playful ways that those at Bletchley Park worked with numbers, they'll also be asked to write some Fibonacci Poetry!

Exploring: additive and multiplicative reasoning, number patterns, measurement, time, positional language, interpreting data, problem solving

Duration:  $1 - 1\frac{1}{2}$  hours, depending on how many classes

Suitable For: up to 30 students at a time









#### **Trading Games**

A high energy activity that challenges students' understanding of shape, probes concepts of "value" and asks them to cope with the unexpected!

Fast, furious and fantastically engaging, our popular Trading Game workshops can be played with between 15 and 90 participants. We have adapted them to serve a number of objectives (from exploring economic inequalities to investigating business, from developing enterprise skills to practicing mathematical skills and from considering team dynamics to analysing patterns) — and they can exist as either stand-alone activities or as part of wider programmes.

Exploring: tessellation, changing values, problem solving.

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

Suitable For: up to 60 students at a time

"CSI: Maths was fun but challenging – exciting, active, different – and really enjoyable! We learnt new things, it made us think – and everyone was involved. It was amazing!"

Year 7 Pupils, Weatherhead Media Arts College

#### The Maths of Art – or the Art of Maths?

Making overt ways that artists over the ages have used mathematical reasoning in creating their works

Hosted by art historian Professor Parallelogram, this unique and budget-friendly programme offers opportunities for up to four classes to participate in an Art and Maths Treasure Hunt over the course of a single day. After warming up, students will work in threes to negotiate the Trail. Each maths-based clue will lead them to an image of a work of art – where they'll need to answer a question before being rewarded with a further clue. A tie-break will almost certainly be required to determine the winning team – and both problem solving and collective memory will be at the fore!

Exploring: 2D and 3D shapes, tessellation, number patterns, spatial reasoning

Duration: 1 - 1½ hours, depending on how many classes

@ascreatives

Suitable For: up to 30 students at a time









#### 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 Maths leader - Jackson Kavanagh at; j.kavanagh@as-creatives.com.

You can also find out more about us and our work with schools (including case studies) by visiting our website www.as-creatives.

# "Students and staff alike really enjoyed the workshops you provided, finding them engaging and stimulating – as well as 'challenging' and 'not that easy'!" Deputy Headteacher. Whitmore High School www www.as-creatives.com info@as-creatives.com

#### Why us?

Experienced by more than 8,000 children and young people over the last two years, 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 pupils – from high achievers to those who are struggling.

#### **Key Benefits:**

- An exciting, imaginative way for students to practise their maths skills.
- Programmes that complement and support schools' drives to raise standards.
- A chance for you and your colleagues to experience some creative approaches to maths that can be replicated in the classroom the very next day.
- A great way to enhance the maths curriculum both all year round and to celebrate such seasonal events as World Maths Day 2015.
- A fantastic way to engage students during the GCSE revision period



