



Independent
Association of
Prep Schools

Q09: Maths: problem solving and mathematics – developing skills for lifelong learners

Date Friday 3 February 2023

Venue Ambassadors Bloomsbury Hotel, London WC1H 0HX

Cost £229 (non IAPS members - £329)

We are excited to be hosting an event where we delve into the world of problem solving and puzzles and explore their place in the maths curriculum. Over the course of the day we will explore a variety of ways to enrich your maths curriculum in ways that engage your pupils and develop their mathematical skills. We will also consider how to connect maths with other subjects and develop links with maths in the real world. You will have lots of opportunities to try out activities and see how they can help support a love of maths and problem solving in your pupils.

Audience

Heads of maths and teachers of maths at KS2/KS3

Objectives

The purpose of this course is to promote the benefits of having problem solving at the heart of your curriculum. Problem solving is an essential skill for all learners and can develop desirable skills such as creativity, curiosity and decision-making. Good problem solvers are successful whether working independently or collaboratively. The conference is aimed at educators and leaders who want to embed problem solving skills in their classrooms and departments and inspire their pupils to embrace whatever challenges might come their way.

Course Director

Marion Wright, IAPS maths subject advisor

Presenters

Alex Bellos; Rob Eastaway; Dave Godfrey

Programme: Friday 3 February 2023

1000 Registration and coffee

1030 Welcome and introduction

1045 Session 1 – how to use puzzles; and mathematical conundrums to engage your learners and help them to develop their problem-solving skills and higher-order thinking

1215 Lunch

1300 Session 2 – when maths meets creativity

1430 Break

1445 Session 3 – this session will explore the use of story from different angles reflecting his research, experience and passions

1545 Plenary and evaluation

1600 Course ends

Session 1

Alex Bellos: Alex writes the infamous Monday maths puzzle for *The Guardian*. He is also the author of the popular maths bestsellers *Alex's Adventures in Numberland* and *Alex Through the Looking-Glass* and four mathematical puzzle books: *Can You Solve My Problems*, *Puzzle Ninja*, *So You Think You've Got Problems* and *The Language Lover's Puzzle Book*.

Alex will be presenting a session on how to use puzzles; and mathematical conundrums to engage your learners and help them to develop their problem-solving skills and higher-order thinking.

Session 2

Rob Eastaway: Rob is active in the popularisation of mathematics and was awarded the Zeeman medal in 2017 for excellence in the promotion of maths. He is best known for his books, including the bestselling *Why Do Buses Come in Threes?* and *Maths for Mums and Dads*. In Rob's session, we explore when maths meets creativity.

For most people, the expression 'creative maths' sounds like a contradiction in terms. But real maths *is* creative – it's about discovery, serendipity and surprise. In this talk, Rob gives some of his favourite examples, many of which can be used in the classroom.

Session 3

Dave Godfrey: Dave is an experienced KS2 teacher, author, songwriter, presenter, mathematics trainer and consultant. He is the creator of the Number Fun Portal – an online tool that uses visualisation, animation, story, song and humour to help students understand, practice and remember mathematical concepts.

Dave's session will explore the use of story from different angles reflecting his research, experience and passions. Dave will explore what research has to say about the use of story in mathematics. He will also consider how story and story characters can help children understand and master abstract concepts as well as learn, remember and apply a range of mental strategies.

Terms and conditions of cancellation: If a delegate cancels his or her application up to and including 4 weeks prior to the date a refund of 75% of the fee will be given; 50% of the fee will be refunded up to and including 2 weeks prior to the date; thereafter, IAPS regrets that no refund can be made.

We will do all we can to ensure our courses go ahead as planned. Occasionally, for reasons outside our control and particularly in the uncertain times we find ourselves in, courses may be cancelled, or courses that were due to take place in person may have to take place online. While a refund of the course fee will be given where courses are cancelled by us, we will not be able to take responsibility for any expenses incurred by you in advance, such as travel or accommodation costs which are no longer required due to the cancellation of a course or it being changed to a remote format. We do hope you will understand.

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Insurance: IAPS regrets that it cannot accept liability for loss or damage however caused to the personal property of any person attending this or any other event organised under the auspices of the Association.