# Coutents Juneary Coutents



### 03

Focus on... AI and digital learning

### 04

Using generative artificial intelligence to plan and resource primary science

Sam Lovatt and Alex Sinclair researched using ChatGPT to provide lesson ideas

## 08

# Powering up primary science with the BBC micro:bit

**Dan Breeze** explores how the BBC micro:bit can equip young scientists with essential data-collection skills

## 12

### The day robots invaded class 4A

Student **Malcolm Kazimi** worked in a local primary school on his university's Robogals initiative

## 15

# Moss Safari: Unlocking the microscopic world for young explorers

Andrew Chandler-Grevatt discusses how a Moss Safari enriches the primary science curriculum and fosters a love of microscopes 19

# Linking indigenous knowledge to climate change using digital tracking

Student teachers learn about climate change by launching their own miniature wooden boats as **Robert Collins** and **Jane Essex** explain



# Exploring river and natural flood management using Minecraft

Laura Hobbs, Phoebe Clayson-Lavelle and Sarah Behenna discuss two recent Minecraft-based projects on flood management



# Learning about plastic pollution and reduction using a serious game

A fun and engaging way to learn about an environmental issue is offered by **Annika Hoffman**, **Kaezuko Kamakuere** and **Tim Hartelt** 

**29** 

Reviews

**32** 

**Tribute to Martin Hollins** 







Cover credit: Gorodenkoff/Shutterstock

### **Editor**

Robert Collins @PriSciJournal

#### **Editorial Board**

#### **Paul Chambers**

Senior Lecturer, University of Strathclyde

Michael Good (Reviews editor) Y6 teacher, Stoneferry Primary School, Hull

Jenny Hayward Lecturer, University College London (IOE)

Leigh Hoath
Professor of Science Education, Leeds
Trinity University
@LTUPGCE @LTUEducationNet

Verity Jones Associate Professor, University of the West of England @VerityJones Edu

Melissa Loughran STEM Lead, St Edward's CE Academy, Leek

@Melectra

Andy Markwick, Primary Science Lead, University College London (IOE)

John McCullagh

Senior Lecturer, Stranmillis University College, Belfast

Elaine Stockdale

Science Lead, Tongwynlais Primary School, Cardiff @ClassMerlin2

**Paul Tyler** 

Kirkhill Primary School, Topical Science Updates @Glazgow

Executive Editor Helen Johnson ASE editorial contact Will Hoole

Design/Page Makeup Karen Dyer

### **Contributions and comments:**

Please send as an email attachment to: willhoole@ase.org.uk

*Primary Science* is the primary journal of the ASE and is published three times a year. The ideas and opinions expressed in this journal are not necessarily those of the ASE.

### **Writing for Primary Science**

Primary Science publishes articles on all aspects of primary science education, including early years, and we welcome articles that:

- support effective classroom practice in teaching, learning and assessing science;
- · give practical classroom ideas;
- · interpret (rather than simply present) research;
- address issues relating to primary science education;
- comment on controversial articles, issues and debates;
- challenge teachers' thinking about important changes.

Short contributions are very welcome, including notices, letters and short responses to other articles. It may help you if you read one or two articles in *Primary Science* before beginning your own.

The Editor is very happy to advise and support new authors.

Contact: pseditor@ase.org.uk

Detailed guidelines for writing for the journal are available on the ASE website: www.ase.org.uk/submission-guidelines

Additional images © Shutterstock: Artdesign.13 p.7, Made by Rauf p.14, Pasotteo p.18, Katerina Tyshkovskaya p.29. © Better Images of AI: Elise Racine & The Bigger Picture p.3, Kathryn Conrad p.4.

#### **Future themes**

Generally each issue of *Primary Science* focuses on a theme, but also includes other articles on a range of topics, so if you have something to write about that is not on a theme or responds to a theme already covered, don't be deterred. All contributions are very welcome. Shorter articles are particularly welcome.

Issue 186 (September 2025) Climate change and sustainable practices (deadline for submissions 2 June 2025)

**Issue 187 (January 2026) Decolonising the curriculum** (deadline for submissions 6 October 2025)

### **Health & Safety**

Reasonable care has been taken to ensure that articles in this journal do not suggest practices that might be dangerous, and safety warnings are given where appropriate. However, the ASE has not tested the activities suggested and can therefore give no guarantee of safety. For further advice on health and safety matters in primary science education see Be safe! Health and safety in school science and technology for teachers of 3- to 12-year-olds (4th edition, ASE, 2011).





ASSOCIATION FOR SCIENCE EDUCATION

#### Contact

The Association for Science Education 483 Green Lanes, London N13 4BS T: 01707 283000

info@ase.org.uk

X @theASE

www.ase.org.uk

Advertising: www.ase.org.uk/advertising

### Copyright

© 2025, The Association for Science Education. The ASE is pleased to allow schools to copy articles from this journal for their own internal school use. Requests for reproduction for any other purpose should be made in writing to the ASE.

ISSN 0269-2465

Printed by The Manson Group, St Albans

FSC Logo