

Brought to you by **Dr Chris Hamlett**,
Discover Materials National Outreach Officer

Welcome back to a new school year.

We hope that you had a great Summer break and are ready for the Autumn term.

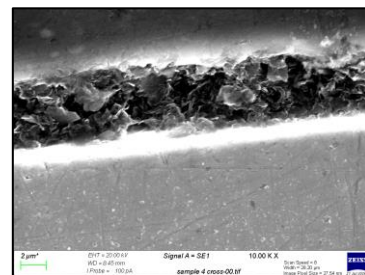
This newsletter features two pieces of work that we have cocreated with school pupils.

Our Ambassadors engaged KS3 pupils to produce a suite of videos and activities in the *Mapping Materials Science and Engineering* project. The second is a video created by four year 12 pupils made as part of an In2STEM placement. These resources can be found overleaf.

What is it?

Here is an image taken using an electron microscope..

But what is it of?



Awareness weeks in the Autumn Term

From: <https://www.awarenessdays.com/awareness-days-calendar/category/uk-awareness-day/>

i) Recycle week - September 16th – 22nd

This is a great opportunity to think about the lifecycle of materials and how we can use materials in a more sustainable way.



We developed a booklet exploring circular economies and bioplastics which includes a guide to making your own bioplastics:

<https://discovermaterials.co.uk/news/cocobiomater-bag/>

ii) About Chocolate Week - October 14th – 20th



Smashing chocolate bars is a great way for learning about mechanical properties.

Our ambassadors can bring our chocolate impact testers into your school to carry out experiments (please contact us to book a visit) <https://www.youtube.com/watch?v=OU8JQa0wQzg>

You could explore the mechanical properties of different chocolate bars in a chocolate selection box: <https://www.youtube.com/watch?v=n1wv9zzx4Ac&list=PLyI3ubsSP6pWytptgWUnbjSCWZULax-AC&index=5>

iii) Twelve Days of Christmas - 25th December – 6th January

Starting on 25th December we will be releasing a video a day each tenuously linking Materials Science to each of the twelve days of Christmas. Here are the videos from the past two years:

2025-26

<https://youtube.com/playlist?list=PLyI3ubsSP6pW56kl9x0YtQ5EOMLXPuv2U&si=G2MelleGdeuTqZel>

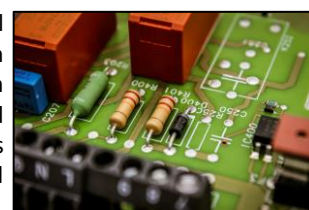
2024-25

<https://youtube.com/playlist?list=PLyI3ubsSP6pUkFdx5ScigNY4-mUkZxB30&si=emXGxYu81OPkF0Q7>



Materials Science in the News

Researchers at Cornell University have grown nanowires of niobium arsenide (NbAs) that could be used to replace copper as interconnects in advanced electronic circuits.



This is due to nanostructures of NbAs being much more electrically conductive than bulk NbAs unlike copper nanostructures whose electrical conductivity decreases compared to bulk copper.

Link to original article: <https://www.science.org/doi/10.1126/science.adx3027>

Discover Materials Ambassadors

Discover Materials Ambassadors are Materials Scientists keen to inspire the next generation.

An individual Ambassador is not highlighted this term. Instead, we would like to thank all the Ambassadors who help at events and go deliver sessions in schools.



- Check out what our **Ambassadors** do and how they got into materials science by following this link (and get in touch if you want an Ambassador to visit your school and we will try to arrange a visit):

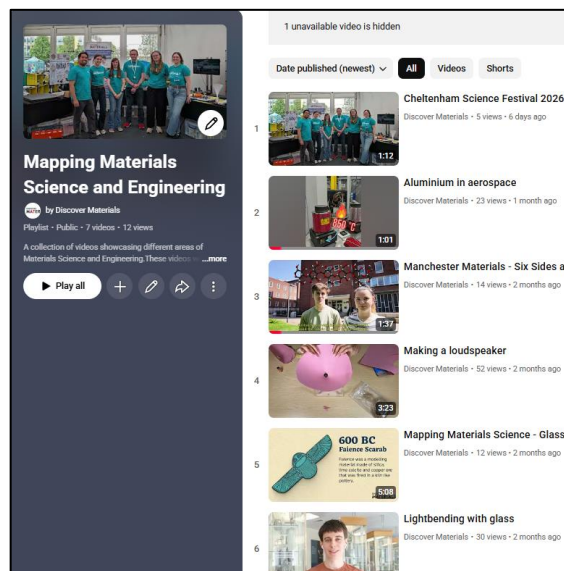
<https://discovermaterials.co.uk/discover-materials-ambassadors/>

Resources for Schools

This issue's featured resource: Mapping Materials Science and Engineering

With funding from the Royal Academy of Engineering's *Ingenious Awards* some of our Discover Materials Ambassadors ran focus groups in schools received filmmaking and animation training.

They then created activities and videos to appeal to the pupils and worked with an artist who created a trilogy of posters with all resources being freely available on our website.



Link to this resource:

<https://discovermaterials.co.uk/resource/mapping-materials-science-and-engineering/>

Careers resource

This month's featured **careers** resource:

University Open Days

To find out more about the MSE courses at our partner universities, and to book onto an open day, please follow the link below for more information.

2026 Open Days at Discover Materials partner universities	
University of Birmingham	10th October, 14th November
University of Cambridge	11th September
Imperial College London	11th and 12th September
University of Leeds	3rd and 17th October
The University of Manchester	3rd and 10th October (in person), 16th - 20th November (virtual)
University of Oxford	18th September
Queen Mary University of London	10th October
University of Sheffield	5th September, 17th October, 21st November
Swansea University	17th October and 7th November

- **Open Day info:** <https://discovermaterials.co.uk/open-days-at-discover-materials-partner-universities/>
- **MSE UCAS page:** <https://www.ucas.com/explore/subjects/materials-science-and-engineering>

Upcoming Events...

- **Learning Resources Hub @ Wiltshire Council STEAM2026, 10th November, Trowbridge**

1-day STEAM festival for primary school pupils

- **Telford and Shropshire Manufacturing Festival 24th November, Telford Utd football ground**

One day STEM day for secondary school pupils to explore range of employers and careers in the manufacturing centre

<https://www.ukmanufacturingfestivals.co.uk/#latest-news>

- **ASE Conference 7th – 9th January, University of Northampton**

A three-day conference for primary and secondary teachers, technicians and other science educators

<https://www.ase.org.uk/events/2027-ase-annual-conference-shaping-future-of-science-education-together>

For more info on these, and other events, visit our Events page: <https://discovermaterials.co.uk/events/>

What is it?

It is a **wok**!

During the summer holidays we hosted four students on the In2STEM programmes on investigated how seasoning a wok changes its surface.



Check out the video they made here: <https://www.youtube.com/watch?v=-MF6SC8C4PM>



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