



<i>Topic</i>	<i>Key question to ask our MCA students</i>	<i>Reading material</i>
Year 7		
Science fundamentals	What is a control variable in an experiment and why is it important to have them?	https://www.sciencejournalforkids.org/articles/lesson-ideas/meet-a-scientist-anne-draelos/
Matter	How are particles arranged in solids, liquids and gases?	https://newsforkids.net/articles/2021/03/02/london-sized-iceberg-breaks-free-in-antarctica/
Manchester Scientists	What are the parts of an atom?	https://theday.co.uk/the-machine-that-could-revolutionise-physics/
Humans	Why do we need to eat and breathe?	https://theday.co.uk/the-edible-insects-coming-to-a-shop-near-you/
Movement in Manchester	How could you find the average speed of a car driving down Rochdale road?	https://www.dailymail.co.uk/sciencetech/article-10767623/Robo-car-breaks-world-speed-record-Fully-autonomous-PoliMOVE-car-reaches-incredible-192-2mph.html
Mixtures and Separation	How can we separate a mixture of salt, sand and water?	https://theday.co.uk/scientists-make-fresh-water-out-of-thin-air/
Cells	Why are cells so important?	https://theday.co.uk/endangered-horse-cloned-from-frozen-cells/
Density and pressure	Why do climbers experience physical problems when climbing at high altitude?	https://theday.co.uk/savage-mountain-finally-beaten-by-teamwork/
Atoms and the Periodic Table	Everything is made up of atoms so how do we get different chemicals and substances?	https://theday.co.uk/the-great-hydrogen-revolution-gathers-pace/
Energy	How does burning fossil fuels effect our planet?	https://theday.co.uk/world-can-avoid-climate-disaster-says-un/
Biological reactions	Why do plants need to photosynthesise and respire?	https://theday.co.uk/plants-are-intelligent-too-say-scientists/
Reproduction	Why do we look different from our parents?	https://www.softschools.com/language_arts/reading_comprehension/science/490/human_reproduction/
Year 8		
Periodic table	What is the periodic table and why is it important?	https://newsforkids.net/fastfacts/atoms-and-molecules/
Solids, liquids and gases	What happens when an ice cube melts?	https://theday.co.uk/doomsday-glacier/
Electricity	What is needed for a current to flow around a circuit?	https://www.timeforkids.com/g56/an-electric-future-2/?rl=en-810
Celebrating Manchester's Diversity	Why is DNA essential for life?	https://theday.co.uk/the-scientists-mapping-all-life-on-earth/
The Earth	What gases are in the Earth's atmosphere and how are they changing over time?	https://theday.co.uk/volcanoes/
Waves and sound	How do we hear sounds?	https://newsforkids.net/articles/2018/05/18/laurel-yanny-a-sound-illusion/
Improving health in Manchester	How can we live a healthy life?	https://theday.co.uk/the-deeper-causes-of-a-mental-health-meltdown/
Metals and uses	What metal is best to make jewellery and why?	https://theday.co.uk/deep-sea-mining/
Movement	Why do we have a skeleton?	https://theday.co.uk/ancient-footsteps-in-sand-rewrite-history/
Magnetism	What is the shape of the magnetic field around a bar magnet?	https://theday.co.uk/earths-magnetic-poles-could-be-about-to-flip/
Light	Can you describe how light travels?	https://newsforkids.net/articles/2022/02/03/huge-lightning-flashes-set-new-records/
Acids and Alkalis	Why do we brush out teeth and what does this have to do with acids and alkalis?	https://www.cbsnews.com/news/acid-rain-environment-earth-day/
Types of chemical reactions	What might you see when a chemical reaction is happening?	https://theday.co.uk/huge-meteor-explosion-like-10-atom-bombs/
Ecosystems	Is Manchester a good example of an ecosystems with lots of biodiversity?	https://theday.co.uk/breathtaking-new-coral-reef-found-off-tahiti/
Earth in space	Name the planets in our solar system in order from closest to the sun to furthest away from the Sun.	https://theday.co.uk/id-like-a-room-with-an-earth-view-please/
Year 9		
The Martian	How can literacy help to explain scientific concepts?	https://www.tyrone.k12.pa.us/site/handlers/filedownload.ashx?moduleinstanceid=2789&dataid=3206&FileName=The%20Martian.pdf
Key concepts in biology	Why do we need enzymes in our bodies?	https://theday.co.uk/2021-the-year-science-ruled-the-world/ https://www.sciencenewsforstudents.org/article/scientists-say-enzyme https://www.sciencenewsforstudents.org/article/why-onions-make-us-cry
Cells and control	How does our body grow and repair itself?	https://theday.co.uk/2021-the-year-science-ruled-the-world/ https://theday.co.uk/spare-liver-anyone-no-longer-an-absurd-question/ https://theday.co.uk/the-surgeon-planning-a-human-head-transplant/
States of matter	How does the arrangement and the energy of particles change when water boils and turns into water vapour?	https://www.sciencenewsforstudents.org/article/particles-air-help-fatten-clouds-water-droplets
Separation techniques	Can you describe a technique that you could use to produce potable water from river water?	https://theday.co.uk/scientists-make-fresh-water-out-of-thin-air/
Atomic structure and the periodic table	Can you draw and label the structure of an atom including the 3 subatomic particles?	https://www.sciencenewsforstudents.org/article/scientists-say-atom
Forces and motion	How could you measure the change in speed of a toy car moving along a track?	https://theday.co.uk/worldwide-rocket-travel-is-another-mad-idea/
Energy	Why is no machine 100% efficient?	https://theday.co.uk/the-race-to-harness-the-power-of-the-sun/

You will need access to theday.co.uk:
Username: MCA
Password: theday