



Topical Science



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Why Topical Science?

By considering current issues of science, learners increasingly develop their understanding of scientific concepts and their capacity to form informed social, moral and ethical views. They reflect upon and critically evaluate media portrayal of scientific findings.



E's and O's/ Benchmarks

I can talk about science stories to develop my understanding of science and the world around me.

SCN 0-20a

- Talks about the science they encounter in their everyday experiences.
- Explores, through role-play, how science and science skills are used in a variety of jobs

I have contributed to discussions of current scientific news items to help develop my awareness of science.

SCN 1-20a

- Discusses and expresses opinions about science topics in real-life contexts, including those featured in the media.
- Discusses how people use science in their everyday lives.
- Describes a variety



Through research and discussion, I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this has made on society.

SCN 2-20a

- Researches historic and contemporary scientists (ensuring gender balance) and their scientific discoveries and reports collaboratively to others using a range of methods.
- Describes the impact of scientific discovery, creativity and invention on society past and present, for example, in design, medicine and agriculture.
- Demonstrates understanding of how science impacts on every aspect of our lives.
- Relates the development of scientific skills in the classroom to an increasingly wide variety of science, technology, engineering and mathematics (STEM) careers.

I can report and comment on current scientific news items to develop my knowledge and understanding of topical science.

SCN 2-20b

- Explores items of current scientific interest within the school, local community, nationally or in the global media and collates, organises and summarises findings, with assistance.
- Shares opinions about a variety of topical scientific issues considering, for example, moral, ethical, societal, cultural, economic and environmental aspects.



Literacy Skills

The importance of the development of literacy skills across all areas of the curriculum is stressed in Building the Curriculum 1.



- the use of relevant, real-life and enjoyable contexts which build upon children and young people's own experiences
- making meaningful links for learners across different curriculum areas
- frequent opportunities to communicate in a wide range of contexts, for relevant purposes and for real audiences within and beyond places of learning



Whatever the sector, whatever the subject area, young people will be:

- engaged in talking together to deepen their learning and thinking
- working together to prepare for reading unfamiliar texts
- reading a wide range of texts to gather and analyse information for a range of purposes
- writing clear explanations
- communicating information or opinions.



Topical News

Glasgow News

Scientists have found more than 200 fossilised pterosaur eggs in northwest China. They think the eggs are 120 million years old!

Pterosaurs were flying reptiles that lived more than 66 million years ago. They lived alongside the dinosaurs — but don't make the mistake of calling them dinosaurs! They were quite different animals. Until the discovery of these eggs, only 11 had ever been discovered, which meant that palaeontologists (scientists who study fossils) didn't know much about young pterosaurs. Now, with 215 more eggs to study, they think they can figure out a lot more about these prehistoric animals!

The scientists think sudden floods during a bad storm swept hundreds of eggs downstream, bumping them into one another and over rocks and stones. When the eggs eventually came to a stop, they were buried in sediment (very fine pieces of rock) very quickly. This sediment also filled the inside of the eggs, coming in through cracks in the shells that were caused by their bumpy journey downriver. Over thousands of years, this sediment caused the eggs and their contents to harden into fossils. They then sat trapped in rock for millions of years, until the group of palaeontologists uncovered them. Sixteen of the fossils were in such good condition that scientists could even see embryos (developing babies that hadn't hatched yet) in them. These

embryos were at different stages of development, so some were closer to hatching age than others. This allowed scientists to see snapshots of how baby pterosaurs formed within the egg, which helped them create a development timeline.

One of the most interesting discoveries they made was that pterosaurs' back legs developed well before their front limbs. Researchers studying the eggs think that this means newborn pterosaurs would have not been strong enough to walk around on all fours, but not strong enough to fly. They also found that none of the embryos had any teeth.

These are both important pieces of information because together, they suggest that baby pterosaurs were born unable to hunt for their food. Some animals, like turtles and snakes, are born capable of looking after themselves. Their parents don't need to stay around to make sure they survive, so they leave. But if pterosaurs were born with no teeth and without the ability to fly, they'd have been quite helpless. This would make it likely that their parents looked after them for a while after they hatched, until they grew teeth and started flying.

However, scientists have got to be careful when they try to figure out things from only a few pieces of evidence! Other scientists have pointed out that there's a big gap in size between the largest embryos and the youngest hatched pterosaurs. They think that there is still a chance that pterosaurs grew teeth and stronger front limbs before they hatched. Of course, the more fossils there are to study, the easier it would be to figure out how young pterosaurs developed. Luckily for the team of researchers in China, they think that there could be almost 100 more eggs in the same piece of rock! They're hoping to find fossils that fill in the gaps in the development timeline.

Article: Reach Out Reporter





Mystery Objects





I See, I Think, I Wonder

I see, I think, I wonder is a thinking routine that encourages students to study items more deeply and to make interpretations based on deeper thought. It helps stimulate curiosity and sets the stage for inquiry.









I See, I Think, I Wonder





I See, I Think, I Wonder

I see 	I think 	I wonder 
		



Odd One Out





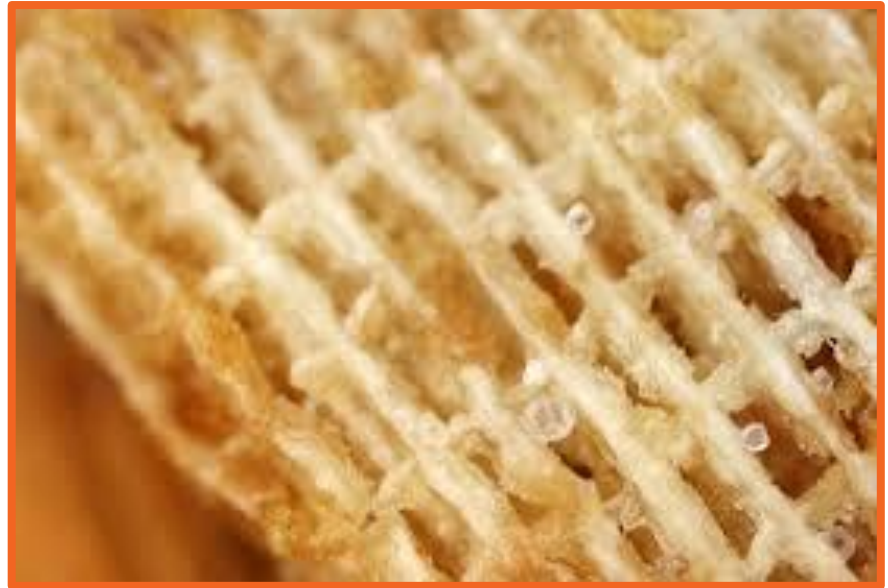
Odd One Out



Classifying
Comparing and contrasting
Justifying
Reasoning



What am I?





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NEWS UPDATE

News update

01/02/2018

On this week's update: water warning for the city of Cape Town, studying a new volcanic island, and a hammerhead shark nursery.

[View the transcript](#)



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Teaching overview

Learning points

- There are warnings that the city of Cape Town in South Africa could run out of fresh water in April, following three years of drought.
- Scientists have been using space satellite equipment to study a new volcanic island in the South Pacific Ocean.



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How do I use Reach Out Reporter?



Step 1

Pick a news story you are interested in, it might be something related to what you are teaching at the moment, or something for future reference.



Step 2

Open the story and brush up on the details – supported by glossary terms and classroom activities.



Step 3

Open the videos, images and audio clips in the whiteboard friendly carousel to share with your class!