

# SCIENCE

## YEAR 8

**Cells: Would you eat lab grown meat?**

Scientists have discovered a way to produce meat using cultured cells instead of livestock. This discovery is paving the way for more ethical and sustainable food production methods and could change the way we eat meat forever. Students will chew their way through this unit to discover the fascinating world of cells, and their potential to help solve a range of global issues.

**Body Systems: What does it take to be a cold-blooded killer?**

Until recently, scientists thought that boa constrictors killed their prey through suffocation, but a new study suggests it's another body system that fails. Students snake their way through this unit as they compare the body systems of humans with those of other animals.

**The Nervous System: How can your gut influence your mood?**

Ever had butterflies in your stomach or felt hangry? Then you may already have a hunch about the connection between your stomach and how you feel. It turns out there's much more to this story than previously thought. In this unit, students explore cutting-edge scientific discoveries about how the gut and brain interact. These studies suggest that the health of your gut might influence your thoughts, feelings and behaviour. With this real-world context, this unit provides students with plenty of food for thought!

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### **Energy: Learning from nature's energy engineers**

Engineers design machines to harness energy in new and exciting ways. Living things also rely on using and saving energy to survive. So by studying living things, we can often learn how to improve our technology. This has inspired new designs for trains, surfboards, robots and wind turbines!

### **Physical and Chemical Change: Unwrapping the secrets of chocolate**

Humans have been enjoying cocoa for millennia. Today, cocoa beans are turned into delicious, melt-in-your-mouth chocolate by a sequence of physical and chemical changes. Bite into this unit and get a taste of the chemistry of chocolate, as well as many other examples of changing matter.

### **Element and Compounds: What happens if the world runs out of helium?**

World supplies of helium were running low before the recent discovery of a large deposit in the East African Rift. The gas is rare on Earth because it's light enough to escape the atmosphere, but its unique properties also give it a wide range of important uses. Through this context, introduce your students to the incredible variety of elements and compounds that make up the complex world around us.

### **Active Earth: Feel the earth move!**

The surface of Earth is continually changing. The movement of tectonic plates causes natural hazards that are outside of our control. People living under the threat of active volcanoes, earthquakes and tsunamis can feel helpless. Learning about these natural hazards and how to mitigate them provides a sense of control and can even save lives. So how does understanding our active planet help society? Dig into this unit to find out more!