

ALDERSBROOK VOICES

LEARNING
AND
LEADING
Issue 2



WOMEN IN STEM

**BREAKING BARRIERS AND SHATTERING GLASS CEILINGS:
ALDERSBROOK CELEBRATES THE TRAILBLAZING WOMEN OF STEM**



Welcome to the second edition of Aldersbrook Voices! This time, our Learning Ambassadors will talk about amazing women in STEM. STEM is short for Science, Technology, Engineering, and Mathematics. These subjects are extremely important because they help us figure out how the world works, from tiny molecules in our bodies to huge planets far away in space. People who work in STEM design and create medicines, computer programs, bridges and even video games. They solve big issues such as finding ways to cure sicknesses, making the internet quicker, or building advanced robots to help us with daily tasks.

Celebrating women in STEM is really important. If only men work in these areas, we miss out on different viewpoints and ideas. Women have their own unique perspectives, which leads to new and often surprising answers. Plus, when young girls see women thriving in science, engineering, technology or Maths, it encourages them to believe they can do it too. Women in STEM improve our world by contributing a range of ideas and they also inspire the female leaders of tomorrow. I hope you enjoy this issue!





WANGARI MAATHAI



Wangari Maathai was a very important environmentalist from Kenya who cared a lot about nature and helping others. In 1977, she started the Green Belt Movement. This was a huge project to save forests from being cut down and to repair damaged land. It was remarkable because it helped women in small towns and villages plant several trees. By planting trees, they not only made the ecosystem healthier but also improved their own lives and rights to a healthy life. Maathai's work showed that taking care of nature can help communities too. She taught us that when people join together to preserve nature, it can have long lasting affects on the quality of our health.

Maathai became famous all over the world for her determination and hard work in trying to make the world a greener and equal place. In 2004, she was the first African woman to win a prestigious award called the Nobel Peace Prize. She achieved it because of her incredible work in protecting the environment, making things fair for everyone, and helping people live peacefully. She inspired people everywhere to believe that one person can really make a tremendous difference in helping nature and their communities. Today, many people who want to make the world a better place are inspired by her and follow her example.



ROCKS AND FOSSILS QUIZ

What type of rock is formed when magma cools and solidifies?

- A) Metamorphic
- B) Igneous
- C) Sedimentary
- D) Fossil

What do we call the preserved remains of plants and animals in rocks?

- A) Minerals
- B) Crystals
- C) Fossils
- D) Gems

Fossils are mostly found in which type of rock?

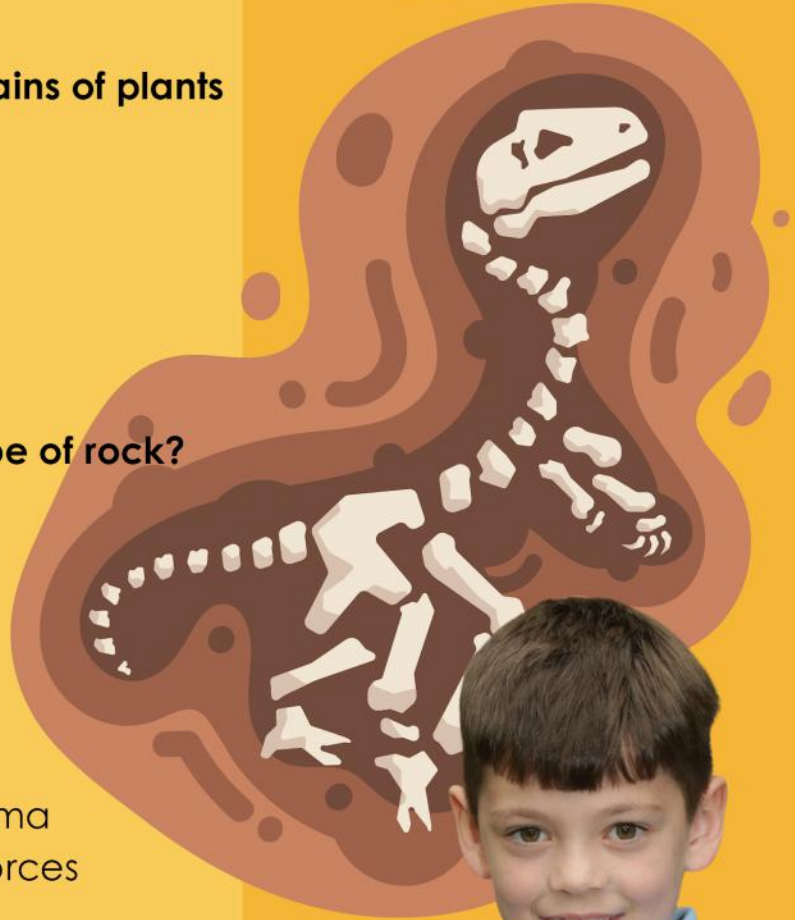
- A) Igneous
- B) Metamorphic
- C) Sedimentary
- D) Pumice

What causes erosion in rocks?

- A) Pressure from underground magma
- B) Wind, water, and other natural forces
- C) Heat from the sun
- D) Chemical reactions only

Which of the following is not true about fossils?

- A) They are only found in metamorphic rocks.
- B) They can be the remains of plants or animals.
- C) They can be millions of years old.
- D) They provide clues about Earth's history.

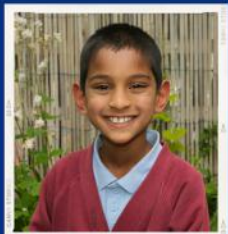


MAE JEMISON

Mae Jemison is an American who has accomplished a multitude of achievements – she's not only an engineer and a doctor but also a former astronaut for NASA. In 1992, she distinguished herself as the first African American woman to travel to space aboard the Space Shuttle Endeavour. Her space mission, known as STS-47, was crucial for its contributions to science, as she conducted experiments in space that enhanced scientific knowledge in biology and materials science. Prior to her journey into space, she had already made significant contributions in the fields of medicine and research.



In addition to her role as an astronaut, Jemison is actively involved in promoting science education. She is passionate about making science appealing and accessible to everyone, particularly to those who are underrepresented in the scientific community. To achieve this, she created the Dorothy Jemison Foundation for Excellence and started a science camp titled "The Earth We Share." This camp focuses on engaging people from various parts of the world in scientific learning. Jemison's story is deeply motivating – it includes her dream of space travel since childhood, she consistently worked towards achieving it. Her journey serves as powerful inspiration, demonstrating to all young women and individuals from diverse backgrounds, that with persistence and belief in their goals, they too can fulfil their ambitions in the realms of space and science too.

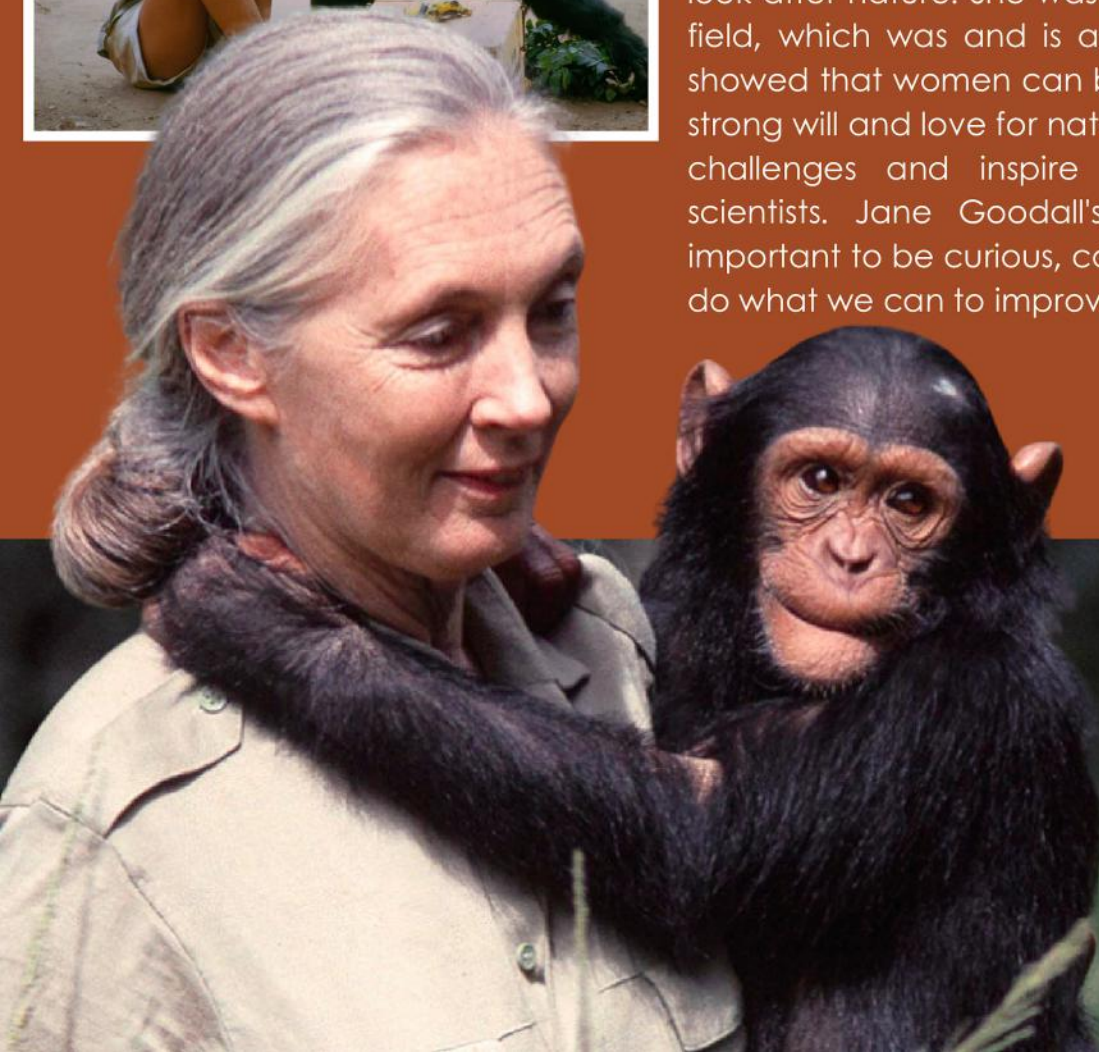


JANE GOODALL



Jane Goodall is a well-known scientist who studies animals, especially chimpanzees. These are a type of animal similar to us. She started her research in the 1960s in Tanzania, in a place called Gombe Stream National Park. Jane discovered something amazing there. She realised that chimpanzees can make and use tools, just like people do. This was a huge surprise to everyone. She spent a lot of time observing these animals and learned about their different personalities, feelings and how they interact with each other. This helped us understand both chimpanzees and humans like never before.

Goodall also works hard to preserve the environment and animals. She tries to keep chimpanzees and their homes safe and teaches people why it's important to look after nature. She was one of the first women in her field, which was and is a massive achievement. Jane showed that women can be excellent scientists too. Her strong will and love for nature has helped her overcome challenges and inspire other women to become scientists. Jane Goodall's work teaches us that it's important to be curious, care about all living things, and do what we can to improve our earth.



QUESTION TIME

Learning Ambassadors in Year 2 asked their teachers about their passions for technology, Maths and Science.



- How do you use technology in your job?
- What do you enjoy the most about using technology?
- What other skills would you like to develop?

In my job, technology plays a crucial role every day, both in planning and teaching. It not only speeds up my work but also allows me more time to spend with children. I aspire to work towards a future where all children have the skills to effectively use technology in all their lessons.



Mr Manan



- When you were in school, which topic in Maths did you enjoy most?
- How do you use Maths in your current job?
- Which topic do you enjoy teaching most?

I enjoyed learning about fractions in school, especially equivalent fractions. I use Maths in other subjects like teaching about money in PSHE. Maths helps me plan trips and lessons. My favourite topic to teach is multiplication and division, especially the commutative law.



Ms Coker



- Do you have a favourite topic to teach in Science?
- Has the Science curriculum changed since you were in school?
- What do you enjoy about Science the most?

I love teaching Year 2 pupils about seasons because they find it interesting and we can learn outside. The science lessons now are far more detailed than when I was in school. I love how science makes children and adults very curious.



Mrs Hunt



DR. HAYAT SINDI



Dr. Hayat Sindi from Saudi Arabia is a highly influential scientist who has significantly contributed to advancing healthcare, particularly in areas of the world that need it the most. She developed an innovative device named "Diagnostics For All," which is highly beneficial as it offers an easy and affordable way to conduct health tests. This invention is valuable in countries where medical services are rare. Dr. Sindi's work stands out for creating advanced medical technologies that are not only effective but also accessible to those in areas with limited healthcare resources.

She serves as a powerful role model for women aspiring to have careers in science, technology, engineering, and Maths, especially in the Middle East. She was among the pioneering women from her region to earn a Ph.D. in biotechnology from the prestigious University of Cambridge. Her achievements demonstrate that women can excel in STEM subjects which are traditionally dominated by men. Dr. Sindi is dedicated to empowering women in science and technology and has played an important role in establishing the Institute for Imagination and Ingenuity. She reminds us everyday that anyone can make great changes to the world, regardless of their background or gender.





ANIMALS AND HUMANS QUIZ

Question: Which of these is NOT a part of the human skeleton?

- A) Skull
- B) Femur
- C) Ribcage
- D) Petal

Question: What is the main purpose of muscles in the body?

- A) To help us think
- B) To protect our organs
- C) To help us move
- D) To store water

Question: What type of skeleton do humans have?

- A) Exoskeleton
- B) Endoskeleton
- C) Hydrostatic skeleton
- D) Shell

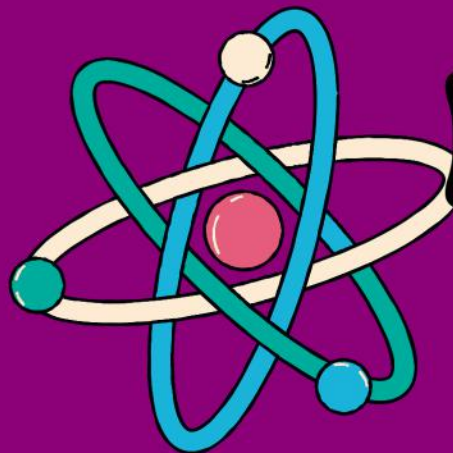
Question: Which animal has an exoskeleton?

- A) Cat
- B) Elephant
- C) Spider
- D) Human

Question: What is the spine part of?

- A) The muscular system
- B) The nervous system
- C) The skeletal system
- D) The digestive system



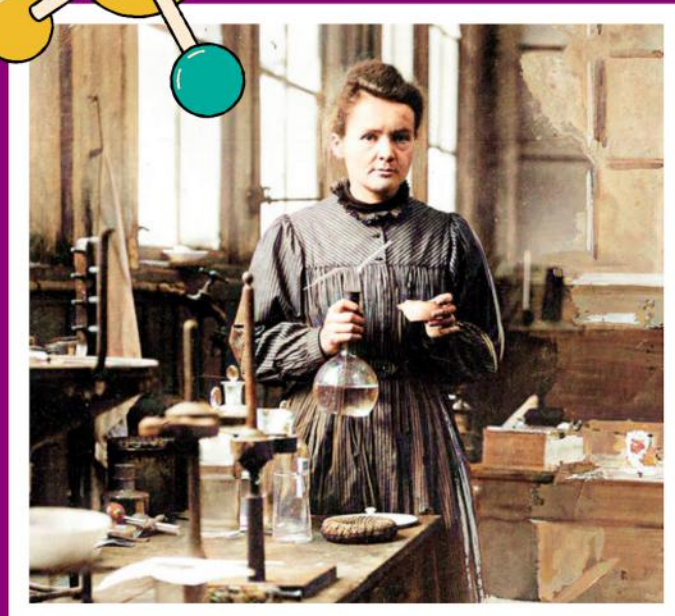
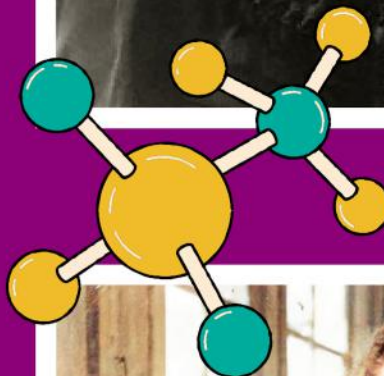


MARIE CURIE

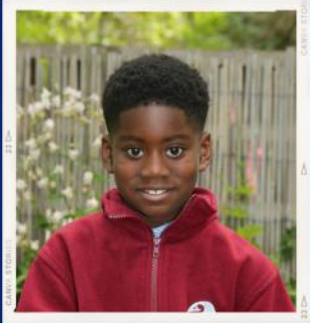


Marie Curie was a very important scientist who changed science in huge ways. She was the first woman to win a Nobel Prize, and she won it twice for two different types of science, Physics and Chemistry. She did a lot of work on radioactivity and found out that some materials can give off their own energy, which was a new and exciting idea at the time.

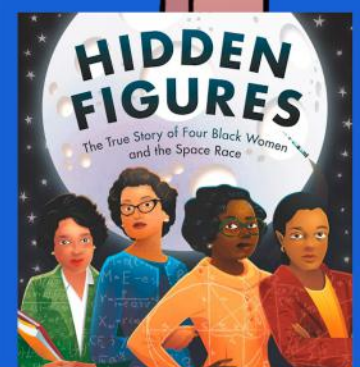
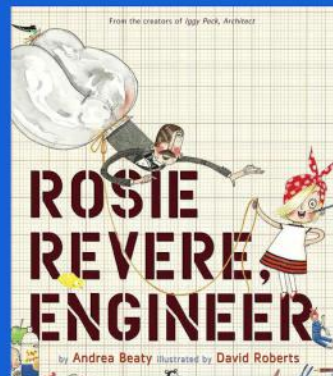
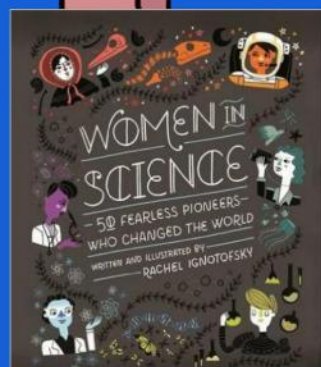
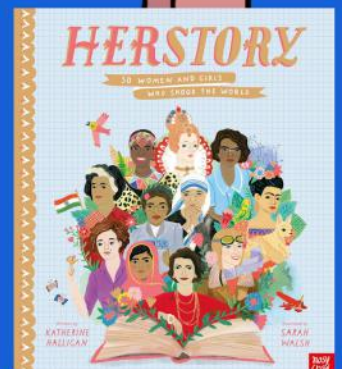
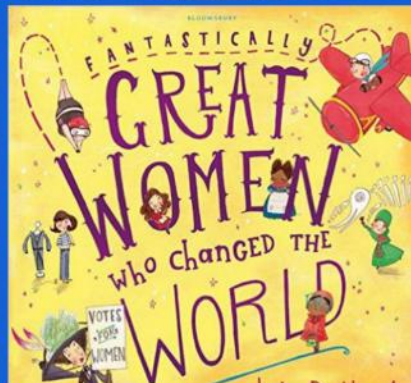
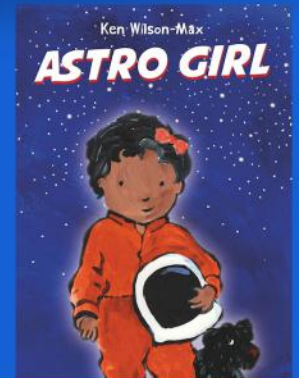
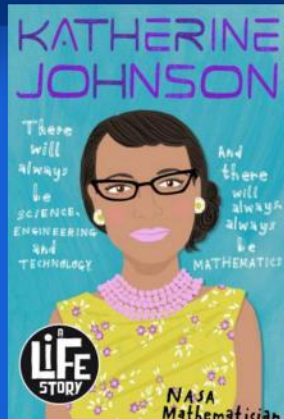
Marie Curie discovered two new elements, and she named them polonium and radium. These discoveries helped scientists understand more about what everything is made of, like tiny building blocks called atoms. She was also very intelligent in finding ways to separate and study these special elements. Plus, during the World War, she made portable X-ray machines that helped doctors see inside people to help them with their needs. Even though it was hard being a female scientist back then and there were dangers from working with radioactive elements, she continued to persevere and help others with her gifts. People all over the world still remember and are inspired by Marie Curie because she never gave up and was always curious and eager to learn more.



BOOKS ABOUT WOMEN IN STEM



Female representation in the books we read is important because we can gain a deeper understanding by hearing from the perspectives of women. Additionally, it's so important for girls to have role models in the books they read, so that they can follow their footsteps and be inspired. Here are some suggestions:



MAGNETS & FORCES QUIZ

What are the two ends of a magnet called?

- a) East and West
- b) Positive and Negative
- c) North and South
- d) Up and Down

Which of the following is not a property of a magnet?

- a) Attracts all metals
- b) Has a north and south pole
- c) Can attract or repel other magnets
- d) Loses its magnetism when heated

What happens when you put the north pole of one magnet near the south pole of another magnet?

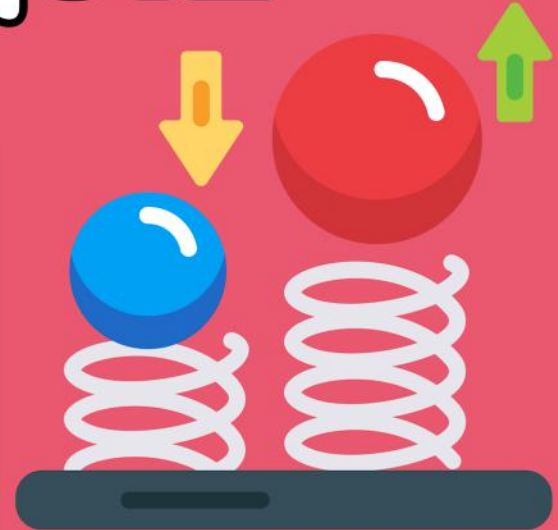
- a) They attract each other
- b) They repel each other
- c) Nothing happens
- d) They become demagnetized

Which of the following is an example of using force?

- a) Reading a book
- b) Sleeping
- c) Pushing a door open
- d) Watching TV

What is gravity?

- a) A type of magnet
- b) A force that pulls objects towards each other
- c) A force that repels objects
- d) A kind of light energy



We have arranged for an energetic professor to visit our school and guide children through a Scientific tour of discovery. They will learn about: elements, why molecules bond, understand the magic of gravity and the power of pressure, as well as experiencing explosions.

Children will have the opportunity to ignite their curiosity in Science through this immersive experience!

Mrs Mahmood
Science Lead

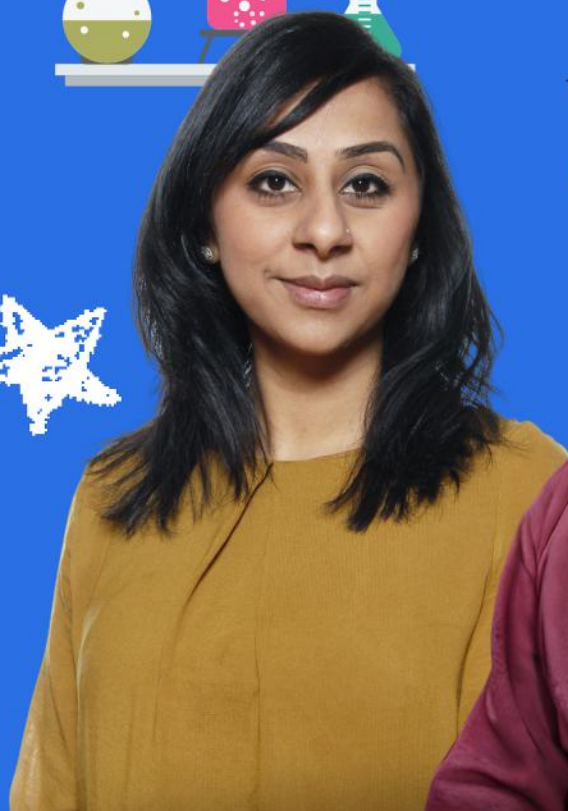
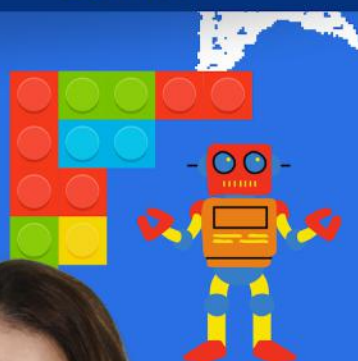
Aldersbrook is excited to celebrate STEM Week soon. Our school will welcome guests and parent volunteers who work in STEM jobs. They will talk about their work, what they love about STEM, and why it's important for women to be involved in these careers.

This event will be a great chance for us to learn more about STEM careers from the professionals who lead it.

Year 6
Learning Ambassador

A group of girls will visit the British Museum to participate in a LEGO workshop about STEM and robotics. This upcoming event will combine LEGO building with learning about science and technology. It aims to inspire girls to get interested in these subjects. The workshop is expected to be both fun and educational, helping to encourage more girls to explore careers in STEM.

Mrs Alveranga
D&T Lead



**ALDERSBROOK
STEM WEEK
WEEK COMMENCING:
11TH MARCH**

