



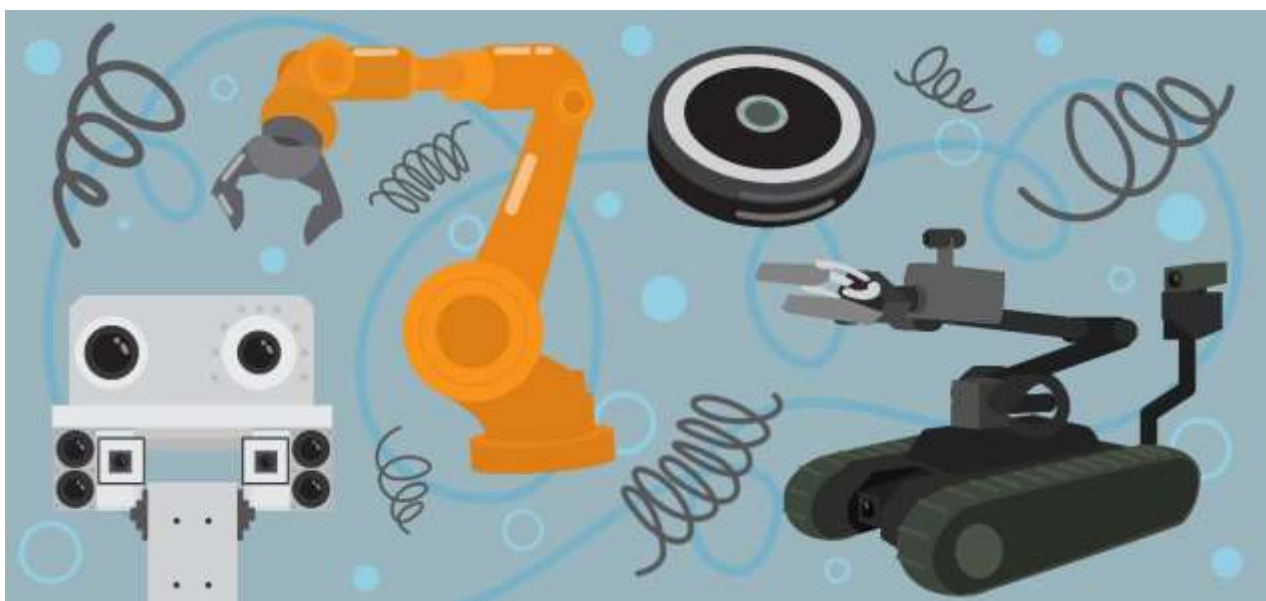
Can you find and highlight the following words in the text?

equipped	complex	surroundings	bulky
mysterious	significant	undiscovered	environmental

With a partner discuss the meanings of these words using clues in the text. Try substituting synonyms (words with a similar meaning) into the sentence and see if they still make sense. Can you put them into sentences of your own?

Words I do not know	What I think it means	What it actually means

Robots by Hannah Raven



There

was once a time when robots were considered popular children’s toys or fictional characters from films, such as Star Wars and WALL-E. They may have been terrifying, friendly or even equipped with impressive superpowers. However, with a massive advance in technology, real-life robots have now taken the world by storm. Coming in all shapes and sizes, these complex machines play an important role in many different jobs.

How do robots work?

Robots are machines that are operated by computer programs. These programs decide how and when the robot moves. Robots cannot think or make decisions like humans can, but they can use senses like we do to process information on their surroundings. Video camera eyes capture what is around them, microphones in their ears detect noise and sensor pads tell them what is nearby.

Robots at work

If you walk into a car factory or a food factory, it is very likely that robotic arms have replaced jobs that humans were doing years ago. This is mainly because they are accurate at their work and can work at rapid speed. They are capable of lifting bulky objects and reshaping materials. A robotic arm is similar looking to a human arm. Different types of tools can be put on to the end of the robotic arm so it can complete many jobs a human can do, such as gripping, cutting and spraying.

Robots in the home

Many robots can now carry out many of the chores that you don’t want to do at home, but they may come with a high price tag. You can purchase robots that can clean carpets and floors, wash windows and mow the lawn in the garden. These robots work

using sensors to prevent them falling down the stairs or hitting the furniture. Once it has completed its work, the robot will recharge at a charging or base station. Robots such as these are very popular with busy workers.

Rescue robots

Robots are extremely useful for carrying out dangerous jobs that are too risky for humans to do. The Army use robots to detect explosives inside mysterious objects or vehicles, as well as being able to spy on the enemy. Soldiers control these robots from a safe distance away. Pictures or videos taken by the robots tell soldiers the location of enemies or any potential threats close by. Drones are also a type of robot which the Army use and are known by many as 'the eye in the sky'. Some engineers have even suggested that robots may take over human soldiers in the distant future.

Robots are also significant for the fire service and police force. Infrared cameras in the robot's eye (cameras which photograph heat) can detect the hottest parts of fires and where people are hiding in buildings.

Exploring robots

There are some regions of the universe which are impossible for humans to reach but possible for specially designed robots. The US Space Agency have sent many robots to Mars, so they can carry out tests to find out more information about this red planet.

Scientists have also created two types of robots to explore the depths of the world's oceans. Remotely operated vehicles (ROVs) are controlled by humans with remote controls, whereas Autonomous underwater vehicles (AUVs) guide themselves through the water using sensors. They send back images and videos of the sea floor, undiscovered marine animals and shipwrecks. Some underwater robots can also fix underwater pipe work, cables and oil rigs.

Robots save the planet

In an attempt to save the world's ocean from pollution, a Dutch environmental company called RanMarine have invented a robot which clears plastic from coastal waters. It doesn't produce any pollution and doesn't harm marine animals. Named the WasteShark, this robot eats up any plastic in its way. The aim of this new invention is to try and collect plastic waste before it drifts out to sea. This then prevents harm to wildlife and to the world's reefs. Once the plastic has been collected it can be recycled.

Termly Focus: Vocabulary



Q1

'fictional characters'

What is meant by the word fictional? Tick one.

imaginary

funny

Q2

What is meant by the phrase 'real-life robots have taken the world by storm'? Circle one.

robots have caused storms in the world

robots have become very popular around the world

robots stop storms from happening

people do not like real-life robots

Q3

'these complex machines'

What does the word 'complex' mean? Circle one.

easy

complicated

clever

fun

1 Mark

Q4

Look at paragraph 3. Find and copy one word that tells you robotic arms make no mistakes when working.

1 Mark

Q5

Give two things the word 'bulky' suggests about the objects robots at work can lift.

1) _____

2) _____

2 Marks

Q6

Find and copy a group of words which suggest robots for the home are expensive.

1 Mark

Q

Q8

Look at the final section.

What is meant by the word 'recycling'?

1 Mark