Year 4

Week 3: Robots

You do not need to print off any of the challenges. You can complete them on a piece of paper and take a picture of your work to upload it to Twitter or Facebook.

These activities are also available on SeeSaw, where teachers will talk about the learning with the children.

English	Spelling	Maths	Wider Curriculum	Wellbeing
English Activity 1:		Coordinates	DT Activity 1	E-safety
	Words ending in -er and -ar	Maths Activity 1:	First, Complete the robot engineering	
Read the Shark Fact File non-chronological report.		·	programme.	
(Copy attached)	You have a challenge using	Watch the teaching video and information on BBC	No. 1 - otal a distribution de cons	DE COMPOSE O
	this week's words on	Bitesize which will help you to describe and plot coordinates on the first quadrant.	Next, <u>watch a video</u> that introduces a problem and shows how to design	BE SMART
Watch the video and find the features. Video link	Spelling Shed. If you don't	·	and build a robot to solve the	
Video link Or	have access to Spelling Shed, here is a list of words	Play the online <u>Hit the Coordinate</u> game.	problem.	
Use the checklist to find the features	ending in -er and-ar for you	Hit the Coordinate	Then, children will design or build	
	to practise with an activity.	Hit the coordinate and score points.	their own robot for their own	
	,	•	problem.	Are you SMART online?
	[!?,]	•		Take the quiz to find out
English Activity 2:	calendar (; : .)	3	DT Activity 2:	Take the quiz to find out
	•••	2		<u>Quiz</u>
Write a non-chronological report on the robot that	regular particular	1	Finally, children will complete an evaluation of their design or build.	
you designed in the D.T Activities.	? \	Target: 5core:	evaluation of their design of build.	
Use the Robots example to help you write it.	peculiar popular	(0,5) 5		
(Copy attached)		a tel time of a rand ti	Music	
(copy actualica)	consider	Maths Activity 2:		
ROBOTS	3.5		Create your own Robot Rap, just like Cartoon Network have done	
A robot 10 a marbler than does taken althout the help of a permain hary payals often of robusts as excitings that look and art like possile. Bust release (traph) are not take like permiss for rounds do only when a permiss has belief them to do.	quarter integer	Plot the coordinates to discover the robot.		
How Robbits North Not relate are unsuperconstrained design with many parts. As industrial relate, for example, its an involve analyse with one term on jewered pitchs. It has a feedlike part to great are hably hidden. Notice was the parts.		First these coordinates to make a robot primers: Use in [14.10] [16.17] Use in [46.14] [16.13] [16.14] Use in [16.14] [16.17] Use in [46.14] [16.14] [16.14] Use in [16.14] [16.17]	Cartoon Network Robot Rap	
Since require days to "compart" on the agent of the applies a place and the all indicated a require through the second record of the applies and the applies are also as the applies and the applies are also the applies are also the applies are also the applies and the applies are also the applies and that the applies are also the applies and the applies are also the applies and that the applies are also the applies are also the applies and that the applies are also th		time (1) ×	The state of the s	
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Heter are associally arted because they are in this what must be described for association of the described for a statistical section of the statistic points as a statistic test or officeral is used to describe the statistic points of the statistic points are not statistic test.				
History Without two scalars Sweep and Olds tall at top value anomators, with more like unions. Two wars not be entire by store, after such as well and against its the falls MNS and well pulled anomators and the second control of the second c				
were and to matter a please date, where "editing andpass, but had a 2000 and word) define consists understand model adjustment or well-model by an about a model and had the enterties to had no current below of wars. In water them: retter why was short offer consistent were investigated. If the which consistent polarization appears incent to an electronic model was about offer consistent were investigated. The "Add the body of the consistent polarization appears incent to a clean on table one."				
1 2				

English Activity 1: Finding the Features of a Non-Chronological Report

Shark Fact File

Sharks are a type of fish but instead of having bones, their skeleton is made of cartilage. This is what your ears and the tip of your nose are made from. There are more than 500 different species of shark, including the great white shark, grey reef shark, hammerhead shark and tiger shark. Scientists believe that sharks have been in our oceans for around 455 million years. Some species of sharks prefer to live alone while others live in groups called a school or shoal.

Where do they live?

Sharks can be found in all of the Earth's five oceans: the Atlantic, Pacific, Indian, Arctic and Southern. Some sharks can even be found in freshwater lakes and rivers. Different species of shark live in different oceans depending on the temperature of the water. Most prefer warmer temperatures though polar sharks prefer colder water.



What do they eat?

What a shark eats depends on its species and where it lives. Most sharks are carnivores because they like to eat fish and other sharks. Some larger sharks eat dolphins, sea lions and small whales. Smaller sharks eat smaller prey such as clams, crabs and squid.

Some types of shark can be deadly, but only about 12 species have ever attacked humans. In fact, shark attacks are not very common. More people die from bee stings and natural disasters such as earthquakes and volcanoes each year than from shark attacks.

Shark Senses

Sharks have all the senses that humans have; smell, sight, touch, taste and hearing. The strongest is their sense of smell. Sharks can smell a single drop of blood in the water from 400 metres away. They can also hear fish moving from around 500 metres away. Sharks have very good eyesight and they can see in low levels of light.

Amazing Fact!

Most shark species would die if they stopped moving. As long as they keep swimming, water keeps moving over their gills, which keeps them alive.

Did You Know...?

A baby shark is called a pup.



Topic title covers the whole subject.

Brief introduction paragraph gives who/what/where overview.

The information is organised into paragraphs.

Each category has a sub-heading.

Some information may be in fact boxes or bullet-point lists.

Extra details support the main points.

Non-chronological reports use factual language.

Present tense verbs (unless it is a historical report, then it would be past tense).

Technical language may be explained in a glossary.

Third person makes it impersonal.

Non-chronological reports have a formal tone.

General language, not particular examples.

ROBOTS

A robot is a machine that does tasks without the help of a person. Many people think of robots as machines that look and act like people. Most robots, though, do not look like people. And robots do only what a person has built them to do.

How Robots Work

Most robots are computer-controlled devices with many parts. An industrial robot, for example, is an armlike machine that can turn at several joints. It has a handlike part to grasp and hold things. Motors move the parts.

Some robots can be "taught" to do a job. For example, a person might guide an industrial robot through the movements needed to do something. Sensors on the robot send signals about the movements to the computer. The computer stores the pattern of movements. Later the computer can retrieve the pattern and tell the robot what to do.



Uses



Most industrial robots are used in factories. Some robots load, move, and unload materials. Others are used on assembly lines to help build things such as cars and appliances.

Robots are especially useful because they can do things that could be dangerous for people. For example, they can be sent deep underwater or into space. Robots can also handle dangerous materials such as radioactive waste or harmful chemicals. They can even dispose of bombs or do spy work for the military.

<u>History</u>

Writings from ancient Greece and China tell of toys called automatons, which were like robots. They were set in motion by steam, air, water, or falling weights. In the late 1700s and early 1800s, complex automatons could play music or write with a pen on paper. During this time, people also built machines to help do certain kinds of work. In modern times, robots only came about after computers were invented. With computers, people could program robots to do tasks on their own.

Did you know...

Science-fiction robots that look exactly like humans are known as androids.



integer

quarter

Words with the suffix -ar and -er

Read the words

Make sure you know the meaning of the words. Look them up in <u>Collins</u> <u>Cobuild (a good online dictionary)</u> and put them into a sentence

Sort the words into ones that end in ar and ones that end in er.

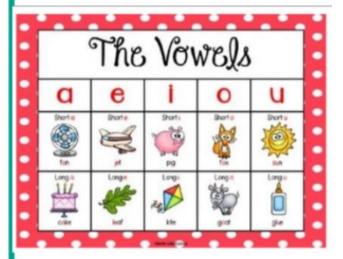
Is there a pattern or rule or do you just have to remember it?

Look below for a good spelling strategy you can use to remember whether the word ends in –ar or –er

Words Without Vowels

Write each word with a line instead of each vowel. Go back later and fill in the missing vowels.

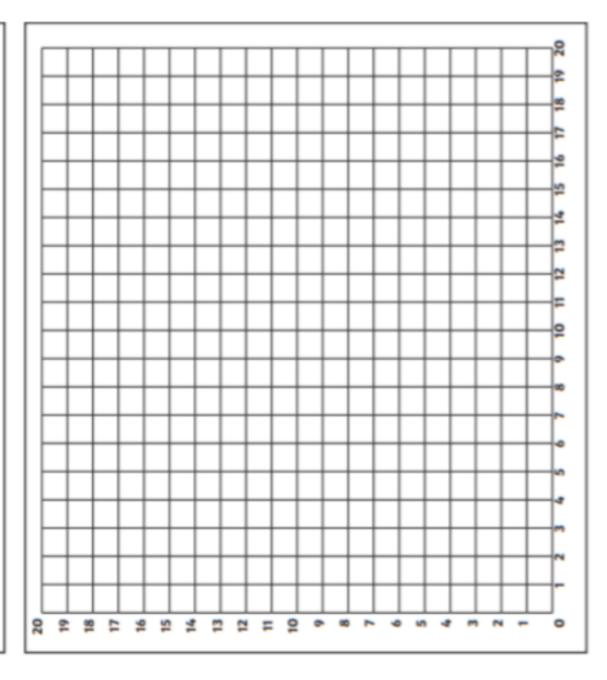
r_g_l_r





Coordinate Pictures

Line 9: (10,5), (10,1), (13,1), (13,2), (12,2), (12,6), (10,6) Line 6: (10,14), (12,14), (12,13), (15,10), (14,9), (11,12), (10,12) Line 8: (8,6), (6,6), (6,2), (5,2), (5,1), Line 7: (8,16), (10,16) (8,1), (8,5) Plot these coordinates to make a robot picture: Line 4: (8,15), (8,5) (10,5), (10,15), (8,15) Line 5: (8,14), (6,14), (6,13), (3,10), (4,9), (7,12), (8,12) Line 3: (7,19), (7,15), (11,15), (11,19), (7,19), Line 2: (10,18), (10,17) Line 1: (8,18), (8,17)



My problem:	What kind of robot will solve that problem? How?
Ideas of what my robot should look like	Materials and equipment I can use to make my robot

My Evaluation

What I am pleased with:	Did anything go wrong?
What I enjoyed doing:	How did I fix the problem?
What I found tricky:	What would I like to be different?