Weekly Home Learning Timetable

Year 3

English

<u>Focus-To be able to write exciting</u> vocabulary.

Watch the links...

https://www.youtube.com/watch ?v=hifcUYaACzI

https://www.youtube.com/watch
?v=a0iWKXcN4Is

https://www.youtube.com/watch ?v=94aFcx6oliY

We are going to focus on some pictures and describe what is happening and how some of the characters could be feeling.
Remember to use the 5 senses to help you describe the picture.

Use this picture ...



Now, create a mind map of exciting adjectives, verbs and adverbs to describe and explain what is happening.

Use a dictionary and thesaurus to help you create some great ideas.

Next, write a few sentences using the vocabulary from your mind map to describe the picture.

Monday

Maths

<u>Focus- To be able to recognise the place</u> value of digits.

Warm up by practising your times tables. Choose from the links below:

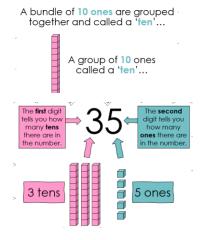
https://play.ttrockstars.com/auth/school https://www.bbc.co.uk/teach/supermovers

Today we will be looking at recognising the place value of different digits. All numbers are made up of digits. Numbers 0-9 are one digit numbers. 2 digit numbers are made up of tens and ones. 3 digit numbers are made up hundreds tens and ones.

Place value allows us to represent all our numbers with just the digits 0–9. Your child will learn that the position of the digit in a number tells us the value of the digit. In Year 3, they will practise on numbers up to three digits long. For example:

In 423, there are four hundreds, two tens, and three ones

10



Topic

Focus- To understand the life of Mary Anning.

Use:

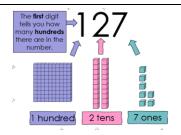
https://www.bbc.co.uk/bitesize/topics/zd8fv9q/articles/zf6vb82

Read the information and watch the videos.

Complete the fact profile of Mary Anning below.







Please scroll down to the resource section for today's worksheets.

Tuesday

Maths

Focus- To be able to add and take away 10s and 100s

Warm up by practising your times tables. Choose from the links below:

https://play.ttrockstars.com/auth/school https://www.bbc.co.uk/teach/supermov ers

Today we will be using our knowledge of place value to add 10 or 100 more and find 10 or 100 less. When we add 10 more we look at the tens column and when we add 100 more we look at the hundred. Use the following videos to help you:

https://www.khanacademy.org/math/early-math/cc-early-math-add-sub-1000/cc-early-math-add-ones-tens-hundreds/v/adding-ten-or-one-hundred

Design Technology Focus-To know about iterative design.

Follow this link to access the lesson:

https://www.bbc.co.uk/bitesize/articles/z6nkwty

Task 1 - We're going to take a boat through the iterative design process.

First, you will need to build a boat of your own - using materials from around your house, how creative can you be in the design?

Have a think about what you know about boats already, e.g. their shape and how they might float. What type of material will float best? What materials might be a problem to use?

Task 2 - Time to test your design!

Your design may or may not float - it doesn't matter as long as you know why because this is the first iteration.

Have a think about the size, weight and shape of your boat, as well as the materials you used.

It is important to record your findings so that we can make use of them in the next iteration - you can use the worksheet for

English

<u>Focus-To be able to identify and use</u> conjunctions.

Watch the links...

https://www.theschoolrun.com/what-is-a-conjunction

https://www.bbc.co.uk/bitesize/t opics/zwwp8mn/articles/z9wvqh v

https://www.bbc.co.uk/teach/supermovers/ks2-english-conjunctions-with-laura-bubble/zv4hd6f

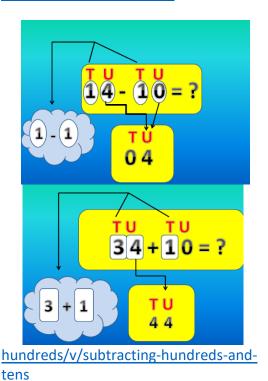
Then, complete the activity sheet below.

Lastly, write your own sentences using a range of conjunctions.
Use the word mat below to help you.



gg111387451 www.gograph.com

https://www.khanacademy.org/math/ea rly-math/cc-early-math-add-sub-1000/ccearly-math-sub-ones-tens-



this and you will need a pen or pencil.

Task 3 – review your design using the sheet below.



Please scroll down to the resource section for today's worksheet.

Wednesday

Maths

Focus-- To be able to use place value to order numbers.

Warm up by practising your times tables. Choose from the links below:

https://play.ttrockstars.com/auth/school https://www.bbc.co.uk/teach/supermov ers

Today we will be looking at ordering numbers using place value. When you order numbers you can use place value to determine where the number should go, by looking at the digit in the hundreds, tens or ones. Think about:

- How many ones does the number have?
- How many tens does the number
- How many hundreds does the number have?

Have a practice using these 2 slides.

Focus- To understand the past

Use:

https://www.bbc.co.uk/bitesize/t opics/z9bbkqt/articles/z22g7p3 and the information file below.

Create sedimentary rock on a bottle or bag...follow these instructions:

How Are Sedimentary Rocks Formed?

Try this activity to see how sedimentary rocks are formed. You should see results by the end of the lesson! wo tablespoons each of gravel, sand, soil and stones in a These materials are like the particles or sediment that is ited in seas or lakes.

Pour water over the sediment. This is like the water in the seas or lakes. Now, leave the beakers or bottles somewhere that they won't be disturbed

Check them at the end of the lesson.

Then complete this activity:

English

Focus-To be able to identify and use adverbs.

Watch the links...

https://www.youtube.com/watch ?v=94aFcx6oliY

https://www.youtube.com/watch ?v=StyV3acYm0g

Then, complete the activity sheet below.

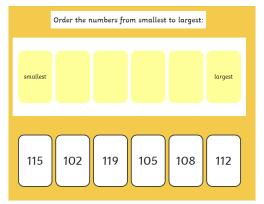
Lastly, write your own sentences using a range of adverbs. Use the word mat below to help you.

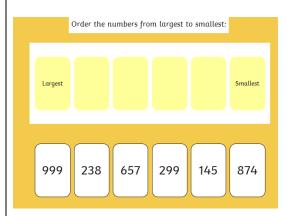
Science

through fossils.









Once you have completed the two practise questions scroll down to the resource section to complete today's worksheet.

Geological Challenge Work in pairs to complete this geological challenge! On your Geology Island Activity Sheet, you will see a map of an Island. Your task is to create a geological map for this island. This is a two-part task. Part One Your map is split into different areas. Draw a picture of a fossil in each area. Draw a picture of a fossil in each area. Make sure you know which time period see and the sure you know which time period so when the sure you know which time period so when the sure you know which time periods you chose fossils from. Then, draw a key at the side of your island map. This key should have coloured boxes - one for each of the time periods you chose fossils from. Do not colour your own map!

Create a poster using the information, explaining what you have learnt and how fossils are used to help us understand the past.

Thursday

English Focus-To be able to find information in a text to answer questions.

Watch the links...

https://www.youtube.com/watch ?v=W7BW9gv_OkU

https://www.oxfordowl.co.uk/for -home/oxford-owlvideos/reading-comprehensionvideos/

Complete some of the reading comprehensions below in the resources section.

Maths

Focus- To be able to add and subtract ones, tens and hundreds from a number.

Warm up by practising your times tables. Choose from the links below:

https://play.ttrockstars.com/auth/school https://www.bbc.co.uk/teach/supermov ers

This week we will be moving on from place value and using our knowledge to help us with addition and subtraction. Today we will be adding and subtracting one, tens and hundreds from a 3-digit number.

When we add or subtract ones we need to be looking at the ones column. When we add and subtract tens we look at the tens column. When we add and subtract

Geography

<u>Focus—To know the different rivers</u> of the world.

Use:

https://www.bbc.co.uk/bitesize/ articles/z2kdbqt

Read the information and watch the videos about rivers of the world.

Task 1 – Complete the label the rivers activity (see resources below)

Task 2 – Research 1 of the rivers in depth and create a poster of facts about that river.



hundreds we look at the hundreds column.

Adding and subtracting ones:

Adding and subtracting tens:

Adding and subtracting hundreds:



Friday

English Focus-To be able to apply our SPaG knowledge.

Today we are going to focus on SPaG.

Remember SPaG stands for Spelling, Punctuation and Grammar.

Think about the different spelling rules (prefixes, suffixes and homophones) we have learnt so far in year 3, the punctuation (full stops, capital letters, question marks, exclamation marks and commas in a list) we use and the different types of words (verbs, adjectives, conjunctions, adverbs, nouns) we have looked at.

Maths

<u>Focus – To be able to solve problems</u> involving place value.

Warm up by practising your times tables. Choose from the links below:

https://play.ttrockstars.com/auth/school https://www.bbc.co.uk/teach/supermov ers

Art

Focus-To be able to draw a landscape scene.

Think about key tourist sights in the United Kingdom.

Pick one of the landmarks and find a picture on Swiggle. Try to recreate the picture using sketches and coloured pens and pencils.

Examples: Edinburgh Castle

Play:

https://www.bbc.co.uk/bitesize/topics/zd63xyc/articles/zdp4pg8

To refresh your memories of our SPaG learning.

Next, try to complete as many of the SPaG challenge cards below.



Use all the knowledge you've learnt over the past few of days to help you solve place value problems. Remember to read the question a couple of times so you understand what it is asking you to do. Then pick out the key information and solve the problem.



when calculating mathematical problems

Remember:

- 3 digit numbers are made up of hundreds tens and ones.
- When ordering numbers check the value of the digit in the hundreds, tens and ones.
- When you are adding tens or hundreds make sure you adding to the correct place value column.

Please complete the worksheet in the resource section.



Scottish Highlands



River Thames



Buckingham Palace



London Eye





Other activities for the week

- **Read-** Read to yourself, siblings or adults. You could even email your teachers and tell them about the book you are reading and why you like it.
- Spellings Practise your Year 3 and 4 Statutory Spellings. Can you put them in a sentence?
- **Maths** Further practise your times tables and divisions by following the link below. https://www.topmarks.co.uk/maths-games/hit-the-button
- Times tables- Keep practising your times tables on Times Tables Rockstars.
- <u>DIY Crystals-</u> Grow your own crystals at home. Follow this link for instructions https://team-cartwright.com/growing-crystals-for-kids/
- Rainbow Sun Catchers- All you need is white card and coloured tissue paper. Cut the card into any shape, and then using the coloured tissue paper collage your chosen shape. Then hang the sun catcher in a window.
- <u>Fire breathing dragon-</u>Create your very own fire breathing dragon using this link https://onelittleproject.com/paper-roll-dragon-craft/
- <u>Create a bird feeder-</u> Follow this link to make your very own bird feeder out of materials from your cupboard https://www.goodtoknow.co.uk/family/things-to-do/how-to-make-a-bird-feeder-291299
- Get active-Play some just dance or follow a cosmic yoga story on YouTube.

 Origami- Learn the art of paper folding and see what oyu can create. There are lots of instructions on this website that you can follow http://www.origami-instructions.com/





Bird feeder

Fire breathing dragon

Sun catchers

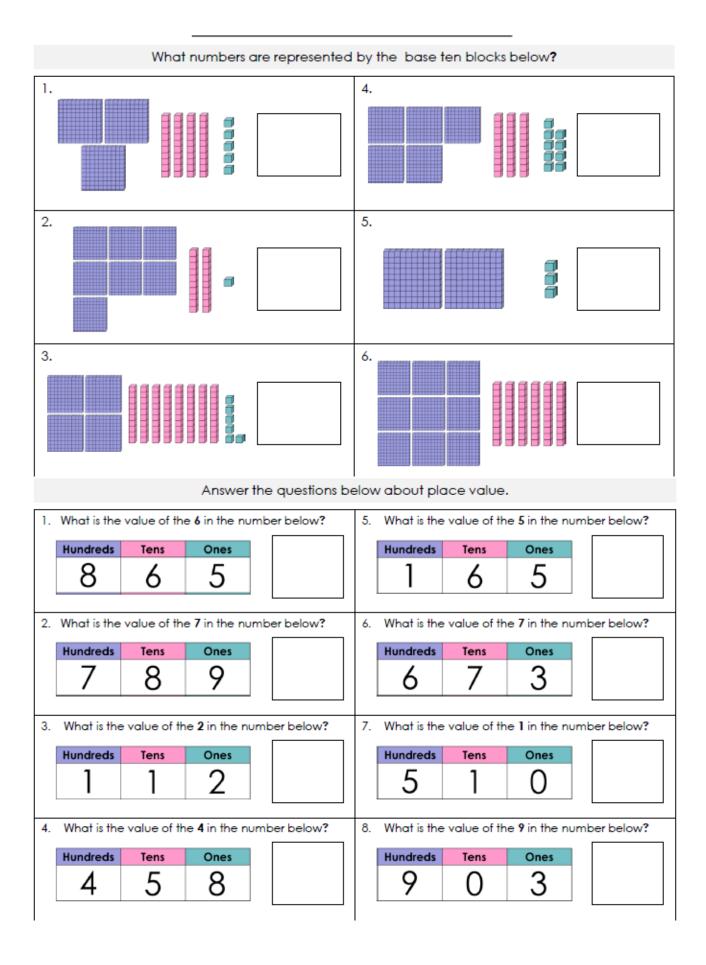
Resources

Year 3 and 4 Statutory Spellings

accident	caught	eighth	heard	minute	possible	strange
accidentally	centre	enough	heart	natural	potatoes	strength
actual	century	exercise	height	naughty	pressure	suppose
actually	certain	experience	history	notice	probably	surprise
address	circle	experiment	imagine	occasion	promise	therefore
answer	complete	extreme	increase	occasionally	purpose	though
appear	consider	famous	important	often	quarter	although
arrive	continue	favourite	interest	opposite	question	thought
believe	decide	February	island	ordinary	recent	through
bicycle	describe	forward	knowledge	particular	regular	various
breath	different	forwards	learn	peculiar	reign	weight
breathe	difficult	fruit	length	perhaps	remember	woman
build	disappear	grammar	library	popular	sentence	women
busy	early	group	material	position	separate	
business	earth	guard	medicine	possess	special	
calendar	eight	guide	mention	possession	straight	



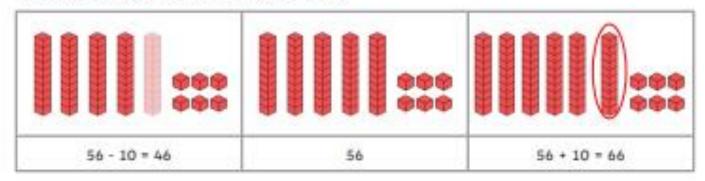
MONDAY MATHS



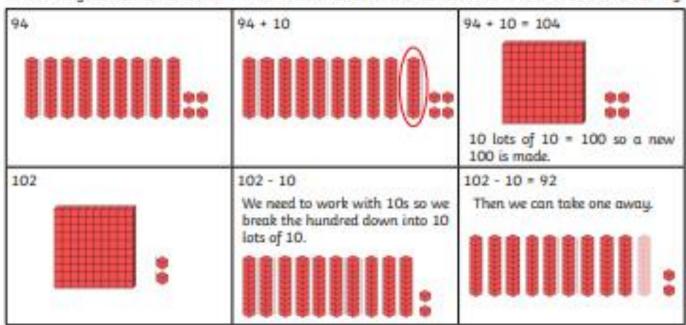
Tuesday Maths

10 More and 10 Less

Adding or subtracting 10 can be done by representing or imagining a number as hundreds, tens and ones and simply adding or removing one of the tens e.g.



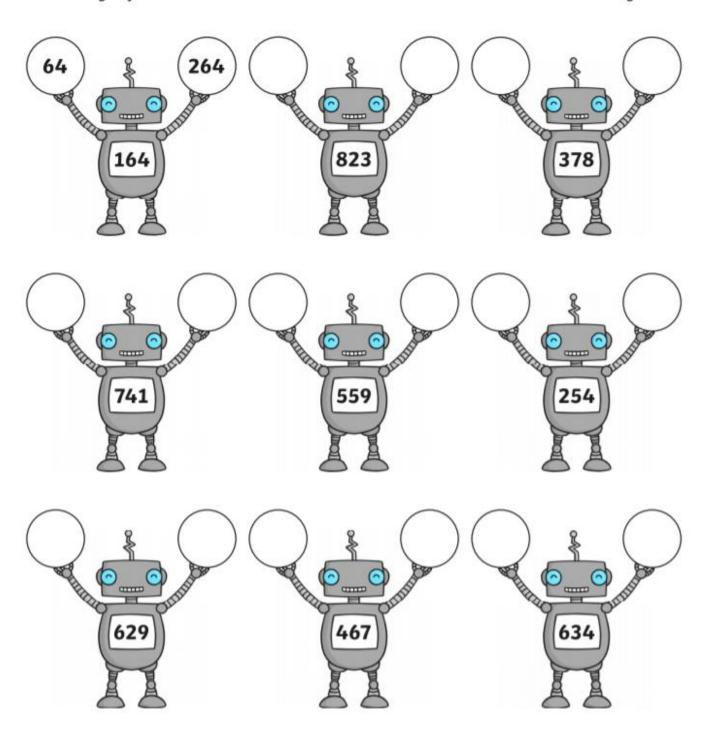
Sometimes you will make a new hundred or need to break a hundred down into tens to be able to do this. e.g.



- A. Try these. Draw the hundreds, tens and ones if you wish.
- 1. 43 10 =
- 2. 27 + 10 =
- 3. 59 10 =
- 4. 38 + 10 =
- 5. 97 + 10 =
- 6. 107 10 =
- 7. 153 + 10 =
- 8. 195 + 10 =

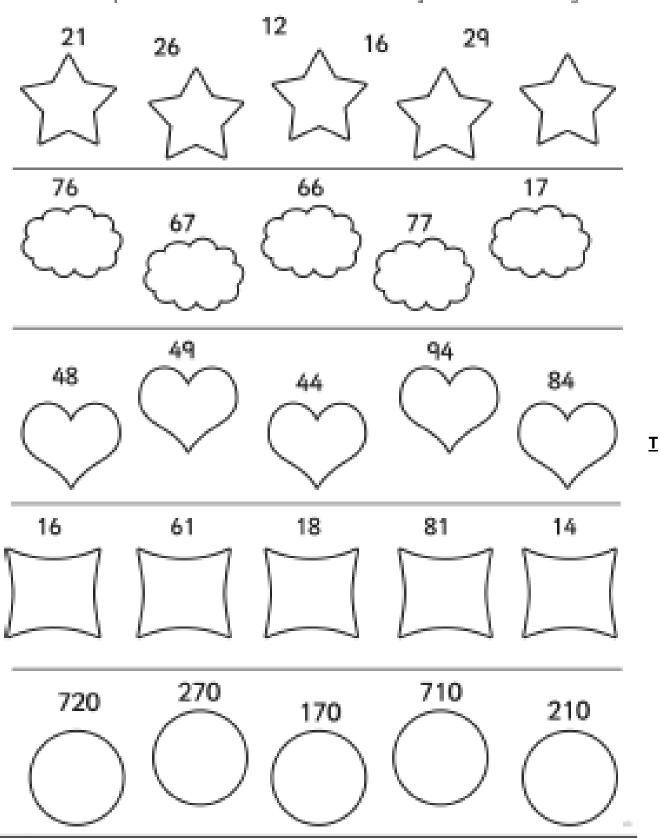
100 More, 100 Less

Can you find 100 more than and 100 less than the number in the robot's tummy?



Ordering Numbers to 1000 Worksheet 1

Fill in the spaces below with the numbers in order from smallest to largest.



Thursday Maths

Challenge

Explain how you would use 9+4 to help you calculate 931+ 400

Solving Number Problems Using Number Representation

For each of the problems below, begin by representing the number in the place value chart then complete the calculation by adding or subtracting from the appropriate column.

E.g. The Jones family have 56 fish.

Represent 56 in the chart by using dots or base 10 bars.

Hundreds	Tens	Units
	°	000

Then read the rest of the question and add or cross out the extra dots or bars needed.

They buy 10 more. How many do they have altogether?

Don't forget to make a new hundred if you have 10 dots or bars in the tens column.

 76 people have attended the School Summer Fayre.
 If 10 go home, how many are left?



Hundreds	Tens	Units

Answer

Raj has saved £49.

His grandmother gives him £10. How much does he have altogether?



Hundreds	Tens	Units

Answer

 Bilal collects stamps. He has 326.

> He buys a packet of 100 with his pocket money. How many does he have now?



Hundreds	Tens	Units

Answer

Solving Number Problems Using Number Representation

 There are 97 guinea pigs in the zoo enclosure.

> 10 babies are born. How many are there altogether?



Hundreds	Tens	Units

Answer

 Billy is playing a video game. He has scored 872 points.

> He misses a jump and loses 100 points.

How many does he have now?



Hundreds	Tens	Units

Answer	

Freya collects 103 conkers.

> She gives 10 of them to a friend. How many does she have left?



Hundreds	Tens	Units

Answer

There are 37.2 children in the school.

> When a nearby school closes, 110 more children join. How many pupils are there now?



Hundreds	Tens	Units

A	. FLST	wer	

8. A shark has 295 teeth.

It loses 110. How many does it have left?



Hundreds	Tens	Units

Answer

Tuesday English

Using Different Types of Conjunction

L.O: To recognise and use different types of conjunctions.				
Choose a coordinating conjunc	tion from the	box to complete	these sentences.	
and	but	or	so	
1. I went to bed very late		I am tir	ed today.	
2. I listened to the weather f	orecast		put an umbrello	ı in my bag.
3. I enjoy playing hockey		it's not	my favourite sport	: .
4. We could go to the park _		to the	cinema.	
Choose a subordinating conjun	ction from the	e box to complet	te these sentences.	
although beco	ıuse	so that	even if	whenever
1. My dad has fixed my bike		I can	take it to the park	ε.
2. My brother is grumpy		he has g	ot to do his homev	vork.
3. I will always support my	local team,		they alway	s lose!
4. He goes abroad on holida	J,	he	doesn't like flying.	
Choose a pair of correlative cor	ijunctions from	m the box to co	mplete these sente	ences.
whether/or	either/or		ooth/and	not only/but
1. I'm not sure	I'n	n going to the m	atch	not.
2. My mum is	a b	rilliant doctor, _		she is a great runner too
3. The weather is forecast to	be	h	ot	humid.
4. We are having		pasta	cu	rry for dinner.

Conjunctions and Other Connectives

When?

afterwards

finally while then soon when until later first subsequently meanwhile last just then at that moment

Why?

as a result for this reason therefore consequently because

Opinion

happily luckily sadly fortunately unfortunately

But...

anyway aside from since on the other hand whereas although alternatively in spite of despite besides nevertheless however

And...

and also as well as moreover in addition





Identifying Adverbs

I know what adverbs are used for.

Adverb Word Bank						
	happily	tomorrow	next	soon	carefully	slowly

- 1. Look at the sentences below. Circle the adverb in each one.
 - a) He smiled cautiously.
 - b) She frowned angrily.
 - c) He walked to school quickly.
 - d) Next, she looked for her coat.
 - e) It would be his turn soon.



- 2. Complete the sentences below. Use the Adverb Word Bank to help you.
 - a) She ran _____ down the road.
 - b) It will be my birthday ______.
 - c) He wandered _____ home.
 - d) _____, she had to wrap her brother's present.
 - e) Her dad was coming to pick her up ______.

. . .

Adverbs

enthusiastically courageously gracefully happily defiantly doubtfully cautiously frantically elegantly cheerfully foolishly anxiously gladly gently cruelly angrily crossly inquisitively nervously quickly sadly safely shyly solemnly weakly merrily joyously irritably hungrily madly loudly

When?

beforehand afterwards punctually yesterday tomorrow recently before again early lately today often soon then never mow

yearly

How often?

occasionally constantly sometimes annually epeatedly regularly monthly always daily hourly usually often once never

Where?

everywhere downstairs around inside above away down here

How much?

completely entirely totally rather almost much very little

More useful adverbs

outside

there

appropriately consequently insufficiently additionally fittingly therefore suitably however hence

wherever

upstairs



Thursday English

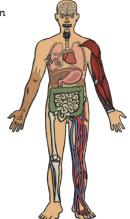
The Rosetta Stone

- 11 Whilst digging to expand their fort in 1799, a group of
- 20 French soldiers made one of the most important historical
- 30 discoveries of all time the Rosetta Stone. Named after the
- 40 town it was discovered in, the Rosetta Stone was created
- 52 over two thousand years ago and on it was the clue to
- 57 finally decoding ancient Egyptian hieroglyphics.
- 66 Hieroglyphics was a complicated way of writing in ancient
- 74 Egyptian times which used thousands of symbols. Some
- 83 of the symbols represented sounds, like our letters, whilst
- 92 others stood for whole words. Written on the Rosetta
- 104 Stone was one passage of text but it was in three different
- 111 languages: hieroglyphics, demotic (old Egyptian) and Greek.
- 121 It finally unlocked the secret of how to read hieroglyphics
- 131 because scholars knew what was being said in a language
- 135 we still speak today.



Amazing Facts about the Human Body

- 8 · Your heart beats around one hundred thousand times
- 19 per day. This means that in one year it has pumped
- 28 around three million litres of blood around your body.
- 35 · Your nose can tell the difference between
- 39 one trillion different smells.
- 49 The acid inside your stomach that helps you to digest
- 54 food can actually dissolve metal.
- 60 The smallest bone in the human
- 66 body can be found inside the
- 73 ear. It is called the stapes (or
- 79 stirrup) bone and it is only
- 83 around three millimetres long.
- 88 Your nose and ears continue
- 90 growing throughout
- 93 your entire life.
- 98 As well as having unique
- 103 finger prints, all humans also
- 107 have unique tongue prints!



Quick Questions



 Which word from the text means to 'make bigger'?



2. Why is it called the Rosetta Stone?



 How do you think scholars felt when the Rosetta Stone was discovered? Give a reason for your answer



4. How do hieroglyphics compare to the alphabet we use today?

Quick Questions



1. What do you think the word 'unique' means?



2. What are the two names for the smallest bone in the human body?



Give one reason why the author may have chosen to use bullet points to present this information.



4. Why do you think the author chose these particular facts?

Ozma and the Little Wizard

- 12 Once upon a time, in the beautiful Emerald City, lived an adored
- 25 girl called Princess Ozma, who was ruler of all that country, and a
- 35 little, withered old man known as the Wizard of Oz.
- 45 This little Wizard could do many strange and magical things,
- 58 but he was a kind man, with merry, twinkling eyes and a sweet
- 69 smile so, instead of fearing him because of his magic, everybody
- 71 loved him.
- 82 Ozma wished that all the people who inhabited the pleasant Land
- 95 of Oz should be happy and contented so one morning she decided to
- 109 make a journey to all parts of the country to check. She asked the
- 120 little Wizard to accompany her and he was glad to go.
- 132 "Shall I take my bag of magic tools with me?" he asked.



The Ultimate Jungle Survival Guide

- 11 To survive in the jungle, one of the world's harshest and
- 19 most inhospitable places, your two priorities are clear:
- 29 water and shelter. Without these, you won't make it a
- 31 single night.
- 41 Deep within the jungle, sources of fresh water are hard
- 53 to come by. Keep an eye out for any fallen leaves which
- 62 have caught pools of rainwater and drink them straight
- 74 away. You need to drink around 10 litres of water a day
- 81 to stay alive in this raging heat.
- 91 Before darkness falls, build a shelter high up off the
- 99 ground to avoid tigers and other predators overnight.
- 108 Banana leaves make an excellent shelter from the rain
- 116 and vines will hold together your hammock whilst
- 118 you sleep.



Quick Questions



 What did the Wizard of Oz want to take on the journey with him?



Find and copy three adjectives the author uses to describe the Wizard of Oz.



3. Why might Ozma and the Wizard need to use magic before they return?



Write one way that Ozma and the Wizard are similar and one way that they are different.

Similar:		
Different:		

Quick Questions



What are the two priorities of jungle survival?

1,)
27

Find and copy a phrase which the author uses to show that the jungle can be deadly.



3. Why do you think the guide advises to build a shelter 'before darkness falls'?



4. Sum up the key points of this text in 15 words or less.

Unusual Olympic Sports

- Throughout its history, the Olympic Games have held a
- range of strange and unusual competitions that we no 18
- 23 longer take part in today.
- Rope Climb: Stopped in 1932, this was an event in which 34
- competitors had to climb up a rope as quickly and as 45
- stylishly as possible. The most impressive winner was
- George Eyser in 1904, who won gold despite having a
- wooden leg! 65
- 75 Tug of War: At every Olympic Games until 1920, teams
- of eight men would have to pull their opponents six feet
- over a line on the floor. The British team, containing lots
- of police officers, were very good at this event. 106
- Swimming Obstacle Race: This event only happened in
- the 1900 Olympics. Swimmers had to climb over a pole 124
- 134 and a row of boats, before swimming under another row
- 140 of boats towards the finish line.





2. In what year did the only Swimming Obstacle Race take place?

Find and copy two adverbs which describe how

Quick Questions

competitors had to climb up the rope.



3. Why was George Eyser's gold medal win the 'most impressive'? Explain your answer.



4. How do these sports compare to Olympic events we see today?

Dazzling Diwali

- 10 On the island of Fiji, Kajri and Sadar were celebrating
- something special: Diwali, the Hindu festival of lights. It
- was the fifteenth day of the Hindu month of Kartika and
- the whole family had gathered together in their home to
- hold a small prayer. All family members were wearing
- their finest clothes as they honoured Ganesh, the god 58
- who removes difficulties, and worshipped Lakshmi, the 65
- goddess of wealth and good fortune. The house was
- decorated with hundreds of small oil lamps and candles, 83
- which shone brightly with reds, greens and yellows
- and filled the home with light. The lanterns showed the
- goddess Lakshmi that she was welcome to enter.



Quick Questions



1. Which adverb does the author use to describe how the lights shone?



2. Which Hindu month was this story set in?

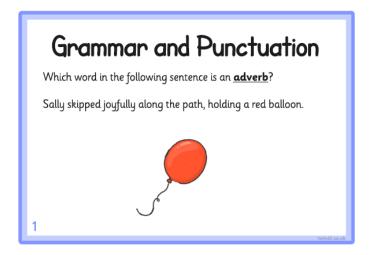


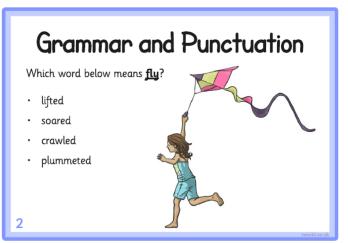
3. Find and copy two phrases which show that Diwali is a special time for the family.

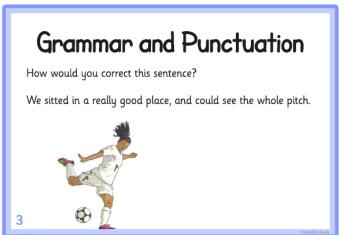


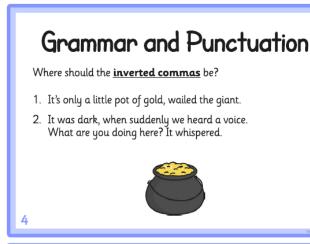
Discuss another time of year where a house can be decorated with colourful lights.

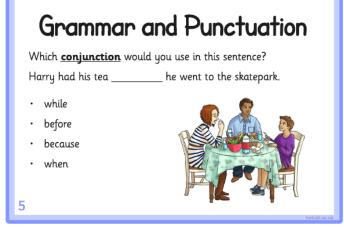
Friday English

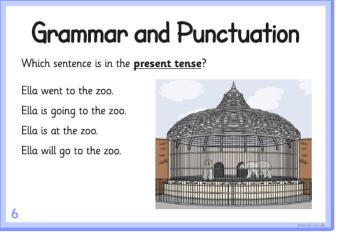


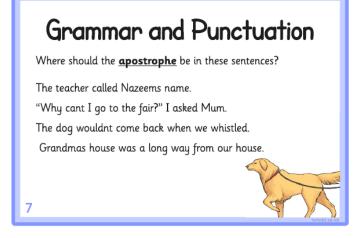


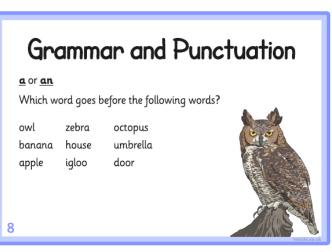




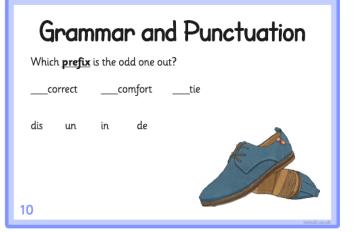


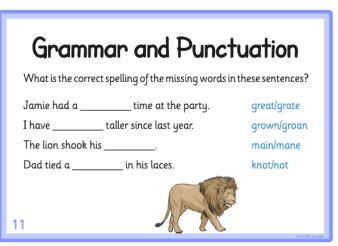


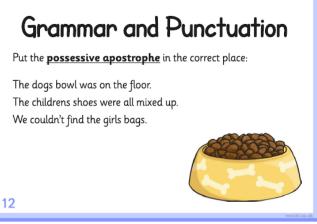


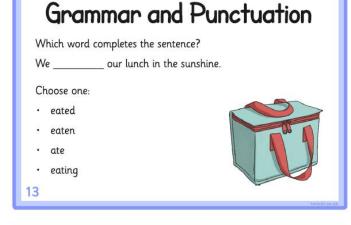


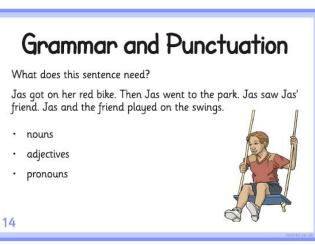
Grammar and Punctuation Which suffix is the odd one out? listen___ begin__ garden__ ing ed ner less



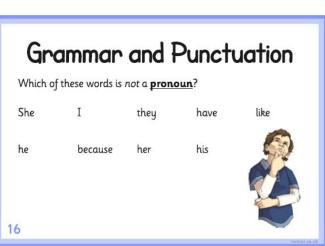








Grammar and Punctuation Where should the comma be? Later in the evening Bobby heard a dog barking. Soon after dinner Hannah tidied her room.



Grammar and Punctuation

Spot the $\underline{\textbf{conjunctions}}$ in the following sentences.

Kim was talking on her phone while she watched TV. The cat ran into the house because it was scared.

We went to the market so we could buy some fruit.



17

Grammar and Punctuation

Use the **preposition** that makes sense in these sentences.

I ate popcorn _____ the film.

Tim got changed ______ he got in the pool.

after during next before



18

Grammar and Punctuation

There is something wrong with these sentences. What should they say?

We was going to the shops.

I done a great painting.

She seen the new film.



19

Grammar and Punctuation

What punctuation mark is missing?

"Stop" shouted the policeman.

What time is the train arriving

Are you coming to my party? Nadin asked me.



20

Science

Information File

William Smith

William Smith was born in 1796 in Oxfordshire. Although he did not enjoy early recognition for his scientific work, by the time he died in 1839 he had been awarded the Wollaston Medal and was known as the 'Father of English Geology'. Geology is the name for the study of rocks.



William Smith

William's job as a surveyor meant that he had to examine the rocks around where he was working in great detail. He collected fossils that he found from his work sites, and he began to notice a pattern.

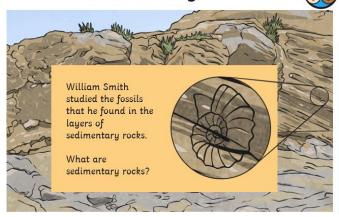
He noticed that the fossils found in sedimentary rock were always in a regular pattern from the bottom to the top of the layers of rock. He decided to search the whole country to see if this was the same everywhere in England.

He found that his ideas were correct, and fossils were in the same order in the rocks across the whole country. He realised that he could tell the age of a rock by looking at the fossils inside it.

He recorded his findings and used them to produce the first geological map of Britain, showing the age of the rocks on the ground around Britain.



Sedimentary Rocks



Sedimentary Rocks

Sedimentary rocks are formed by small particles of other rocks, minerals, plants and organic matter that are deposited over time, often at the bottom of a sea or lake.

These particles are known as sediment. The sediment is compressed, or squashed down, over many years before it forms into solid layers of rock.

Sedimentary rocks form layers which are known as strata. These layers can be seen in exposed cliffs.



Fossils

William Smith noticed that the fossils found in the strata of sedimentary rocks were always in the same order from the bottom to the top. He called this the 'Principle of Fossil Succession'.

- The layers of sedimentary rocks in a particular location contain fossils in a definite sequence, with the oldest fossils at the bottom and the youngest fossils at the top.
- William realised that the types of fossils found in rocks could be used to find out the relative age of the rocks. For example, if the layers in a rock contain fossils from the Cretaceous and Jurassic periods, then the rock is younger than one containing fossils from the Devonian and Silurian periods.



Fossils

However, he could not just use any fossils to find the age of rocks. Some animals and plants lived for a very long time, so their fossils would be found in lots of layers and would not help him. For example, horseshoe crabs have existed for 400 million years and are still alive today! Their fossils will be found in many different layers of rock.



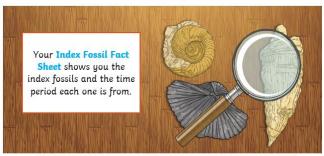
William realised it would be better to use the fossils of plants and animals that only existed for a short time, as the fossils are only found in single layers of rock.

Index Fossils



Geological Map

The fossils that are used to find the age of rocks are known as index fossils.



If William found a fossil like this one inside a layer of rock, which time period would it be from?

William Smith was the first person to create a geological map of England.

A geological map shows the ages and types of rocks found in a particular area. He created his map by touring Britain and identifying the fossils found in the surface rocks. He used these fossils to find the age of the rocks in the different areas he visited.

The colours on this geological map show the different types and ages of the surface rocks around Britain.

Where can you find rocks from the Cambrian and Silurian time?

Can you name two types of rocks that are found in Scotland?



How do Scientists Use Fossils Today?

Today, scientists like Dr Lisa White use tiny microscopic fossils, called microfossils or nanofossils, to find the age of rocks and soils.



How do Scientists Use Fossils Today?

In 2017, tiny fossils were found in Australia that are thought to be 3.5 billion years old!

Fossils today tell us about the animals and plants that have lived on earth that we might not know about otherwise.

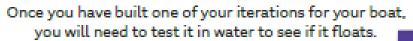
They also tell scientists about changes to the land



Design Technology



Iterative design - A boat that floats

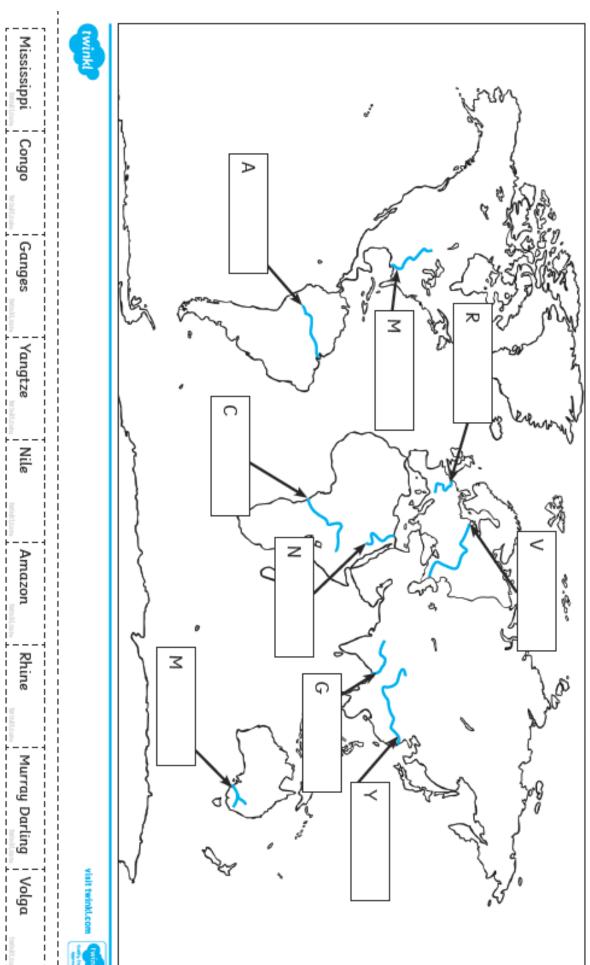




Fill in the following each time you test one of your design iterations.

Did the boat float?	YES	NO	
If you answered yes:			
ii you ariswered yes.			
How long did it float for?			_
Are there any ways you co	ould change t	the design to make it float lo	onger?
If you answered no:			
What was the main reaso	n why?		
How can you change the	design to rem	nove this problem?	
-			

Geography



World Map Rivers

Label the rivers of the world using the labels at the bottom of the sheet.

Mary Anning

Date of birth: Date of death:
is significant because



Interesting Facts	
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