

Year 5 Isolation work - Week 4

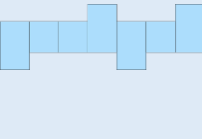
There are lots of activities planned here for you to do at home. This is a suggested timetable so please don't worry if you don't do it all – you just need to do what you can. If you can do a bit of English and maths every day, that would be fantastic as it will help you to be ready for when you come back to school.

There are also a range of topic and science resources that you may wish to do in the afternoons.

If you cannot print this off, please don't worry. You should be able to do most of the activities with a pen/pencil and paper and if you can't don't worry about it. If you've an A4 pad of paper or a notebook at home, that would be great.

If you cannot access the online resources, there are plenty of other activities here that you can do. Remember, there are lots of other things you can do that you don't need the internet for, like reading a variety of books/newspapers/magazines, practising your times tables, practising the year 5 spellings (available in your reading record), writing a diary entry for every day, artwork etc.

If you do some work that you're really proud of, you can send it us at year5@lps.hereford.sch.uk for us to look at!

DAY	ENGLISH	READING More activities below!	SPAG SEE BELOW FOR SPAG MATS!	MATHS Please do not feel you need to complete all the activities!
MONDAY	<p>In English this week you will be working towards writing a biography.</p> <p>LO: To identify features of a biography.</p> <p>https://classroom.thenational.academy/lessons/to-identify-features-of-a-biography-c4w3jt</p>	<p>The suitcase kid by Jaqueline Wilson.</p> <p>LO: To engage with a text.</p> <p>https://classroom.thenational.academy/lessons/to-engage-with-a-text-64vk4c</p>	<p>Choose 5 different year 5/6 spellings each day.</p> <p>Today, write the words in the shape of a pyramid!</p> <p>D DO DOG</p>	<p>Click on the link below and scroll down to 'Week 4 – long division using formal written methods'.</p> <p>Complete the activities for Monday.</p> <p>You don't need to print out the work – you can just copy out the questions onto paper.</p> <p>Just do what you can!</p> <p>https://myminimaths.co.uk/year-5-mini-maths/</p>
TUESDAY	<p>LO: To gather information on an inspirational figure.</p> <p>https://classroom.thenational.academy/lessons/to-gather-information-on-an-inspirational-figure-74u68d</p>	<p>LO: To answer retrieval questions.</p> <p>https://classroom.thenational.academy/lessons/to-answer-retrieval-questions-60u30r</p>	<p>Write your words out using different sizes of letters to help you remember the letters in the word.</p> <p>E.g. PaInTiNg</p>	<p>Complete the activities for Tuesday.</p> <p>You don't need to print out the work – you can just copy out the questions onto paper.</p> <p>Just do what you can!</p> <p>https://myminimaths.co.uk/year-5-mini-maths/</p>
WEDNESDAY	<p>LO: To plan a biography.</p> <p>https://classroom.thenational.academy/lessons/to-plan-a-biography-c8wp6d</p>	<p>LO: To answer inference questions.</p> <p>https://classroom.thenational.academy/lessons/to-answer-inference-questions-c5hpct</p>	<p>Draw the shape of the words today!</p> <p>display</p> 	<p>Complete the activities for Wednesday.</p> <p>You don't need to print out the work – you can just copy out the questions onto paper.</p> <p>Just do what you can!</p> <p>https://myminimaths.co.uk/year-5-mini-maths/</p>

THURSDAY	<p>LO: To write a biography (part 1).</p> <p>https://classroom.thenational.academy/lessons/to-write-a-biography-part-1-cmwkgr?activity=video&step=1</p>	<p>LO: To analyse questions.</p> <p>https://classroom.thenational.academy/lessons/to-analyse-language-69hk0c</p>	<p>Write each word in fancy letters!</p> <p><i>ITALICS</i> Cursive Ghostly Bubble</p>	<p>Complete the activities for Thursday.</p> <p>You don't need to print out the work – you can just copy out the questions onto paper.</p> <p>Just do what you can!</p> <p>https://myminimaths.co.uk/year-5-mini-maths/</p>
FRIDAY	<p>LO: To write a biography (part 2).</p> <p>https://classroom.thenational.academy/lessons/to-write-a-biography-part-2-6njpad</p>	<p>LO: To analyse a character's emotions.</p> <p>https://classroom.thenational.academy/lessons/to-analyse-a-character-emotions-61j6ad</p>	<p>Write the word three times and in different colours.</p>	<p>Complete the activities for Friday.</p> <p>You don't need to print out the work – you can just copy out the questions onto paper.</p> <p>Just do what you can!</p> <p>https://myminimaths.co.uk/year-5-mini-maths/</p>

READING: You can choose to do one of these comprehensions – or both!

The Sun

The Sun is a star and is at the centre of our solar system. That is why it is called a solar system. The word solar means 'relating to the Sun'. The planets in our solar system stay together because the Sun is so big its gravity keeps us all locked in orbit around it.

Making Energy:

The Sun provides almost all the energy, light and heat needed on Earth and it mainly uses hydrogen and helium for this. Energy is made at its core in the centre of the Sun's sphere. Around the core is the radiative zone which carries the energy to the next layer – the convection zone. It takes about 170,000 years for the energy to move from the core to the convection zone! The photosphere is at the Sun's surface and the energy gets to there from the convection zone in large bubbles. From here, the energy escapes (through the chromosphere and corona) and some of it comes to Earth. It takes about 8 minutes for heat to reach us from the Sun.



Did you know?

Surface temperature: 5505°C

Distance to Earth: 149.6 million km

Radius: 696,342 km

Circumference: 4,366,813 km (2,713,406 miles)

Mass: 1,989,000,000,000,000,000,000,000,000kg

(About 1.3 million Earths could fit inside the Sun)

Lifespan:

The Sun is actually a yellow dwarf star and was created about 4.6 billion years ago. The Sun will eventually run out of energy and fade, but don't worry...this won't be for another 4.5 to 5.5 billion years yet! Before the Sun eventually fades, in an unimaginable time from now, it will get bigger and turn into what is called a 'red giant'. In 1.1 billion years from now, the Sun will be 10% brighter than it is today. This will make Earth a bit like a greenhouse – hot and moist. 3.5 billion years from now, it will be even brighter than that: at 40% more than it is today. This will be so hot that the oceans will boil and the ice will melt. It's safe to say that there will be no life on Earth by then, but with space travel already making new discoveries and exploring other planets, where do you think humans will be by then?

Questions

1. What gases is the Sun mainly made from?

2. How long does it take energy to reach Earth from the Sun?

3. How far away is the Sun from Earth?

4. What type of star is the Sun now?

5. List the different layers of the Sun from the centre to the outside.

6. What keeps our solar system of planets orbiting the Sun?

7. Solar means 'relating to the Sun'. Think of another example where we use the word 'solar'.

Questions

8. Will the Sun last forever? If not, why not?

9. In the final paragraph it says that Earth will become 'a bit like a greenhouse'. A greenhouse is warm and moist inside because of the glass that lets heat and light in and keeps it in. Our Earth is not surrounded by glass, so what will let the heat and light in and keep it in?

10. Look at the final line - where do you think humans will be by then?

The Moon

Do you ever look at the Moon at night and see the Moon shining down and lighting up the night-time town? Do you wonder what it would be like to visit the Moon or wonder why it shines so bright? Read on to find out all about our planet's moon.

Moon and Sun

The Moon shines very brightly, but it is only reflecting the light of the Sun because it cannot make its own light. When the Sun comes back up for our daytime, it appears as if the Moon has disappeared, but it doesn't, it's just harder to see because the sky is so bright. Sometimes, if you look carefully, you can see the Moon in the sky during the daytime.

Orbit

The Moon is the Earth's only natural satellite (that means something that orbits a larger object). It takes the Moon about 28 days to go around the Earth once; we call this a lunar month. During this time, we only ever see the same side of the Moon as it rotates slowly whilst it moves around us. The side we see is called the 'near side'.

During its orbit, the angle between the Earth, Moon and Sun changes so the part of the Moon that is lit up cannot always be seen from Earth. This is what gives us the phases of the moon, when it is waxing (growing bigger) and waning (getting smaller) with shapes including crescent and gibbous.

The eight phases of the Moon are:

			
First Quarter	Waxing Crescent	New Moon	Waning Crescent
			
Third Quarter	Waning Gibbous	Full Moon	Waxing Gibbous

The Moon



Moon Facts

- Average temperature in the day: 107°C
- Average temperature at night: -153°C
- Distance from Earth: 238 857 miles (384 403km)
- Diameter (distance from one side to the other): 2160 miles (3476km)
- Length of Day: 708 hours

What Is It Like on The Moon?

The Moon is extremely hot during the day but very cold at night. The surface of the Moon features a vast number of craters that have occurred after collisions with comets and asteroids. The Moon has many mountains, the tallest of which is Mons Huygens. It is 4700 metres tall; half the height of Mount Everest.

The Moon does not have an atmosphere like Earth does and therefore it is not possible to breathe on the moon without a special suit and tanks containing oxygen. The moon is also a very dry place and was thought to be completely without water. However, about a decade ago, traces of water were discovered. Some people now believe that humans may one day be able to live on the Moon.

Only 12 people have ever walked on the Moon. The first person to do this was Neil Armstrong on 20th July 1969. When he first walked on the Moon, he famously said, 'That's one small step for man, one giant leap for mankind'. There were two other men on the mission: Edwin 'Buzz' Aldrin and Michael Collins. Together, they formed the crew of the Apollo 11 mission. It took them just over three days to get there from Earth, blasting off in a Saturn V rocket from the Kennedy Space Centre, USA on July 16th 1969.

You may have seen a film of people bouncing, rather than walking on the Moon. It isn't quite the same as walking on the Earth because the Moon's gravity is weaker than the Earth's gravitational force so people take longer to return to the surface when they go up in the air.

Did You Know...?

'Selenophobia' is the fear of the Moon.

1. What word can be used to complete the sentence below:

The Moon cannot make its own... Tick **one**

- ☐ gravity
- ☐ water
- ☐ light
- ☐ heat

2. How far away is the Moon from the Earth in km? Tick **one**.

- ☐ 3476km
- ☐ 384 403km
- ☐ 2160km
- ☐ 238 857km

3. Explain what a lunar month is.

4. What word is used to describe when the Moon appears to be getting smaller?

5. What is selenophobia?

6. Why can humans not live on the Moon (at the moment)? Use evidence from the text to support your answer.

7. Who was the first man to walk on the Moon?

8. Explain in your own words what you think Neil Armstrong meant when he said, 'That's one small step for man, one giant leap for mankind.'

9. Would you like to visit the Moon? Explain your answer fully using evidence from the text to support your answer.

Extra maths challenges

Maths Mastery Number and Place Value Rounding

4

Adam writes two 6-digit numbers. He rounds the numbers to the nearest 100 000.

He adds the rounded numbers together. Then, he adds the original numbers together and rounds the answer to the nearest 100 000.

Will he get the same answer?

Does it depend on the numbers?



Maths Mastery Number and Place Value Rounding

5

Lily says, "When you round a number to the nearest 1000, the important digit is the thousands digit."

Explain why Lily is not correct and write a better statement to explain how to round to the nearest 1000.

Share your explanation with a partner and make any improvements to your own explanation as a result.



Maths Mastery Number and Place Value Rounding

6

Jiang and Adam work together.

Jiang has a number. He writes down 34 700 and says that this is the result when his number is rounded to the nearest 10. What is the largest possible number that Jiang could have chosen?

Adam has a number. He writes down 580 000 and says that this is the result when his number is rounded to the nearest 100. What is the smallest possible number that Adam could have chosen?

Work with a partner and set each other similar challenges.

Maths Mastery Number and Place Value Rounding

8

Adam uses a standard dice. He rolls the dice 5 times to create a 5-digit number. He rounds the number to the nearest 1000.

He repeats this 30 times and finds that more of the numbers round down than round up. He expected half of the numbers to round up and half to round down.

Can you help Adam explain why this is the case?



Extra maths challenges

Negative Numbers

4.

Adam writes the calculation: $-5 + 18 = 13$

He writes a real-life example with money to illustrate the calculation.

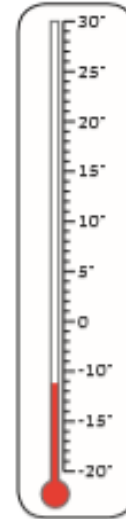
"I owe my dad £5. I sell a computer game to a friend for £18. After I pay back my dad, I have £13 left."

He writes another calculation: $16 - 19 = -3$

Write a real-life example with money to illustrate the calculation. Share with a partner and make any improvements.

Negative Numbers

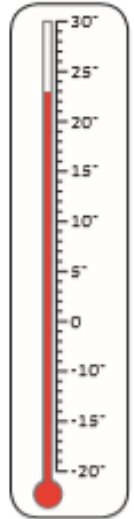
5.



Jiang has two thermometers. He places one in a bowl of ice with some salt and he keeps the other on the table.

Write two calculations with explanations to show the difference in temperature between the salted ice and the room.

Write your own scenario with two thermometers, where both temperatures are negative, and explain with calculations.



Negative Numbers

6.

Lily writes the following linear sequences:

-13, -9, -3, 1, 5, 9, 13

16, 9, 2, -3, -10, -17

29, 18, 7, -6, -15, -24



Can you spot and explain the errors that Lily has made?

Write some incorrect sequences for a partner to check.

Negative Numbers

7.

Adam says, "When you count backwards in tens from a positive number through zero, the ones digit will always stay the same."

Explain why Adam is incorrect, but when he might be correct.

Compare your answers with a partner and make any improvements to your own explanation.



Year 5 Autumn Term 1 SPaG Mat

4

Can you add a modal verb in the following sentence:

If he plays well, Andy Murray
_____ win the next
Grand Slam tennis tournament.



Write TWO different adverbs that describe the verb in the sentence.

Furious that the doorbell had woken him, Larry answered the door _____.

Jumping for joy, the actress collected her award
_____.

Clumsy Mr Whoops has lost some opposite words. Can you help him using prefixes?

mature

regular



Can you think of a preposition, a verb and a collective noun beginning with...

	preposition	verb	collective noun
the letter b?			
the letter f?			

Can you think of the word to match the definition?

(CLUE: They contain a 'ch' that sounds like a 'k')

A bounced back sound _____

A place to go to get medicines _____

A person in a book or film _____

Rewrite the sentence so that the subordinate clause is at the beginning. Don't forget the correct punctuation.

Adam went on the biggest slide in the water park since he was feeling brave.



Year 5 Autumn Term 1 SPaG Mat

5

Add a modal verb to the following sentence:

I _____ eat all of the gigantic ice cream sundae.



Write these homophone words in the correct sentences:

morning mourning

Yesterday _____, I went to football training.

After the tragic accident, the grieving widow was in _____.

Sort these words into the table:

pronoun	verb

you went am his

Add another word to each column.

Complete these present perfect sentences using the correct form of the verbs:

Mrs Green _____ lived next door for 20 years.

We _____ finished our school project.

Mr Whoops has got in a terrible muddle with his verb prefixes. Can you help him add a prefix to these root words?



connect _____

inform _____

Rewrite the sentence below in Standard English.

Alex didn't get none Valentine's cards. He should of got his mum to send him one!



Year 5 Autumn Term 1 SPaG Mat

6

a
Add an appropriate fronted adverbial to this sentence followed by the appropriate punctuation mark:

_____ the rainbow parrot squawked loudly.



b
Can you write a 'cian' word to match these definitions?

A person who plays a musical instrument. _____

A person who performs tricks for a living. _____

A person who solves equations.

c
Mr Whoops has accidentally jumbled up THREE determiners. Can you help him to unjumble them?

AMNY EEYVR MEOS



d
Write the subordinating conjunction that fits best into each sentence:

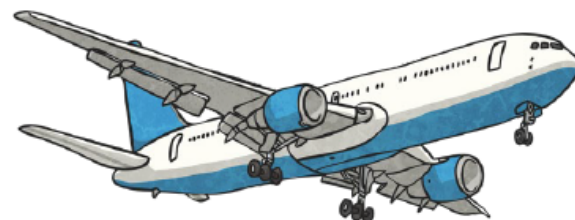
_____ climbing the tallest tree, the chimpanzee swung in the high branches.

Brecon United lost the match
_____ most of the players were injured.

e
Write two words into each section of this table:

prepositions	adverbs	determiners

f
'Fly' can be used as a verb and a noun. Write a sentence where 'fly' is used as a noun.



Always check with adult before doing any science experiments!

Science

1. Flying Plastic Bag



Remember how the Harry Potter cast levitated their feathers using the 'Wingardium Leviosa' charm? Now you can too with the power of static electricity!

What you will need:

- a plastic rod
- a piece of cloth
- a light plastic bag

Steps:

- Rub the surface of the rod with the cloth for 40 seconds
- Flatten the plastic bag and rub the cloth against its surface for 40 seconds
- Release the plastic bag and watch it levitate as you wave the rod below

How it works: (Hint: It's not magic!)

The rod and cloth gain become negatively charged after you rub them with a cloth. As like charges repel, the plastic bag appears to repel.

2. Roll A Can With Static electricity



With static electricity, you can even make a can roll around without actually touching it!

What you will need:

- an empty can
- a plastic rod
- a piece of cloth

Steps:

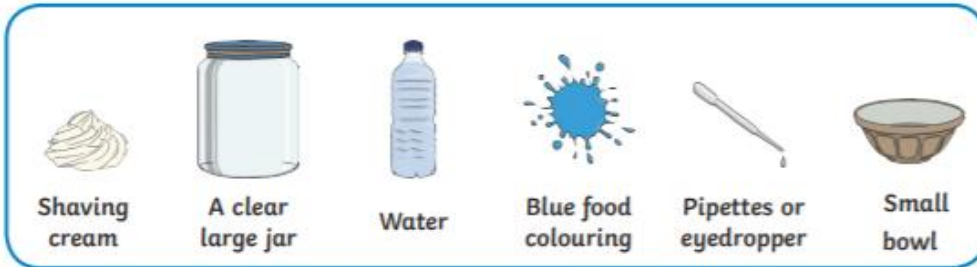
- Rub the surface of the rod with the cloth for 40 seconds
- Place the can on a flat and smooth surface
- Hold the cloth close to the can without touching it and watch as it follows the movement of the rod!

How it works:

Rubbing the rod with the cloth creates static electricity. The rod, which has gained electrons, becomes negatively charged. Hence the can, which is positively charged, is attracted to it as opposites attract.

Rain Cloud in a Jar

You will need:



Method:

1. Fill the large jar with water, leaving 2 inches at the top.
2. Add the shaving cream to the top of the water until it reaches the top of the jar.
3. Next, add 1 cup of water to the small bowl and 3 drops of blue food colouring.
4. Mix the water and food colouring together.
5. Use the pipette to add drops of the water mixture to the top of the shaving cream cloud.
6. Continue adding the water mixture until you begin to notice the raindrops begin to break through the bottom of the cloud.



Changing State

below 100°C	evaporates	condenses	freezes
heat	cool	melts	0°C
	0°C	cool	heat
			100°C

Using the words above complete the sentences below.

If you _____ water to a temperature of _____, it _____ to form water vapour.

If you _____ water vapour to a temperature of _____, it _____ to form water.

If you _____ ice to a temperature of _____, it _____ to form water.

If you _____ water to a temperature of _____, it _____ to form ice.



Amazing Matter

Tar pitch, the material used to coat roofs and roads, is actually a liquid that flows incredibly slowly. Each drop takes approximately ten years to form and then drop. Use what you know about matter to help the mouse to find the cheese. Colour the squares about liquids red, the squares about gases green, and the squares about solids yellow. Then draw a line on the yellow path for the mouse to get to the cheese.



liquid	solid	has a definite size but no shape			water takes this form above 100°C
has a definite size and shape	gas	has no definite size or shape		can be poured	
		water takes this form below 0°C	takes the shape and size of any container		things take this form when they freeze
takes the shape of the container but not the size		water changes to this state between 0°C and 100°C	water changes to this state above 100°C		
	solids take this state when they melt				liquids take this state when they evaporate

You could also try to find out:

- what other slow-flowing liquids exist;
- what the official definitions of solids and liquids are;
- what speed ketchup flows at;
- if you can set up a slow-flowing liquid demonstration.



Changing States - Reversible or Irreversible

Name: Date:

heating	-	H
cooling	-	C
never	-	N

For each of the changes below fill in the empty box to show how the change can be reversed if possible. If the change can be reversed by heating use a **H**, if the change can be reversed by cooling use a **C** and if the change can never be reversed use an **N**.

Water turned to ice in the freezer	
Flour, eggs, sugar and butter made into a cake	
Bread made into toast	
Chocolate melted in a pan	
Butter melted in the sun	
Jelly hardened in the fridge	
Wood burnt on the fire	
Ice cubes melted	

