

Transition

Summer Tasks 2020



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Library Challenge

Visit the Library of Birmingham






Describe what you found out at the library.

Computing Challenges



Computing Challenge One: Collage Time

To complete this challenge you will need to read through the Computing knowledge organiser.

Knowledge Organiser – Computing			
Word	Image	Explanation	Example
Input device		An input device is something you connect to a computer that sends data into the computer.	<ul style="list-style-type: none"> To put data in a computer you use a keyboard. An example of an input device is a mouse. If you are singing you would use a microphone to input data into the computer
Output device		An output device is something you connect to a computer that has information sent to it.	<ul style="list-style-type: none"> A monitor outputs data so you can see it. An example of an output device is a printer. If you were listening to music you would use a pair of headphones to listen to the output.
Process Processing processed		Once we have entered text, numbers, images, music and video into the computer we can do stuff to it. E.g. edit, sort , search and calculate.	<ul style="list-style-type: none"> I need to process the exam results to see who got the best score. Processing the data for all the exam results will take a long time. I have processed the video you gave me here is the finished thing.

Create a collage, your collage must have two sections

One section labelled input devices and the second side labelled images output devices.

Input devices
Output devices



You don't need a printer, computer or access to the internet to complete this task

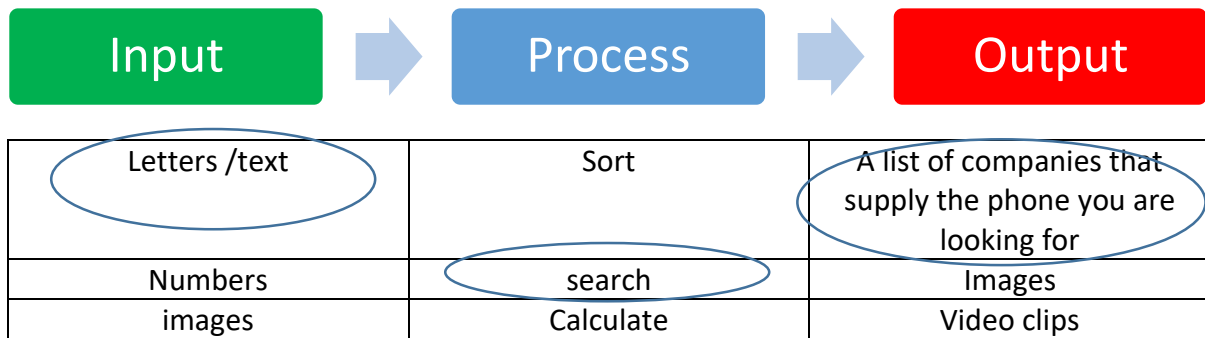
My top tip is to go to Argos and pick up a catalogue.

You can use the pictures in the catalogue for your collage.



Computing Challenge Two: Thinking Time

- a. You are searching for a new phone, what would happen? The answers have been circled for you.



- b. You are using a calculator to add up 2 large numbers, what would happen?



.....

.....

.....

You have a list of names and want them in alphabetical order. What would happen?



.....

.....

.....

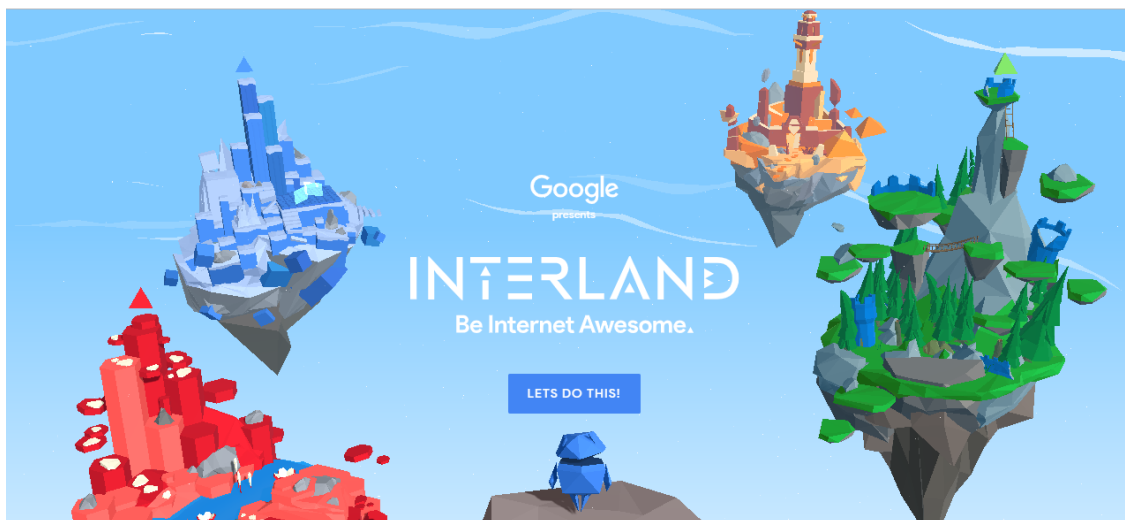
Computing Challenge Three: Be Internet Awesome

You are about to embark on a quest to become a confident user of the online world

Enter the four realms of Interland and complete the challenges.




Only the most awesome of you will succeed!

https://beinternetlegends.withgoogle.com/en_uk/interland



Now your challenges are complete

Produce something that shows me what you have learned from your adventures in Interland; it could be a poster or a PowerPoint the choice is yours!

Word	Image	Explanation	Example
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Maths Fun in the Sun!



Hillcrest School

MATHS FUN IN THE SUN!

Complete the cool maths challenges ready to share when you start Year 7!

Don't forget your...

NUMERACY
NINJAS

1. Temperature

Pick any five days in the holiday—write down the date and temperature (use a phone, computer, the news or newspaper)

- What was the highest/lowest temperature?
- What was the range of temperatures?
- What was the average temperature (and which average)?
- What is temperature measured in? Can you convert it to another temperature measure?

2. Shapes

Look around your home or when you are out and about, what shapes can you see?

- Are they 2D or 3D shapes? What is the difference?
- How many vertices/edges do the 3D shapes have?
- Draw the shapes (and their nets if you can) below or on a separate sheet

3. Counting Letters

Look at signs around you, on shops, road signs, anywhere!

- What is the longest/shortest word you can see?
- What do you think the most popular letter is and why?
- What is the longest mathematical word that you know? What does it mean?
- What is the most interesting mathematical word you know?

IMPRESS YOUR FRIENDS...

- Think of a number
 - Double it
 - Add 10
 - Halve it
 - Take away you original number
- Is your answer 5?

4. Shopping!

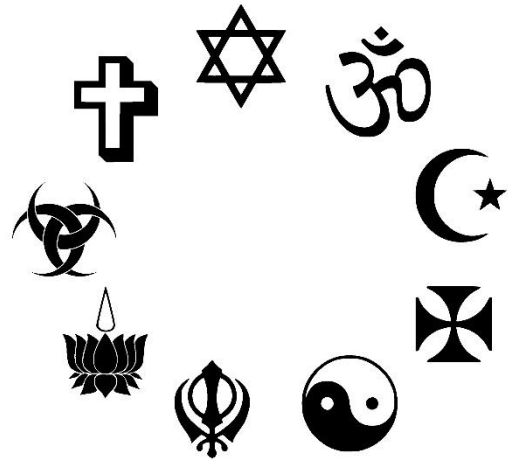
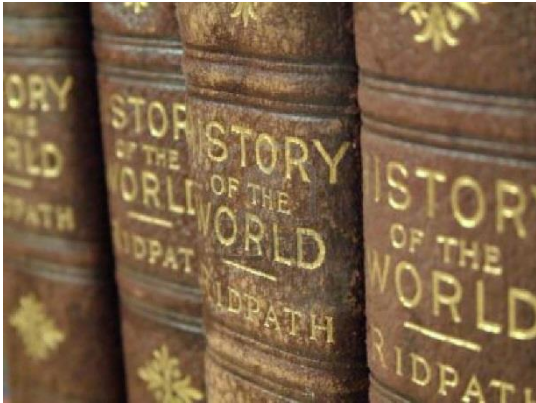
What is your favourite treat?

- Find the cost of this treat in 2 different shops and compare the prices.
- How much does your treat weigh? Can you work out the price per gram?
- Find your treat in a bigger or smaller size, what is the new price per gram?
- Which one is the best value for money? How do you know this?

BONUS TIME! THINK ABOUT YOUR FAVOURITE AREA OF MATHS OR MATHEMATICAL EXPERIENCE READY TO SHARE IN YOUR NEW MATHS CLASS!

Humanities Challenges

History, RE, and Geography



HUMANITIES SUBJECTS

When you come to Hillcrest, you will study three humanities subjects. Humanities are subjects which look at humans and their lives: how people interact with each other and with the world. The humanities subjects you will study are history, geography and religious education.

History

In history, we study the past. When you come to Hillcrest, you will study lots of different time periods.

For your summer task, we would like you to visit the website of a historical place or museum and research 3 historical objects or places that interest you. This can be in Birmingham, in the UK or abroad – it is up to you! We would like you to make some notes about what you found out in the table below.



Here are some suggestions of websites you could use to help you with your research:

- <https://virtualmuseums.io/>
- <https://blog.britishmuseum.org/how-to-explore-the-british-museum-from-home/>
- <https://www.birminghammuseums.org.uk/bmag/virtual-tour>
- <https://www.bclm.co.uk/history-at-home/history-at-home/1.htm>

You could search online using the following hashtag: #museumfromhome

#museumfromhome What did you find out?	
Draw a quick sketch of the historical object or place	Describe what you found out about this historical object or place

What do you already know about History? Write down an interesting historical fact that you learnt in primary school here



RE

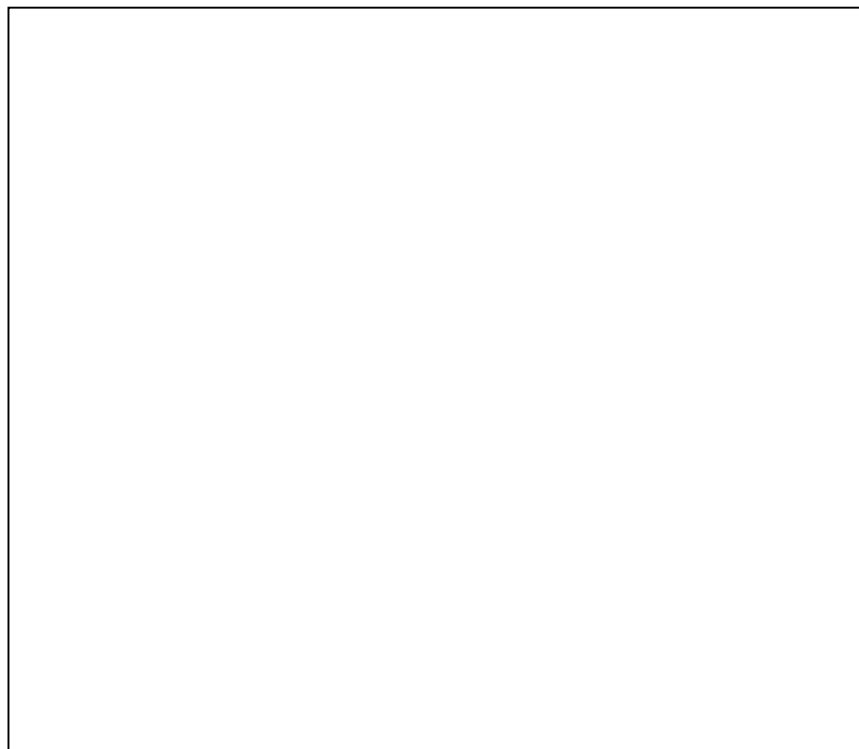
For RE, we would like you to find out about a local church. If you are a practising Christian, you could use the church you attend or a different church. If you are unsure what your local church is, you can use this site to find out:
<https://www.achurchnearyou.com/parishmap.php>.

What is the name of the church?

Churches are usually named after saints. In Christianity, a saint is a person who is believed to be a very holy person. Find out some information about the saint your local church is named after. E.g. when were they alive? Why are they considered holy or special in Christianity? What good things did they do during their life?



In RE, you will learn about a range of different religions, including Christianity, Islam, Sikhism, Judaism, Hinduism and Buddhism. Go online and find a religious building in your local area that is the place of worship of a religion other than Christianity. What is it called? Which religion does it belong to? Draw a picture of what it looks like.



Religious organisations often do good work in the community as well as providing space for worship of their faith. For example, they might raise money for Christian Aid or Islamic Relief, or they might organise events such as summer fairs or flower shows that are open to everyone in the community. They might provide assistance for people who are homeless or in need. For the church or the other religious building you have looked at, can you find out about something they do in the community? Make sure it is about general good work rather than religious worship.

Geography

Maps are an important tool for geographers, they are useful in helping us to understand the world around us. A map doesn't show things as they really are, instead it uses a symbol to represent the real life object.

Examples:



= Car Park

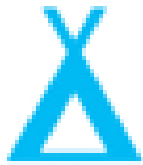


= Museum



= Castle

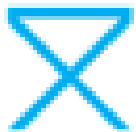
What do you think the following symbols mean?



= _____



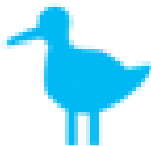
= _____



= _____

Sch

= _____



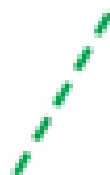
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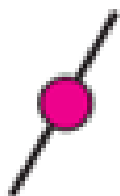
= _____



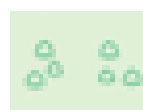
= _____



= _____



= _____



= _____

Now you have seen a range of real symbols, see if you can create your own symbols for the following features. To be a good symbol it should look a little like what it is meant to be as well as being easy to draw and easy to remember. They also can't be too big, otherwise they would take up too much space.



Church



Your symbol



Wind turbines



Your symbol



Post Office



Your Symbol



Swimming Pool



Your symbol



Hills



Your symbol



Lake



Your symbol



Shopping centre



Your symbol

You have seen a range of symbols and have even created your own. Here is an OS map of Birmingham city centre. What symbols can you see? Can you find any of these places in real life or online (use Google Maps)? If you can, be sure to take a photograph to share.

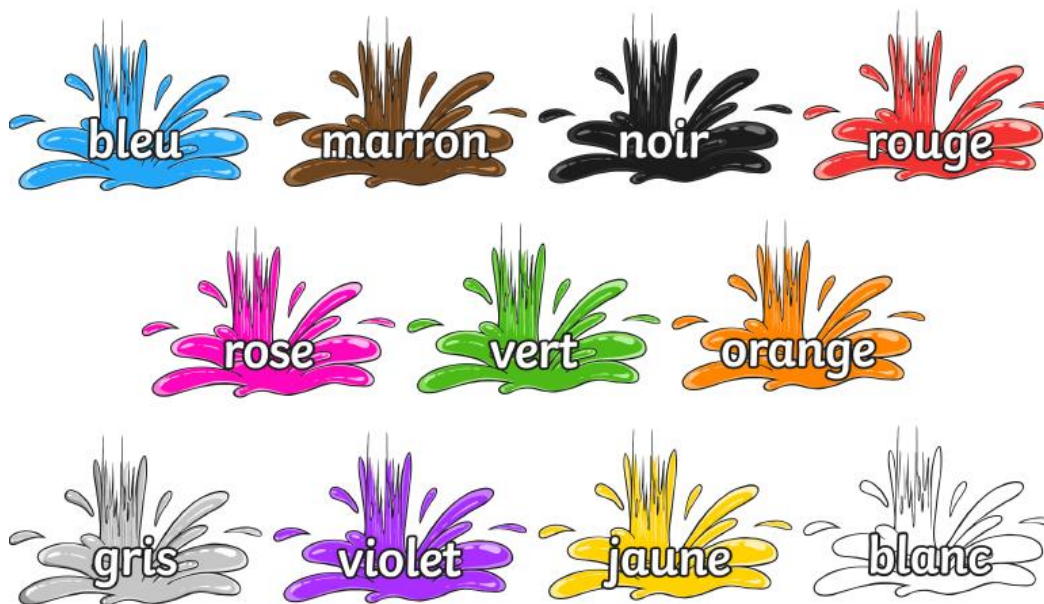


French



French

Les couleurs



1. Watch these 2 video clips below to learn how to pronounce the colours

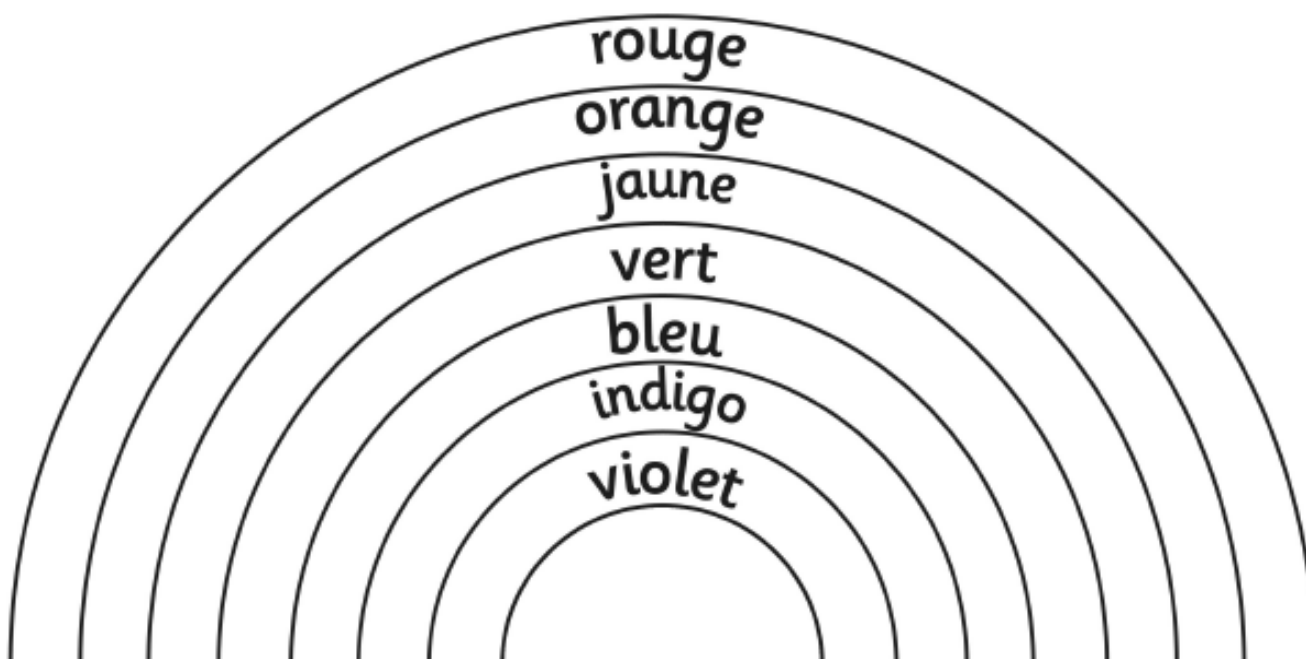
https://www.youtube.com/watch?v=kzR_d6uJkb8

<https://www.youtube.com/watch?v=laaSprb0IXk>



2. Now colour in this rainbow in the correct colours.

Arc en ciel



3. Now find the names of the French colours in the word search.



4. Want to learn more French?

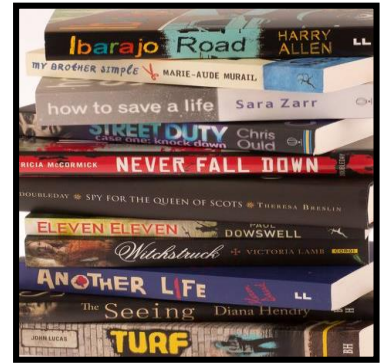
Whether you are a beginner or already know some French, you could use **duolingo.com** to learn some more French words and practise saying them correctly. You can do this on a computer or download the app on your phone.

Bonne chance!

English Challenges



English Summer Homework for Year 6



Hand this work in to your English teacher when you have your first lesson.

Task 1: Decide on your favourite character.

Who is your favourite character from fiction and why?

- Draw a picture of your favourite character
- Write a short summary that explains why you like them so much.

Task 2: Write a book review.

Write a book review about the book you enjoyed reading the most over the summer holiday. Things to include:

1. Book: Title and author and your name
2. Theme: What is the book about? What themes does the book address?
3. Characters: Who are the main characters and what are their interests and relationships? How do the central characters change and develop through the novel?
4. Style: Common on the author's written style e.g. use of any unusual language, description, dialogue, setting, mood, atmosphere etc
5. Personal Response: What did you enjoy (or dislike) about the book? Pick a scene or an example to show your comment. Would you recommend the book to someone else? If so, why?
6. Audience and Rating: What audience would you recommend this book for? Rate the book on a scale from 1 = boring and 5 = interesting and fascinating

Remember, your review is aimed at other students your age, so try to make your review engaging and entertaining.

Task 3: Write a poem.

Write a poem about yourself or something important to you.

Good luck.

Design Technology Structures



Structures

What is a structure?

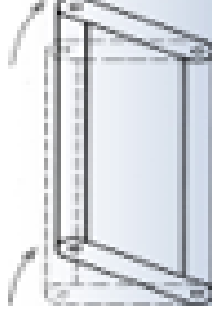
Give 3 examples of structures

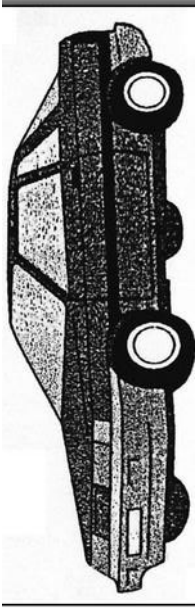
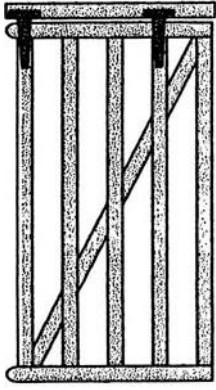
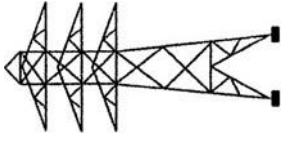
A definition of a structure

'A structure is

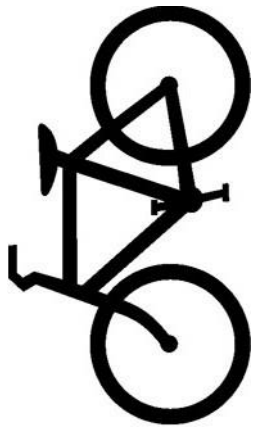
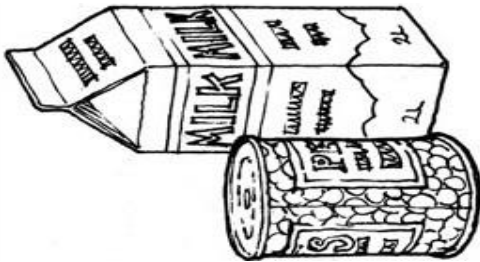
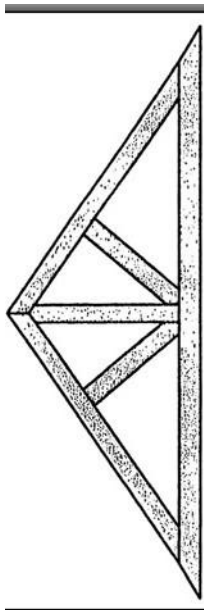
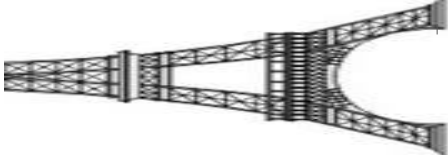
How would you make this structure stronger?

Which shapes / structures are more stable ?

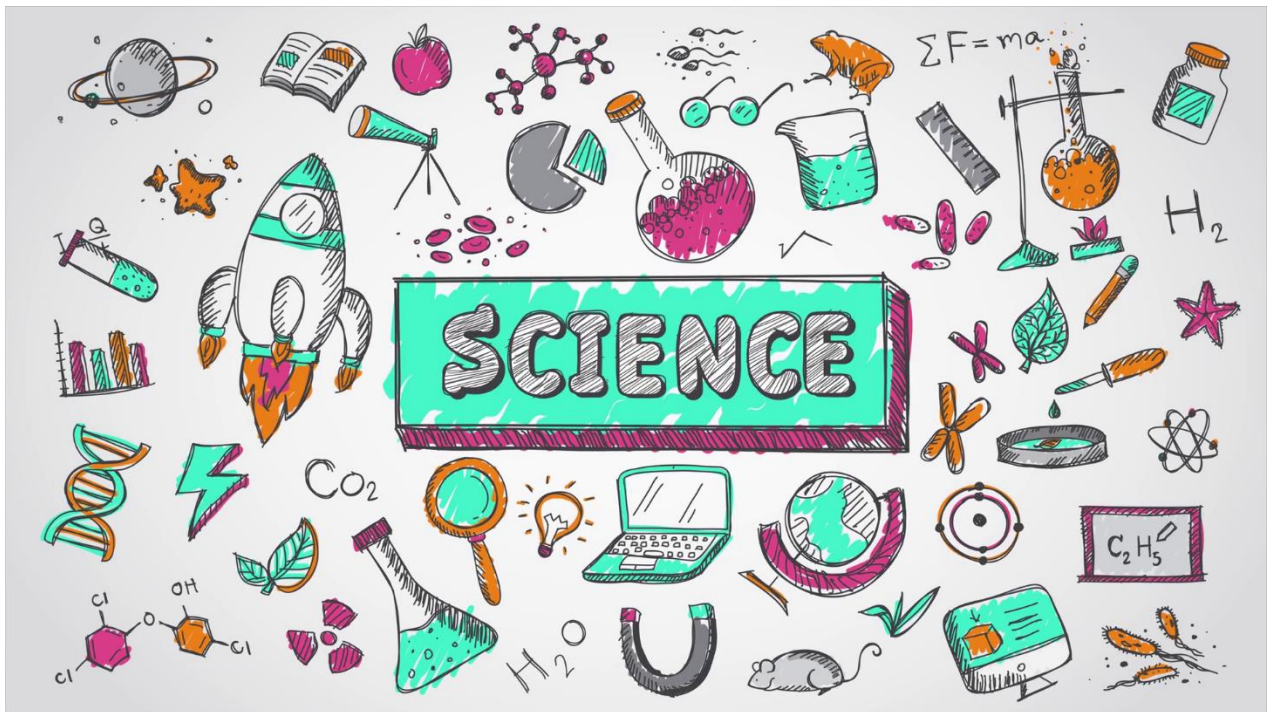




What types of structures are these?



Science Challenge



Birthday chemistry

Every day, scientists do investigations and make observations to answer questions in chemistry. These scientists are called chemists. Chemists work out why materials have certain properties. They find out how materials change in chemical reactions. They create new materials, with perfect properties for particular purposes.

What to do

- Go to this website: <http://www.rsc.org/learn-chemistry/collections/chemistry-calendar>
- Click on your birthday.
- Fill in the form to show others in your new class why your birthday is important in chemistry.

Hints

- Fill in the form in your own words.
- If there is a word you don't understand, ask someone for help, or look it up in a dictionary or on the Internet.
- You can draw a picture or find one on the Internet, print it out, and stick it on the form.

Why is my birthday important in chemistry?

Name: _____

My birthday is on: _____

The name of my chemist is: _____

My chemist is from this country: _____

This is what my chemist did: _____

Here is a picture of my chemist, or of something my chemist discovered.

Materials matter

Chemists make materials that are suitable for their purpose. In this activity, you will work out why objects are made from certain materials.

What to do

- Find five objects at home that are made from different materials.
- Fill in the table to show why the objects are made from their materials. The first line is already filled in.

Object	Material the object is made from	Properties of the material that make it suitable for the object
frying pan	metal	<ul style="list-style-type: none">good conductor of heatrigid

Sugar or salt?

In this activity you will plan and do an investigation to answer this question: **Can you dissolve more sugar, or more salt, in a glass of water?**

My plan

- Complete the table.

Variable	Will I change it or measure it or keep it the same?
substance (sugar or salt)	
amount that dissolves	
volume of water	
temperature of water	

- Write down what you will do.

My results

Substance	
Sugar	
Salt	

What I found out

We use physics in lots of areas of our lives. Use what you know about science to help you carry out the tasks below.

Circuits



Can you draw a simple circuit that you would find in a torch? Include these things:

battery bulb switch

The Sun

Check the Sun's position several times in one day and write the changes.

Warning: *Never look directly at the Sun!*

Time	Height in sky	Position
7 am		
Noon		
4 pm		
9 pm		

The Moon

Watch the moon every night for a week. Write down what it looks like each day. Think about its shape, and brightness.

Day	How the Moon looks
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Forces

Some types of force slow us down when we are moving. Fill in the blanks, using the words below:

- A force that slows me down when I run is drag
- A force that slows me down when I swim is air resistance
- A force that slows me down when I cycle is water resistance

Magnets

List some objects that are magnetic and some that are not.

Magnetic

Not magnetic



Special features of birds

In a local park, choose a bird to watch closely.

- Label the parts of the bird's body on the diagram.

- Why do you think the bird needs wings?

.....

- Why does it have claws?

.....

- Why does the bird have feathers?

.....



Parts of a leaf

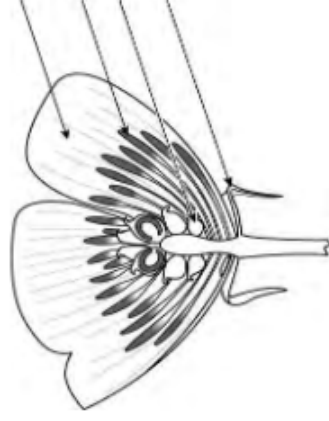
On a visit to a park or on a walk, find a tree and collect a leaf. Use books or the Internet to identify the tree from the leaf.

In the space below, draw the leaf and label as many parts as you can.



Parts of a flower

Label this diagram of a buttercup flower, which has been cut in half.



Local wildlife

Think about the living things that you might find in your garden, or in a local park. List as many organisms from your area as you can. Divide the list into producers, herbivores, and carnivores.

Producers

Herbivores

Carnivores

Physical Education Challenge



Physical Education



The importance of physical activity

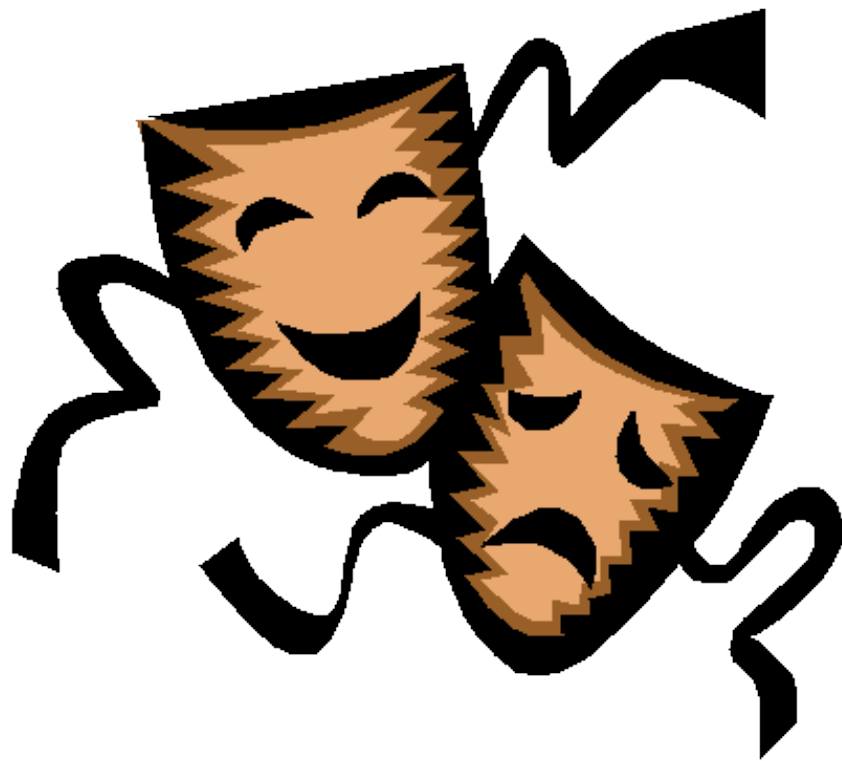
Task:

- Research why physical activity is important for our body and mind
- Create an exciting poster to show why physical activity is important for our body and mind

Bring your poster to your first physical education lesson at Hillcrest school.

Performing Arts

‘Hillcrest Got Talent!’





Hillcrest Got Talent!

Dance

Please come to your first Performing Arts lesson with your favourite Dance movement which you can show the rest of the class. If you need help with this look on YouTube for ideas.

Drama

For Drama please come to lesson with a mime of your favourite thing to do. You will perform this to the class and together we will guess what you like to do.

Mime – Moving with no words or sound.

For example: I like going on holiday so I could show this by walking down to the pool and setting up my bed and applying sun cream. I would act this out using body movements but no talking.

Music

Research your favourite music artist or band and design a poster about them. Your poster could include the following: An artist or band picture. Why is it your favourite artist or band? What is your favourite song and why? What genre of music is it?

Or

Choose a song you enjoy playing and perform it to the class using your instrument or voice.