KENTON CHOO OMEWORK

Name:

Form:

Form Room:

Year Leader:

GUIDANCE

The Homework tasks in the different subjects should be submitted and celebrated in the last 3 weeks of each Half Term. Students can choose between 4 options including the Above and Beyond Homework Task which is extra special. You will be rewarded for completing high quality homeworks in creative ways especially the Above and Beyond tasks. The homework tasks must be completed in each Half Term in the dates below.

Half Term 1

October 9th to 13th - Maths, Art, Music, RE, Computer Studies
October 16th to 20th - Science, History, Technology, PE
October 23rd to 27th - English, Geography, French

Half Term 2

December 4th to 8th - Maths, Art, Music, RE, Computer Studies
 December 11th to 15th - Science, History, Technology, PE
 December 18th to 22nd - English, Geography, French

Half Term 3

Jan 29th to Feb 2nd - Maths, Art, Music, RE, Computer StudiesFebruary 5th to 9th - Science, History, Technology, PEFebruary 12th to 16th- English, Geography, French

Half Term 4

March 11th to 15th - Maths, Art, Music, RE, Computer Studies
 March 18th to 22th - Science, History, Technology, PE
 March 25th to 29th - English, Geography, French

Half Term 5

May 6th to 10th - Maths, Art, Music, RE, Computer Studies
May 13th to 17th - Science, History, Technology, PE
May 20th to 24th - English, Geography, French

Half Term 6

July 1st to 5th - Maths, Art, Music, RE, Computer Studies
 July 8th to 12th - Science, History, Technology, PE
 July 15th to 19th - English, Geography, French

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Abstract Art

Above and beyond

Ask three people to choose three different pieces of music for you. Make an abstract artwork from each. Remember to include the song title, but you must not include anything figurative in your artwork

Option 1

Find a piece of work by Kandinsky and create your own version. Use different lines or colours to create a different mood or feeling

Option 2

Create a blind drawing of a member of your family. Look only at them and not you piece of paper while you draw.

Option 3

Find two artworks by Kandinsky and compare them. Three similarities and three differences.

Half Term 2

Colour and pattern

Above and Beyond

Make an abstract painting inspired by your own choice of abstract painter. Write about how you've taken inspiration from them

Option 1

Research your own choice of abstract painter who was working at the same time as Delaunay

Option 2

Make a painting or drawing inspired by Sonia Delaunay

Option 3

Write 100 words on what you've learnt about tertiary colours and Sonia Delaunay

Half Term 3 Embellishments

Above and Beyond

Complete hand embroidery at home using a variety of stitching techniques

Option 1

Create a colour theory booklet using images, drawings and words. You must include facts about colour mixing.

Option 2

Create a "How to guide" for hand stitching using images and words

Option 3

Create a a mood board of different embroidery artists, include their names

Half Term 4 Local Culture

Above and Beyond

Take photographs of each separate letter of the alphabet (A to Z), finding interesting/ unique letters from your local area (e.g. street signs or poster)

Option 1

Research and create a visual page about another local artist- this should include a title, images, information and your opinion about their work

Option 2

Produce a drawing of your favourite landmark in the North East (e.g. Angel of the North)

Create a moodboard of images of the North East- including famous landmarks (Penshaw Monument, Greg's Monument and St James Stadium etc)

Half Term 5 Architecture

Above and Beyond

Take at least five photographs of old buildings (similar to Ian Murphy's work), email your work to your class teacher

Option 1

Create a double page artist research page on the artist lan Murphy. Select at least three of your favourite images of her work - use formal elements to describe this work

Option 2

Create a visual mood-board (images) of old buildings, email your class teacher your work

Option 3

Create a tonal drawing of a house within your street, show the differences between the light and dark areas of the building.

Half Term 6 Illustration

Above and Beyond

Take at least 6 photographs of different buildings and architecture around the city

Option 1

Create a cardboard city inspired by Rob Dunlavey

Option 2

Create a guide explaining the differences between 2D and 3D shapes

Option 3

Create a poster explaining each of the formal elements

COMPUTER STUDIES

Half Term 1

Representation

Above and beyond

Find, read, and bring in a newspaper/ online article about a recent advancement in computer hardware.

Option 1

Make a PowerPoint presentation that uses animations to shows how to add two binary numbers together.

Option 2

Describe how the 4 main logic gates (AND, OR, NOT, XOR) are different.

Option 3

Explain (using about 100 words) how a photo is stored by your phone.

Half Term 2

Representation:

Above and Beyond

Find, read and bring in a newspaper/ online article about a recent advancement in computer hardware.

Option 1

Make a PowerPoint presentation that uses animations to shows how to add two binary numbers together.

Option 2

Describe how the 4 main logic gates (AND, OR, NOT, XOR) are different.

Explain (using about 100 words) how a photo is stored by your phone.

Half Term 3 Security

Above and Beyond

Find, read and bring in a newspaper/ online article about health and safety in the computing workplace.

Option 1

Using a diagram of a person sitting a computer desk, label and describe the possible health issues of long-term computer use.

Option 2

Create a mind map describing each threat to networks and the solutions to each.

Option 3

Create a mind map briefly describing each threat to networks.



Half Term 1

Above and Beyond

Attend a play or performance and write a review of this

Option 1

Research a famous musical theatre performer and explain their career and specialist skills. Present this through a poster/magazine article/vlog.

Option 2

Record a Vlog on what you have learned and developed in 'Developing in Drama' so far.

Option 3

Create a key Drama skills poster with key words, definitions and supporting images.

Half Term 2 Introduction to Pantomime

Above and Beyond

Attend a pantomime

Option 1

Write an article about the relevance of pantomime in modern Britain.

Option 2

Creatively present what you've learnt about pantomimes from lessons and your own research. For example a video blog, model of a feature or presentation.

Option 3

Create a mind map of the stock characters that appear in a pantomime.

Half Term 3

Devising - Identity

Above and Beyond

Watch a piece of devised theatre on DigitalTheatre+ (such as Negative Space which is particularly useful for exploring devised theatre)

Option 1

Write a verbatim script based on the actual words of people involved in a real life event.

Option 2

Creatively present what you've learnt about devising from lessons and your own research. For example a video blog, model of a feature or presentation.

Create an information poster on a devising activity for a drama classroom (research what is needed for a successfully devised activity)

Half Term 4

Theatre in Education

Above and Beyond

Watch a TIE production on DigitalTheatre+/YouTube

Option 1

Devise a script which tackles a current issue using the theatre conventions of TIE.

Option 2

Creatively present what you've learnt about TIE from lessons and your own research. For example a video blog, model of a feature or presentation

Option 3

Describe the features of TIE in the form of a booklet or poster.

Half Term 5

Performance Project

Above and Beyond

Attend a professional production

Option 1

Write a review about a theatre production you have seen in the past.

Option 2

Creatively present what you've learnt about professional theatre productions from lessons and your own research. For example a video blog, model of a feature or presentation

Option 3

Design a poster for a theatre production (real or fictitious).

Half Term 6

Performance Project 2

Above and Beyond

Attend the school production

Option 1

Write a newspaper article about the school production (interview cast and crew)

Option 2

Creatively present what you know about the school production. For example a video blog, model of a feature or presentation

Option 3

Design a poster for the school production.



Half Term 1

Othello

Above and beyond

Write your own story/play with a link to Othello. It could contain a similar plot, characters inspired by the play, or the same themes.

Option 1

Creatively present what you have learnt about Othello in lessons and through your own research. Include information on plot, characters and themes. You can present this any creative way you wish, e.g., a model, a video, etc. Be creative!

Option 2

Write a poem based on Othello. Take inspiration from one of the characters, a theme or one of your favourite scenes.

Write some interview questions that you could ask one of the characters from the novel. Then, imagine you are that character and answer the questions. If you're feeling very creative, enlist the help of a friend or family member and record the interview!

Half Term 2 Gothic Fiction

Above and Beyond

Write your own story/play with a link to one of the Gothic texts you've studied.

Option 1

Creatively present what you have learnt about Gothic fiction in lessons and through your own research. Include information on plot, characters and themes. You can present this any creative way you wish, e.g., a model, a video, etc. Be creative!

Option 2

Write a script version of one of extracts you have read. If you have a flair for drama, you could even film yourself and your friends/ family acting out the scene.

Option 3

Write some interview questions that you could ask one of the characters from one of the extracts you have read. Then, imagine you are that character and answer the questions. If you're feeling very creative, enlist the help of a friend or family member and record the interview!

Half Term 3

Creative Writing

Above and Beyond

Write your own story/play with a link to one of the images you looked at.

Option 1

Creatively present what you have learnt about creative writing in lessons and through your own research. Include information on plot, characters and themes. You can present this any creative way you wish, e.g., a model, a video, etc. Be creative!

Option 2

Write a poem in response to an image that you have chosen yourself. Write an explanation as to why you chose the image and what your poem means to you.

Option 3

Create a collage of images, linked by theme and then write a creative piece of writing based on the images.

Half Term 4

Non-fiction – Inspirational Voices

Above and Beyond

Write your own story/play with a link to one of the texts you've studied.

Option 1

Creatively present what you have learnt about in lessons and through your own research. Include information on plot, characters and themes. You can present this any creative way you wish, e.g., a model, a video, etc. Be creative!

Write a speech based on one of the topics you have looked at. Remember to include persuasive techniques. If you are feeling ambitious, you could perhaps even video or record yourself delivering your speech.

Option 3

Write some interview questions that you could ask one of the people we have looked at. Then, imagine you are that person and answer the questions. If you're feeling very creative, enlist the help of a friend or family member and record the interview!

Half Term 5

Noughts and Crosses

Above and Beyond

Write your own story/play with a link to Noughts and Crosses – Perhaps it could be a sequel or prequel; it could feature inequality; be dystopian; or feature the same themes.

Option 1

Creatively present what you have learnt about Noughts and Crosses in lessons and through your own research. Include information on plot, characters and themes. You can present this any creative way you wish, e.g., a model, a video, etc. Be creative!

Option 2

Write a script version of one of the key moments. If you have a flair for drama, you could even film yourself and your friends/ family acting out the scene.

Option 3

Write some interview questions that you could ask one of the characters. Then, imagine you are that character and answer the questions. If you're feeling very creative, enlist the help of a friend or family member and record the interview!

Half Term 6 Noughts and Crosses

Above and Beyond

Write a poem which links to N&C. You could retell the story as a poem or write about one of the themes. Use your imagination!

Option 1

Create a quiz/ crossword/ wordsearch that could test the knowledge of your classmates.

Option 2

Construct a timeline to show the main plot points in the story. Be creative. How could you present your timeline?

Option 3

Create a map or model of the setting to the novel. Include places like the school, Callum's house, Sephy's house etc.



Half Term 1

T'es branché

Above and Beyond

Change your phone settings to French for one week.

Option 1

Research a famous French actor and write a fact file about them

Log on to Languagenut and score as many points as you can on the tasks your teacher has set you.

Option 3

Draw a mindmap illustrating what you have been learning this half term

Half Term 2

T'es branché

Above and Beyond

Go to Tyneside cinema, watch a foreign film and write a review

Option 1

Watch your favourite film or series with French subtitles

Option 2

Log on to Languagenut and score as many points as you can

Option 3

Draw a mindmap illustrating what you have been learning this half term

Half Term 3

Paris, Je t'adore

Above and Beyond

Make a 3D model of your favourite monument in Paris

Option 1

Create a holiday brochure for a weekend in Paris

Option 2

Log on to Languagenut and score as many points as you can

Option 3

Draw a mindmap illustrating what you have been learning this half term

Half Term 4

Mon Identité

Above and Beyond

Change your phone settings into French for a week

Option 1

Research a famous French popstar

Option 2

Log on to Languagenut and score as many points as you can

Option 3

Draw a mindmap illustrating what you have been learning this half term

Half Term 5

Là où j'habite

Above and Beyond

Make your family a French breakfast

Option 1

Design your ideal house and label in French

Option 2

Log on to Languagenut and score as many points as you can

Option 3

Draw a mindmap illustrating what you have been learning this half term

Half Term 6

Quel Talent!

Above and Beyond

Make a video of yourself singing a French song

Option 1

Create a presentation about your dreams and aspirations. This could be on PowerPoint, a poster or any format that you like

Log on to Languagenut and score as many points as you can

Option 3

Draw a mindmap illustrating what you have been learning this half term



Half Term 1

Are all cities the same: Rio

Above and Beyond

Create a display of Rio include a range of physical and human features.

Option 1

Create a venn diagram comparing Rio to Newcastle – what are the similarities and differences between the two cities.

Option 2

Write a letter to the Brazilian Government to explain how they need to help the people in the favelas.

Option 3

Summarise your learning of Rio in more than 100 words.

Half Term 2

What are the opportunities in Africa?

Above and Beyond

Create a jigsaw showing the biomes of Africa.

Option 1

Describe in over 100 words the opportunities in Africa.

Option 2

Create a Venn diagram covering the opportunities and challenges that Africa faces.

Option 3

Annotate a photograph of the "City of the Dead", Cairo – why do people live in a graveyard?

Half Term 3

Are deserts hospitable places?

Above and Beyond

Create a sandpaper image of a desert. (Be careful sandpaper can be rough.)

Option 1

Take a photograph of a cactus and share it with the class.

Option 2

Create a poster of a biome of your choice – do not use deserts.

Option 3

Make a scrap book showing different features of a desert.

Half Term 4

Why is the Middle East an important region?

Above and Beyond

Create a diorama of a typical Middle East village.

Option 1

Create a word search of key terms you have discovered while studying the Middle East.

Option 2

Make a timeline of the history of Dubai – how has the area changed.

Option 3

Create a display of all the plants and animals you can find in the Middle East.

How is Asia being transformed?

Above and Beyond

Cook a recipe from a country we have studied in our Asia topic – take a photograph of your dish and share it with your class. (Make sure you have parental supervision).

Option 1

Create a salt dough map of Japan.

Option 2

Design a travel brochure for a country in Asia

Option 3

Construct a map of Asia with strings, connecting to points of interest.

Half Term 6

Is the Geography of Russia a curse or a benefit?

Above and Beyond

Sew a flag of Russia using old material. Make sure parents give you permission.

Option 1

Create a crossword of key terms you have discovered while studying the Middle East.

Option 2

Locate and map out physical landscapes of Russia on a blank map – use photographs to show what the landscape looks like.

Option 3

Create a climate graph for a city in Russia – compare this to the UK.

HISTORY

Half Term 1

Slavery

Above and Beyond

Create a modern-day campaign poster against slavery.

Option 1

Design a newspaper front page explaining the impacts of Windrush.

Option 2

Draw an artistic representation of slavery in the past.

Option 3

Summarise your learning of Slavery in over 100 words.

Half Term 2

Industrial Revolution

Above and Beyond

Take a picture of something connected to Industrial Revolution in the northeast.

Option 1

Creatively present what you've learnt about the Industrial Revolution from lessons and your own research. For example, a video blog, model of a feature or presentation.

Option 2

Draw a mind map to show key individuals of the Industrial Revolution

Option 3

Summarise the impact of the Industrial Revolution in Britain in over 100 words

Victorian England

Above and Beyond

Write your own police report about Jack the Ripper

Option 1

Design a newspaper front page explaining what it was like to live in Victorian England.

Option 2

Draw a mind map to show evidence of the Jack the Ripper case

Option 3

Summarise your learning of life in Victorian England in over 100 words

Half Term 4

Women's Suffrage

Above and Beyond

Write a speech as a member of the Suffragettes.

Option 1

Create a propaganda poster to support Women's suffrage

Option 2

Draw a mind map to show different methods used for women's suffrage

Option 3

Summarise your learning of Women's suffrage in over 100 words

Half Term 5

WW1

Above and Beyond

Research about which other countries were part of the British army and make a booklet.

Option 1

Create a recruitment poster for the British army.

Option 2

Draw a mind map to show life in the trenches

Option 3

Summarise your learning of causes of World War one in over 100 words

Half Term 6

Above and Beyond

Create a model of a trench system and take a photograph of it.

Option 1

Write a letter as a soldier in the trenches, describing what life is like.

Option 2

Draw a mind map to show why the war ended

Option 3

Summarise your learning of World War one in over 100 words

MATHS

Half Term 1

Above and Beyond

Around the World Challenge: You are travelling around the world! You have a variety of different expenses for your tour – however, the costs are all in local currencies. You need to find a correct currency rate and convert each cost into GBP.

Option 1

Sparx Compulsory Work (this is the one hour task each student is expected to do)

Option 2

Sparx XP Boost (additional optional work students can do for further stretch and challenge)

Option 3

Sparx Compulsory Work/XP Boost/ Times Tables Extra (students can complete two optional tasks on top of their normal expected task)

Half Term 2

Above and Beyond

Research Project: Straight Line Graphs Project. Investigate what happens to the equations of different lines when you reflect them in one of the axes. Try to predict what will happen. Explain your findings. Straight Line Graphs (maths. org)

Option 1

Sparx Compulsory Work (this is the one hour task each student is expected to do)

Option 2

Sparx XP Boost (additional optional work students can do for further stretch and challenge)

Option 3

Sparx Compulsory Work/XP Boost/ Times Tables Extra (students can complete two optional tasks on top of their normal expected task)

Half Term 3

Above and Beyond

Research Project: Fibonacci. Explore practice examples of the Fibonacci sequence in everyday life. Write a report on your findings. FIBONACCI SEQUENCE BY :ABHISHEK CHOUDHURY,ROLLNO -13 – class XI project (wordpress.com)

Option 1

Sparx Compulsory Work (this is the one hour task each student is expected to do)

Option 2

Sparx XP Boost (additional optional work students can do for further stretch and challenge)

Option 3

Sparx Compulsory Work/XP Boost/ Times Tables Extra (students can complete two optional tasks on top of their normal expected task)

Half Term 4

Above and Beyond

Research Project: Buying My First Car – Percentages. Use percentages to help decide what your first car should be. Buying My First Car Percentage Project Worksheets | Teaching Resources (tes. com)

Sparx Compulsory Work (this is the one hour task each student is expected to do)

Option 2

Sparx XP Boost (additional optional work students can do for further stretch and challenge)

Option 3

Sparx Compulsory Work/XP Boost/ Times Tables Extra (students can complete two optional tasks on top of their normal expected task)

Half Term 5

Above and Beyond

Research Project: Demonstrating Pi With String. Use string to demonstrate that the formula for pi is true. Demonstrating Pi With String - (thehomeschoolscientist. com)

Option 1

Sparx Compulsory Work (this is the one hour task each student is expected to do)

Option 2

Sparx XP Boost (additional optional work students can do for further stretch and challenge)

Option 3

Sparx Compulsory Work/XP Boost/ Times Tables Extra (students can complete two optional tasks on top of their normal expected task)

Half Term 6

Above and Beyond

Research Project: Mirror Symmetry.
Make patterns by using two mirrors and a bucket of wooden pattern blocks. How creative can you be? 17 Innovative Mathematics Projects that Inspire Students I by Ali I However, Mathematics I Medium

Option 1

Sparx Compulsory Work (this is the one hour task each student is expected to do)

Option 2

Sparx XP Boost (additional optional work students can do for further stretch and challenge)

Option 3

Sparx Compulsory Work/XP Boost/ Times Tables Extra (students can complete two optional tasks on top of their normal expected task)



Half Term 1

Above and Beyond

Attend a concert or gig and write a review of this.

Option 1

Research a famous Latin Musician and explain their career and specialist skills. Present this through a poster/magazine article/vlog.

Option 2

Record a Vlog on what you have learned and developed in 'Latin Music' so far.

Create a key Latin Music key word poster, including definitions and supporting images.

Half Term 2 Chord Trick

Above and Beyond

Attend a musical club for the full half term.

Option 1

Keep a listening diary of all the songs you hear throughout the day for a full week. This should be songs you hear on the radio, in games and the TV or Send a copy of this to your music teacher!

Option 2

Create an information poster explaining how to create Major and minor chords on a piano.

Option 3

Create your own short song using the chords you have learnt in your lessons. This could be done using an app such as GarageBand, or a website such as BandLab.

Half Term 3 BBC 10 Pieces

Above and Beyond

Orchestra Land! - Design a theme park based on the instruments of the Orchestra. This could be a physical model design or could be blueprint-style design drawings.

Option 1

Using the BBC 10 Pieces website, create a Track of the week set of questions about one of the 10 pieces, This should include keywords such as tempo, dynamics, instrumentation, texture and mood etc.

Option 2

Find a piece of music that uses each of the following techniques: 1. Crescendo 2. Diminuendo 3. Accelerando 4. Rallentando

Option 3

Listen to a classical piece of Music and write your review which should include: melody, instrumentation, tempo, dynamics and key information about the composer.

Half Term 4

The Blues

Above and Beyond

Compose a Blues song (using an app or website) which contains all of the elements of blues music (12 bar blues, walking bass line, swing/shuffle rhythm and AAB lyrics). Send this in to your teacher.

Option 1

Complete the Microsoft Teams quiz on 'Blues Music'.

Option 2

Create a mind-map on the origins and journey of Blues music. You can bring this right up to the present-day.

Option 3

Like some of the original blues artists create your own instrument (based on a drum/percussion or guitar) using found/household items and bring it into school.

Music for Film

Above and Beyond

Watch a film and keep a record of all the music which is used throughout. Take note if you thought this was an existing piece of Music, or something which was composed for the film. Watch the credits to see if you were right and how many different people were responsible for the Music in the film.

Option 1

Create a 'Wall of Fame' poster for an iconic film score composer/film soundtrack. It must include information about the score e.g. tempo, dynamics, instrumentation, texture and mood etc.

Option 2

Compose your own short scene composition using the techniques you have learnt in your lessons. This could be done using an app such as GarageBand, or a website such as BandLab.

Option 3

Listen to a film score and write your review which should include: melody, instrumentation, tempo, dynamics and key information about the composer.

Half Term 6

Music for Games

Above and Beyond

Music Journalism - Go and watch a live music performance. This could be at a community centre, a local church, at The Sage Gateshead, The O2 academy, the Utilita arena or any other venue. Take a photo of yourself there and write a review of your experience.

Option 1

Compare the music used in 2 different video games, explain which has the best music and why.

Option 2

Write an article which explains the differences between original music in video games and songs which are in the charts. What makes each type successful? Why?

Option 3

Compose your own short video game scene composition using the techniques you have learnt in your lessons. This could be done using an app such as GarageBand, or a website such as BandLab.



Half term one

Above and beyond

Complete a fitness test, record it in your planner (submit to your PE teacher if you want). Work on improving this aspect of your fitness, then repeat the test 6 weeks later. Let us know your progress

Option 1

Create a poster about your favourite sporting role model

Option 2

Burpee or Updowns challenge. Complete 50 burpees or Updowns everyday for a week

Option 3

Complete 10,00 steps every day for a week Half

Above and Beyond

Select one of the countries playing in the World Cup. Research their history in the competition and the key players of their team presenting your findings in a creative way.

Option 1

Attend a after school club every week of the Half Term

Option 2

Write a match report for a sport of your choice

Option 3

Complete 12,500 steps every day for a week

Half Term 3

Above and Beyond

Watch one of the Newcastle teams play a live fixture taking a photo of yourself at the game. For example Newcastle United men or women, Newcastle Falcons or Newcastle Eagles. Or an amateur local sporting fixture.

Option 1

Take part in sporting activity during the weekend every week of the Half Term.

Option 2

Use You Tube to learn a new skill eg, headstand or a football trick

Option 3

Complete 12,500 steps every day for a week

Half Term 48

Above and Beyond

Every other day complete the following fitness challenge: 20 push ups, 20 sit ups, 20 burpees, 20 squats and a 45 second plank.

Option 1

Create your own HOW TO video for a skill in a sport of your choice.

Option 2

Write a match report for a sport of your choice

Option 3

Complete 12,500 steps every day for a week

Half Term 5

Above and Beyond

Topic Your sporting hero. Creatively present your sporting hero including information such as the sport, statistics on their career, background information on their life and why they appeal to you.

Option 1

Take part in sporting activity during the weekend every week of the Half Term.

Option 2

Write a match report for a sport of your choice that you have watched.

Option 3

Complete 12,500 steps every day for a week

Half Term 6

Above and Beyond

4 km challenge. A minimum of twice a week run 4 km writing your times in your planner. Show your PE teacher your fastest time.

Option 1

Write a review of your experience in PE this year. What have you learnt? What did you most enjoy? Has your fitness improved and how? How could PE improve next year?

Create a poster of why PE is important in school that can be displayed.

Option 3

Complete 12,500 steps every day for a week



Half Term 1 Sikhism & Equality

Above and Beyond

Formulate a conversation between you and a friend/family member or guardian, discussing this question "Sikhism promotes equality" try to have two opposings point of view

Option 1

Create a model/cake/drawing of a Gurdwara

Option 2

Research a news story where Sikhs have helped people in the UK in the last 10 years- write a description of this and give your opinion on if this is effective

Option 3

Describe what the Gurdwara is in 100 words.

Half Term 2 Equality in the community

Above and Beyond

Find a local charity shop/community event and volunteer there to help others

Option 1

Create a leaflet to show Newcastle why we should have equality in our community and how some religions might try to help with this

Option 2

Listen to/watch/read the news at least twice this week and write a report about a story that either encourages equality in our society or where equality does not happen in a situation.

Option 3

In 100 words, write a summary about why Muslims want to treat everyone equal and how they might do this.



Top tip! Don't forget you can use the LRC as well as the internet and youtube to help with any of your research projects.

Half Term 1

Periodic table

Above and Bevond

Draw the electron configurations for the first 20 elements and explain how their electron configurations affect their position in the periodic table.

Option 1

Research and create a report about Dimitri Mendeleev.

- Who was he?
- What did he do?
- Why is he so important in chemistry?

Option 2

Compare atoms and isotopes

Draw and label the structure of an atom.

Describe what an atom is and what an isotope is

Explain how atoms are arranged in the periodic table

Research an element of your choice

- What is it's symbol?
- Is it a metal / non-metal / solid / liquid / gas?
- What is it used for?

Half Term 2

Respiration and Photosynthesis

Above and Beyond

Compare the process of respiration to photosynthesis. This can be done as a poster with each presented side-byside; or as a table with diagrams; or written in paragraphs.

Option 1

Create a 3D flowchart describing the process of cellular respiration, using diagrams and pictures. Clearly explain the process with simple sentences using key words.

Option 2

Word, text, picture challenge

- Write down 10 key words from this topic
- For each word write a few sentences of text to describe it
- Draw a picture to represent each key word

Option 3

Draw a cartoon strip to describe the key things that happen in photosynthesis (What is absorbed and where? What is made? Where? What are the products used for?)

Half Term 3

Acids and alkalis

Above and Beyond

Research what heartburn is and what antacids do.

Draw diagrams of the digestive system and write chemical equations to show what happens during heartburn and after you take antacid medication.

Go further to create artificial stomach acid (using vinegar or lemon juice) and explore what happens when you add antacids. See if there is a difference if you crush the tablets compared to adding them whole.

Option 1

Find out how to make your own indicator out of red cabbage.

With adult help, make and test your indicator on a range of household liquids (e.g. soap, drinks, fruit juices)

Draw a table of results to show your findings.

Option 2

Vinegar volcano!

Find out how to make a model volcano using vinegar and baking soda.

Make a model volcano and describe what is happening in the neutralisation reaction between the vinegar and baking soda.

Option 3

Draw a colour a pH scale.

Add on examples of acids and alkalis for each pH

Pressure

Above and Beyond

Ice safety!

Research how to safely rescue someone who has fallen through ice on a lake.

Explain the equipment used and how it works in terms of forces and pressure.

Option 1

Research and make your own cartesian diver.

Explain how it works.

Option 2

Draw a cartoon strip to show what happens when you pump up a balloon. Show what is happening to the particles and to the pressure. Explain why it eventually pops.

Option 3

Boat challenge.

Make a boat out of tinfoil or playdoh. Experiment with different designs to see which floats best by spreading out the pressure on the water. Even see how many coins your boat can hold.

Half Term 5

The Earth's Structure

Above and Beyond

Why are bridges built with gaps in them?

- Research how rocks can become weathered over time
- Use this research to suggest an explanation for why bridges have gaps

Option 1

Create a model of the Earth showing the different layers from inner core to crust.

Option 2

Draw a cartoon strip to explain what happens in the rock cycle

Option 3

Create a table to compare sedimentary, igneous and metamorphic rocks

Half Term 6

Light and Sound

Above and Beyond

Research and explain some real-life uses of light or sound:

- E.g. Uses of light in fibre optics or stage lighting
- Uses of sound in sonar, ultrasound, or medical cleaning

Present your research as a poster of leaflet

Option 1

What is thunder and lightning?

- Which do you see/hear first?
- How can you use them to estimate how far away a storm is?

Describe how light waves are different to sound waves.

Option 2

Can you investigate reflection and make your own kalidescope from household items?

Option 3

Make and test a Paper Cup and String Phone

- How far can long can you make the string and still hear what is said?
- Can you draw a poster to explain how it works?

TECH

Half Term 1

Above and Beyond

Invent a device that could be used in the house to make life easier for the elderly. You should draw the product and explain its features and how it will revolutionise the lives of those who use it. (You do not have to make the product!)

Option 1

Research a famous inventor and the importance of their work. Present this through a poster/magazine article/vlog.

Option 2

Record a Vlog on what you have learned and developed in your current project so far.

Option 3

Create a key Technology skills poster with key words, definitions and supporting images, be careful to consider Health & Safety too.

Half Term 2

Bike repair tool

Above and Beyond

Have your photograph taken in front of a well-known steel structure in Newcastle.

Option 1

Create a research page on steel, use colours and bold titles to make it look interesting. Include: types of steel, steel properties & product examples.

Option 2

Write a list of steel products that you can find in and around your home. Do you think they could be replaced with any other material? If so explain why?

Option 3

Some steel is very ductile. Find out what this means & which kind of steel it applies to. Write a list of other ductile materials and their uses.

Half Term 3

Coat hook

Above and Beyond

Find one Pine product online or in your home that you think could be improved. Re-design this product, changing materials or aesthetics, explaining reasons for your changes.

Option 1

Create a research page on the three different categories of wood, use colours and bold titles to make it look interesting. Include: category names, types within these, properties & product examples.

Option 2

Write a list of pine products that you can find in and around your home.

Option 3

Pine is slightly durable. Research what this term means and explain. Make a list of other durable materials.

Half Term 4 Topic\SOW: Jitterbug

Above and Beyond

Design your own product that uses at least one of the design features of a jitterbug.

Option 1

Think about a games controller that you may have at home/ or have seen. Which parts are the conductors, which parts are the insulators and what would the motor do?

Your jitterbug includes a motor. Explain what a motor does. What other products can you find that have a motor.

Option 3

Explain the difference between conductors and insulators. Make a list of conductors and insulators that you can find around your home.

Half Term 5

Acrylic travel game

Above and Beyond

Collect a bag of plastic recycling from a public space and put it into your recycling bin. Take photographic evidence.

Option 1

Create a research page on thermo and thermo setting plastics, use colours and bold titles to make it look interesting. Include: plastic names, sustainability/recyclability, properties & product examples.

Option 2

Write a list of products that you can find in and around your home made from plastic. Try to categorise these into thermo and thermosetting.

Option 3

Create an information sheet which explains the definition of thermo and thermosetting plastics and shows examples and their uses.

Half Term 6 Lifestyle diet

Above and Beyond

Plan a shopping list for a sportsman that has to balance a diet between carbohydrates and proteins

Option 1

Explain the difference between vegetarians and vegans

Option 2

From the example you have chosen plan a food diary for a day for this person

Option 3

Create an information poster which explains what is meant by a 'lifestyle diet', give an example





HOMEWORK TASKS