

Introduction

At Bedford Modern School we want to give students every opportunity to develop their love of learning. The Super Curriculum has been designed to provide students with a range of suggested activities which go beyond what they have been taught in the classroom. Engaging in super curricular activities will nurture and develop students' knowledge of their favourite subjects and help them to discover new interests along the way.

What is a Super Curricular Activity?

Super curricular activities help you to expand upon the subjects you study. You may go into more depth on something you picked up in the classroom, or learn about a new topic altogether. The activities in the BMS Super Curriculum have been categorised into the following eight areas:



This booklet contains a range of activities suggested by your teachers. This is by no means an exhaustive list but it should get you started.

Do share ideas and opportunities you come across with your teachers so that, over time, the recommended activities in this booklet can grow. In the future, employers or universities will be interested to hear about what super curricular activities you have engaged in; taking the initiative to expand upon your learning is a highly valued and impressive skill.

Top Tips for Exploring your Subject

- Be open minded and try out new things.
- Find connections. Compare and contrast different things you have explored.
- Think actively and ask questions. Try and challenge what you come across.
- Pause and reflect. What is your opinion?
- Share and discuss. Did you understand everything? Would you like to debate further?
- Follow your interests and take enjoyment from your learning.
- Once you have completed an activity, make a note so that you can remember the work you
 have done and move on to the next.

Enjoy your pursuit of the super curricular!

Mr Price **Deputy Head (Academic and Innovation)**

Mr McIntosh **Head of Academic Extension**

Art, Design Technology and Computer Science (ADIT)



Reading

- Choose a designer and read about their story. What inspired them? What was their career path? Do they have a famous product or piece of art work?
- Read about Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM).
 Consider how the introduction of CAD/CAM revolutionised the manufacturing industry.
- Computational Fairy Tales by Jeremy Kubica A exploration through the principles of computational thinking, illustrating high-level computer science concepts, the motivation behind them, and their application.
- Algorithms to Live By: The Computer Science of Human Decisions by Brian Christian and Tom Griffiths - A fascinating exploration of how computer algorithms can be applied to our everyday lives.
- Read the GCHQ Puzzle Book: Why not pit your wits against the people who cracked the Enigma? Try to solve some challenging problems.



Writing

- Write a short essay debating the following question: 'Will computer-assisted education replace
 the need for teachers in the future?'
- Write a short essay debating the following question 'Are computers more intelligent than the people who make them?'
- Write a ten-point specification for a product of your choice. Discuss ten design factors which would have been considered for that product.
- Write creatively about different timbers. You could do this in a poster format. Where does wood come from? What is conversion and seasoning? What techniques can we use to manufacture with wood?
- Look at the <u>Creative Process</u> section on the GCSE Art BBC Bitesize website. What makes a project successful?



Listening

- Listen to a Podcast on Science and Technology. Use the link <u>here</u> to support you.
- Discuss and debate: why is art education important? What are the transferable skills you may have from undertaking studies in the arts?



Watching

- Watch an episode of <u>How it is Made</u>. Consider the benefits of mass production and computerised manufacturing.
- Watch an episode of <u>Grand Designs</u> and write a summary of the process and outcome.
- Where it all started: Watch the TedTalk on <u>The birth of the computer with George Dyson</u>.
- Watch an episode of either Portrait or Landscape Artist of the Year.



Research

- Where could Computer Science take you? Carry out some research to find out about some unusual careers with the tech and Computer Science industry.
- Find out who designed and made your favourite product.
- Research Design Models. What are they? How can they be used in the design process?
- Find out more about Wembley Stadium and how it was constructed.

- Research the story of 'cat's eyes' the reflective markers on roads. Who was the designer? How did he come up with the idea?
- Explore the different methods of designing on the BBC Bitesize website here.
- Research the work of Andy Goldsworthy. Using natural objects, work outside to produce a
 piece of art work in response to your findings.
- Research the paper fashion of Issey Miyake. Using your findings as a starting point to design and create your own paper garment or accessory.



Trip or Visit

- Visit the Natural History Museum, Tring and have a look at the stuffed animals and insects in wooden cases. Take a small sketchbook and make sketches as you go around. Also look at NHM Tring.
- Visit the <u>Higgins</u> gallery, Bedford to see exhibitions closer to home.
- Plan a visit to the <u>Centre of Computing History</u>, <u>Cambridge</u>.
- Take a day trip to the <u>Design Museum</u>, London and explore the latest design exhibition.



Create

- Create a piece of artwork which reflects an event in the news.
- Draw the view from a window in your house or school using a media of your choice.
- Draw a continuous line drawing from observation of your surroundings. Try to add as much
 detail as possible without taking your pen off the page. Follow <u>Detailed street scene sketch</u>
 without lifting the pen YouTube.
- Create a series of landscape studies using watercolours. Listen to some music of your choice whilst painting.
- Create a scrapbook documenting a journey/event/trip/memory you have. This can be a mixture of photographs, text, drawings and embellishments. Consider your ground.
- Practise drawing 3D objects around your home. You could explore using oblique, isometric and perspective techniques.
- Design and make a marble run using household items and see how far you can get the marble to roll, using varying methods to build up momentum.
- Design a new bedroom layout using the internet to choose your new furniture and style.
 Create a mood board to present your chosen design.
- Visit the <u>Instructables</u> website and have a go at one of the activities. Why not join a competition on there too?
- Make a picture mood board about the Bauhaus. Who were some of the well-known designers? What are the main concepts? Include a short paragraph to explain this.
- Imagine that it is the year 2100. What will the world be like? How will technology have changed? What new inventions will have been created? Sketch a picture of a large city giving a perspective on what you think the world will be like in 2100.



- Raspberry Pi, The credit card sized computer. There are so many projects you can complete
 with this tiny computer. Take a look here for inspiration on projects completed with Raspberry
 Pi.
- Challenge yourself to draw as much as possible from observation. Working in a small sketchbook aim to make a sketch, painting or collage every day for a week.
- Create a blog or vlog about a piece of art you are particularly drawn to and share your opinion with others. Can you find any other blogs or vlogs that do this?



Read a play. Ask your drama teacher for recommendations.



Writing

- Write a monologue based on a character you have encountered in your Drama lessons.
- Create a 'How to Act' leaflet for someone who has never done drama before.
- Write an answer to the following: what does studying Drama give you that other subjects may not? Reflect on your drama work so far and the skills you have learnt.
- Write a short script for a play called The Day It All Went Wrong.



Listening

Listen to a radio play: check with an adult that it is age appropriate first.



Watching

• Watch a piece of live theatre – there are several free events. Visit <u>WhatsOnStage</u> for what is available and write a 300-500 words review on what you have seen.



Research

Research a period of theatre history and produce your own video presentation about it. This
could be done within a group of friends. Choose from: Ancient Greek Theatre; Elizabethan
Theatre; Restoration Theatre; Commedia dell'arte; Musicals



Trip or Visit

 Visit the theatre, in person or virtually to watch a production. These links may act as started points: <u>Milton Keynes Theatre</u>, <u>London Theatres</u>, <u>Bedford Theatres</u>



Create

Create a comedy mime inspired by the work of performer Charlie Chaplin. Think of a scenario
and a funny event to happen during the mime being as creative as you can.



Student-Led

• Use this link to research an accent. Can you work to master this accent? Maybe you can think of a performance that you could incorporate it into.



English



Reading

- Try reading a book a week for a whole term.
- Read a rainbow find books which mention the colours of the rainbow in their titles and commit to reading all seven.
- Read a book that is set somewhere you would like to visit.
- Read a non-fiction book if you usually only read fiction (and vice versa).
- Try a new genre or a book that is written as a poem.
- Memorise a poem and record a performance of it.



Writing

- Write a letter to your local paper. Identify a topic that is important to you.
- Review a school event for *The Eagle*.
- Start a film blog.
- Write a letter to an author and send it (via their publisher).
- Write a screenplay.
- Write a short piece in the style of your favourite author.
- Rewrite a scene from your favourite book as a playscript.
- Write a diary entry from your viewpoint.
- Write a diary from the viewpoint of somebody in power dealing with a difficult situation
- Place a classic storyline in a modern setting. For example A Christmas Carol by Charles Dickens.



Listening

- Interview a grandparent or elderly neighbour. Make notes or a recording. Find out about their childhood or wartime experience and write up the interview.
- Listen to <u>Close Readings</u>, <u>London Review of Books</u>. Choose a writer to learn about via these podcasts. You might like to read some of their work before or after listening.
- Listen to people's views on social media and the impact it has had on their life.
- Look at significant events and how they have changed the lives of people in their own words.
 What did your relatives think when the UK had a female Prime Minster, joined or left the EU, or when they saw huge changes during their life?



Watching

- Watch a film which has been adapted from a book. What has been changed?
- Write a Paper to Popcorn article for The Scribbler.
- Visit the theatre and describe how the audience behaves in various different sections.



Research

- What is John Bunyan's connection to Bedford? The author of the first novel in English was a local!
- Research Bletchley Park and some of the characters who worked there, and then write a leaflet or guide about what you have learned.

- Investigate narrative art choose a painting which illustrates a moment from a literary text, e.g. Millais' *Ophelia* (linked to *Hamlet*)
- Use the website Great Writers Inspire to research a famous writer of your choice.
- Pick a country on a world map investigate its literary history. Who was a big writer there?



Trip or Visit

- Visit Houghton House near Ampthill. This was the model for 'House Beautiful' in The Pilgrim's Progress.
- Visit Olney. There is a museum dedicated to John Cowper and John Newton (poet/hymn writer) and a Cowper trail showing the countryside about which he wrote in his poetry.
- Go to the <u>Roald Dahl Museum</u> in Great Missenden, Bucks
- Visit the Globe Theatre, London.
- Visit London and look at the various locations used in film scenes and compare them to the description in the books.
- Design a map for people to follow that explores landmarks from writers and books.
- Visit places of religious significance or cultural significance. Report on the impact.



Create

- Create a film or storyboard as a background to your reading of a poem you have studied.
- Draw a picture to represent a poem or to illustrate a short story.
- Take a character from your favourite story or film and write about their backstory or next adventure.
- Create a social media profile for a character from your favourite book.
- Create a news report about an incident in a book you are reading and record yourself as the reporter on the scene.
- Make a map for tourists to follow that looks at places in a book.
- Produce an episode of *This is your Life* about a writer or character
- Film a story about a villain using Gothic elements



- Organise a recording of a short story with your friends; allocate parts and encourage people to create a voice for their character with one person reading as narrator.
- Have a poetry battle



Humanities



Reading

- The Lion the Witch and the Wardrobe by C S Lewis
- Sophie's World by Jostein Gaarder
- Philosophy Files by Stephen Law
- Read some stories from the interactive Sacred Texts featured in the British Library.
- Research and read *The diary of Anne Frank*.



Writing

- Imagine you are a migrant fleeing your homeland and heading for the UK. Write a diary entry for a day in your life outlining your perilous journey and what you hope to find when you arrive.
- Write and illustrate your own story or poem set in the past.
- Write an OS map story; write an adventurous story using OS map symbols (to replace words).
- Just War Theory; what rules do you think should govern warfare today? Write no more than five rules to update the Just War Theory for modern warfare.



Listening

- Listen to episodes from Dan Snow's 'History Hit' Podcast: there are hundreds!
- Listen to this interesting podcast about the treatment of medieval witches.



Watching

- Watch the <u>BBC Coast series</u>
- Watch and review a film that allows you to question an understanding of our existence or
 makes us look at ethical behaviour linked to how we treat one another. Suggested film include
 Pleasantville (rated 12), The Truman Show (rated PG), Remember the Titans (rated PG)
- Watch <u>A.J. Jacobs</u>: <u>My year of living biblically</u> and present the key ideas in a storyboard or mind-map
- Use the <u>HumanistUK website</u> to find out more about humanism and use the 'Cornell' note system to record your findings.



Research

- Choose one animal that is threatened by China's development. Create a poster to support
 a campaign to protect it. You could include how it is threatened, where it lives and what you
 want people and the government to do to help.
- How do plants adapt to living in deserts/rainforests/polar regions? What features do they have to ensure their success? Name the plants, label and annotate their features using a diagram.
- Do some media research and find as many positive news stories as you can in a day.
- Find as many news stories as you can about religion in the course of one week.
- Research belief in God and the 'Golden Rule'. Do you think the ethical beliefs of all religions can be expressed in this one rule, or is it more complicated than that?
- Compile a fact file on the <u>impacts of climate change</u>. What do you consider the worst three to be? Justify your opinion.
- Research how your local area has changed from the medieval times to the present day.

Trip or Visit



- Any coastline! See if you can find out how people have used the land along the coast. Is it
 completely natural? Are there facilities to attract tourists? Are there management strategies to
 protect the coast from erosion?
- Visit a site or place of religious significance and write a brief reflection on your visit. This could be in your local village or town or further afield.
- Visit any urban area. Take time to observe how cities manage transport to cope with large numbers e.g. Segregated lanes, schemes to encourage use of public transport, methods to stop people using cars.
- Visit one of the following and find out more about the history of Bedford and its surrounding area: Bedford Castle Mound, The Higgins, Bedford, Houghton House, near Ampthill, John Bunyan Museum, Bedford, Moot Hall, Elstow, The Willington Dovecote and Stable.



Create

- Illustrate an A-Z map for the topic you are studying in Geography, History or RS.
- Enter a piece of work into the National Spirited Arts Competition. Themes can be found here.
- Enter the <u>Young Geographer of the Year</u> competition.
- Create and decorate the cover of a blank notebook to use as a prayer journal. Record the things you are praying for.
- Design a symbol for forgiveness.
- Design your own medieval grotesque. This could be created as a drawing, on a computer, or
 even rendered in sculpture. You could base it on a BMS theme if you wish (eagle) or your own
 hobbies and interests, but it should look intimidating and suitably devilish and be composed
 from animal parts, human features and/or mythical beasts. Watch the link here on the Luttrell
 Psalter and its grotesques as inspiration.



- Create a tornado in a jar
- Create a film that could be used by teachers to help explain a key historical event or topic.
- Live without your social media or games for a week! Write about your experience.
- Research your own Family Tree. Reading the information in the link <u>here</u> will help to guide you.





- The Simpsons and their Mathematical Secrets, by Simon Singh. See how a writing team of mathematicians include mathematics within this popular animation.
- This is not a Maths Book, by Anna Weltman a fusion of maths and art/drawing. Create work through fun drawing challenges with a mathematical basis.
- Alex's Adventures in Numberland by Alex Bellos
- Humble Pi: A Comedy of Maths Errors by Matt Parker
- Hello World: How to be Human in the Age of the Machine by Hannah Fry
- The Curious Incident of the Dog in the Night Time by Mark Haddon.



Writing

• Practise for the UKMT maths challenge held in February and April each year. All the past papers and answers are here: <u>Year 7/8</u>, <u>Year 9/10</u>.



Listening

Simon Singh's Numbers Listen to <u>5 BBC Radio 4 podcasts</u> on 'special numbers'.



Watching

• BBC <u>Magic Numbers Mysterious World of Maths</u> documentary exploring the world of maths with Dr Hannah Fry.



Research

- Research Srinivasa Ramanujan; find out about his contributions to modern mathematics. Use this timeline to see how mathematicians 'Stand on the Shoulders of Giants'.
- Research the mathematics of magic. Many magic tricks are based on mathematics. What magic tricks can you find? Try them out on your friends!



Trip or Visit

- Visit the maths gallery in the Science Museum, London.
- Visit <u>Bletchley Park</u> to explore the world of coding and maths.



Create

- Design a house or a school. Produce a full scale drawing, calculate area and show all the relevant measurements. Complete the task by creating a paper or cardboard model.
- Create your own difficult maths problem and challenge someone to complete it.
- Maths has lots of links to art, e.g Fractals, Fibonacci sequence and symmetry. Create a piece of art using maths. You could use this website for more ideas mathematical art lessons.



- Wild Maths explore, imagine, experiment, and create! Try and explore one of the games from the Nrich site <u>here</u>.
- Sign up to <u>Parallel</u> and receive a weekly maths challenge to complete.
- Explore the problems here.

Modern Foreign Languages



Reading

 Borrow the Bibliobus book series from the library, see the librarian if you need support in finding them.



Writing

• Write a letter to your French or German penfriend introducing yourself and your family.



Watching

- Les Choristes
- Das Wunder von Bern



Research

- Look up the different tourist destinations in Spain, France or Germany and decide which you
 would like to visit and why.
- Research the geography and the political makeup of Spain, France or Germany.



Trip or Visit

Take a virtual trip using these links: <u>Institut français</u>, <u>Goethe Institute</u>, <u>Parc Astérix, France</u>.



Create

- Make a house either out of Lego, cardboard or digitally and label the rooms and furniture in French, German or Spanish.
- Find a recipe from France, Germany or Spain and make a cake to treat your family. Try to read the recipe in the language for an extra challenge.
- Create a brochure about your town or village for French, German or Spanish tourists. Include advice to travellers, using the future tense.





Read The Secret Lives of Great Composers by Elizabeth Lunday and dip into the interesting
lives. You'll learn that Edward Elgar dabbled with explosives; that John Cage was obsessed
with fungus; that Berlioz plotted murder; and that Giacomo Puccini stole his church's organ
pipes and sold them as scrap metal so he could buy cigarettes.



Writing

 Write about how music affects our brains by watching How playing an instrument affects your brain by Anita Collins on TedEd as a starting point.



Listening

Listen to a piece of music that is unfamiliar to you. Whilst doing so consider: The composer –
what is their music like? What instruments are used? What is the melody like? What mood is
created? How is harmony used? What musical layers can you hear in the piece? How are the
chords used.



Watching

- Visit <u>www.bbc.co.uk/bbcfour</u>. Watch BBC Young Musician of the Year. What did you
 particularly like about the pieces? What mood or images did they conjure up? How did they
 make you feel?
- Watch 'Getting started as a DJ: Mixing, mashups and digital turntables' on the TedEd website.
- Watch *West Side Story* and *The Music Man.* They were released in the same year but are very different. Which one is your favourite?



Research

 Research Bob Marley and the influence he had on social and political change through the music that he wrote.



Trip or Visit

 Attend a concert, show or live performance, either physically or virtually. Search BBC Proms on youtube.com if you are needing some inspiration.



Create

- Use this link to find out how to make your own instrument. Use objects found in your house or recycled materials. Once you have made your instrument, try it out. You could even form your own band with your friends and record a track together!
- Using a music notation software such as <u>Muse Score</u>, write a composition that represents the
 mood that you are feeling. Alternatively, using your instrument at home, compose a piece of
 music which expresses your mood.



- Record yourself singing along to your favourite song.
- Create and perform a piece of music of your choosing and organise an informal concert to showcase this to your parents or peers.
- Give a friend a music lesson on the instrument you play.



- Women in Science: 50 Fearless Pioneers Who Changed the World by Rachel Ignotofsky
- 100 Things to know about Space by Alex Frith, Alice James and Jerome Martin
- Use this link to find an article of interest. Read and write a review of it.
- Read the latest update on the Mars 2020 Perseverance Rover Mission.



Writing

- Write a news report about what you think is the most important scientific discovery in history.
- Follow this link to the Natural History Museum website. Read and watch: what do you find really interesting and why? What else can you discover on the topic? Write about where you went next and what you found out after.



Listening

- Listen to a science podcast of your choice using this link.
- What five key facts or pieces of information did you learn? Can you share these with your tutor or science teacher?
- Using this link listen to a scientific programme on RADIO 4 called 'Inside Health'.



Watching

- Watch the Nile Red YouTube video series. Interesting and unusual experiments.
- Watch Problems with the Heart
- Watch <u>Evolution of the Human Eye</u>



Research

- Research the link between chemists and artists, using this link as a starting point. Prepare a
 poster to summarise your findings.
- Using this link find a genetic disorder and research how it is caused.
- Research how you can replace a hip, what structures are involved and what metal is used and why?



Trip or Visit

- Visit the Science Museum
- Visit the <u>Natural History Museum</u>
- Visit <u>London Zoo</u>



Create

- Design and create a bug house by using things from your garden.
- Using A3 paper create a human body with 3D 'flip up' organs. Write underneath how they work. This link will support you.
- Produce your own five-minute video which teaches the audience about an element of your choice. The website <u>periodicvideos.com</u> may be useful to support with this. Write a quiz to accompany your video which tests what the audience have understood about the element.
- Create, design, plan and build your own game that teaches children about a science topic of your choice. This may take the form of a card game, an interactive game or a board game.

- Complete the <u>Great British Space Food challenge</u> include nutritional information for each ingredient in your meal, explaining how it provides a balanced diet. If possible you could cook your meal at home, review and photograph it.
- Bring some wildlife into your garden by making a bird feeder. There are many ideas on the internet of how you may go about doing this!



- Download an app on the stars and constellations then go outside at night to identify them.
- Download the Kitchen Science Booklet from the Science Museum website
- Carry out an experiment of your choice. Draw a step by step presentation of your experiment to share with your tutor group.
- Download the <u>Challenge Cards</u> and choose an activity. Plan a Science Club session for a group to complete the activity.



Thinking Skills

Year 7

- Explain in a paragraph what types of Questioning Skills (open, closed, hypothetical, emotive, and factual) you used to complete a task this week.
- Explain which of the six Thinking Hats (white, yellow, black, green, red, blue) you used to complete a task this week.
- Use one of the Thinking Maps (tree, brace, circle, bubble, double bubble, flow, multiflow, and bridge) to demonstrate something you have learned this week
- Write a paragraph using some of the keywords and key vocabulary from a lesson this week.
- Write a paragraph about a topic from this week using evaluative language.

Year 8

- Explain in a paragraph which Habits of Mind you have used this week.
- Explain in a paragraph how you have demonstrated the 5Rs of Successful Learning this week.
- Participate in one of the following Mindfulness Activities and then write about how it made you feel and how effective you think it was: Building something with Lego; trying meditation; creating something with Play-Doh; playing a board game; doing colouring or drawing or listening to music.
- Explain in a paragraph how you have used the Six Thinking Hats this week.
- Use one of the Thinking Maps (bridge, brace, tree, circle, bubble, double bubble, flow, multi-flow) to complete one of the tasks you have been given for another subject this week. (Revision from Year 7 Thinking Skills).

Year 9

- Read about a career path and make a leaflet explaining everything you have found out about it.
- Research at least five topics you could do your HPQ on. Limit this down to one that you could investigate further.





Strong applicants to Cambridge and other competitive universities tend to have explored their chosen subject through wider reading outside the classroom, as well as doing very well in their GCSEs and A-levels. We call this sort of exploration 'super-curricular', as it builds on and enhances what you are studying in school.