
Prepare, Aspire, Succeed

INTRODUCTION

At The Cottesloe School we believe that learning can take place in many settings and through a wide range of activities. It is important that we learn not just about our world, but also from it.

As a school we place great value on learning and encourage our students to take every opportunity to improve themselves in a wide variety of ways. We place great emphasis on students developing the necessary 'character' to be successful. We achieve this through building 'Healthy Relationships' and promoting our 6Cs or 'Learning Habits'.

We hope that by engaging with and completing these challenges, students will learn more about the world we live in, and gain a wider variety of knowledge and greater depth of understanding from the experiences of the challenges themselves.

A handwritten signature in black ink, appearing to read 'S Jones', with a stylized, cursive script.

Mr S Jones
Headteacher

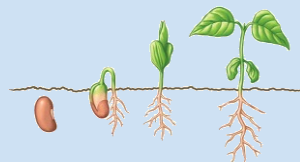
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SCIENCE: *Investigation*

There are a number of practical activities and investigations that you can carry out at home using simple equipment that you are likely to already have.



Practical	Task	Results	Completed
Melting Chocolate	Carry out an investigation into factors that affect how chocolate melts. Collect your results and describe/explain what they show.	Present your results/measurements in a table of your own design.	
Vinegar Volcano	Find out how vinegar and baking powder can be used to make a volcano. Then design/construct a volcano and carry out the reaction.	Get an image or series of images of your volcano erupting.	
Dissolving Sugar	Carry out an investigation into factors that affect how much sugar will dissolve in water. Describe/explain what your results show.	Collect your results in a table of your own design.	
Germination	Plant some seeds in good quality soil (beans are very good for this). Keep them watered and give access to light. Make observations of the seeds as they germinate and grow.	A sequence of images/descriptions.	
Microscopic Creatures	You will need a microscope* for this! Collect water samples from some different areas and use a microscope to compare the creatures/organisms living in each.	Drawings/images of what you see; maybe try to identify them.	

**You may use a microscope during lunch if you don't have one at home.*

SCIENCE: *Tracking*



There are loads of outdoor spaces where you can get out and about and immerse yourself in nature and the environment. You might like to visit Rushmere Park, Wendover Woods, Tring Reservoirs, College Lake, Farm Land (making sure you stick to public footpaths), village ponds etc.

Target	Task	Photo	Completed
A) Muntjac Deer B) Fox C) Badger	This needs to be researched first – find out what the track for this looks like so that you know when you have found one.	A photo of you pointing at the track.	
Rabbit Warren	Find out where you are likely to find them and what they look like.	A photo of you with the warren (hole) in the background.	
Swans Nest	Describe a swans nest to the form to coach them in how to find one.	A photo of the nest – make sure you do not go too close or do anything to disturb wildlife.	
Owl Pellet	Find out all about them and then get out and about to find one – you will need keen eyesight! (Some reserves and visitors centre might have these available to look at).	A picture of the owl pellet.	
Tadpoles and frog spawn	Where will you find them – what do they look like? What time of year will you need to look? Then get out and look carefully.	A picture of either frog spawn or tadpoles – remember not to disturb them in their natural environment.	



SCIENCE: *Museums*

There are lots of museums with free entry in the local area (and beyond). Try to complete the following challenges based around some of these easily accessible museums.

Museum	Photo	Follow up Activity	Completed
Aylesbury Museum	Take a selfie with an animal of your choice.	Tell your form tutor one fact you learnt	
Natural History Museum (Tring)	Take a selfie.	Produce a poster about your favourite animal/ exhibit in the museum.	
Natural History Museum (Oxford)	Take a selfie with the Iguanodon	Write a short poem about your favourite exhibits in the museum – make sure it is scientifically correct.	
Natural History Museum (London)	Take a selfie.	Tell two friends what you found out.	
The Science Museum (London)	Take a selfie with your favourite exhibit in the space exploration part of the museum.	Tell your form tutor when the first moon landing was.	



SCIENCE: *Zoological Visits*

There are some great zoological visits in and around this part of the country. Try to visit as many as possible.



Venue	Photo	Task	Completed
Whipsnade Zoo	Get a photo of you with the Chimps.	Draw a picture of your favourite animal in the zoo.	
Woburn Safari Park	Try to get the best selfie possible with the Red River Hogs.	Pretend you are reporter and write a short report to compare a safari park with a traditional zoo.	
Bucks Goat Centre	Selfie with the cutest goat you can find.	Find out as much as you can about the alpacas. Take some photos and research where they live and how they are suited to their environment.	
London Zoo	Get a picture of yourself with the scariest spider you can in the 'In with the Spiders' exhibit - or another less scary exhibit.	What is the most interesting animal that you see? Tell your form tutor.	
London Aquarium	You with a shark!	Make a model of one of the fish or other organisms that you have seen - be creative.	



ENGLISH

What to Do	Tips	Follow up Activity	Completed
Find three Blue Plaques of famous authors and take a selfie next to each	When you next go on a trip check to see if any famous author lived at any time in this area. Use English heritage.org.uk. There is also a free Blue Plaque App.	Write a 600 word biography of one of these authors.	
Visit the Roald Dahl Museum	The museum is in Great Missenden, check opening times before you visit.	Read a book for children by Dahl. Write a 500 word review.	
Join a local Library	For some, this might have to be Aylesbury or Milton Keynes.	Regularly check out books. Supply evidence that you have borrowed at least 10 books.	
Attend a performance at The Globe Theatre (as a £5 standing member of the audience)	Go on to The Globe website to purchase tickets.	<ul style="list-style-type: none"> • Present your ticket as evidence. • Write a review of your experience, try and make this amusing. 	
Read a novel by any Children's Laureate	Research who these are and make an informed choice.	Write a 500 word review of the novel.	
Chose a novel to read with one of your parents or carers	You can get two copies and read together (preferred) or one copy and read at separate times.	Talk the book through with your reading partner. Write a review of what you both felt about the book.	
Find out what the favourite novel of each member of the English Department is	Make sure they know that you might read the book so that they can recommend something suitable.	Out of all the recommendations chose one book to read. When done, make time to talk about the book with the teacher.	

ART

What to Do	Follow up Activity	Completed
Make a sandcastle	Take a photo or, if possible, bring the item in to school	
Make a Goldsworthy Rain Shadow		
Make a cake for an Artist's Birthday		
Make a hat for an Artist's Birthday in their style		
Create your name out of objects and take a photo		
Take a close up picture of a butterfly		
Paint someone's face		
Paint a stone		
Create a photo message (Gillian Wearing style)		
Send a message in a decorated bottle		

What to Do	Follow up Activity	Completed
Draw your family tree	Take a photo of, if possible, bring the item in to school	
Draw a cartoon strip		
Create a flick book		
Do some origami		
Draw a caricature		
Draw a pet portrait		
Create a miniature garden		
Make shadow puppets		
Make a Google banner for your favourite artist		
Incorporate song lyrics into a drawing		
Make a short film		
Make a scrap book and fill it with ideas		

PHILOSOPHY & ETHICS

What to Do	Follow up Activity	Completed
Watch the news	Write a review about one of the reports.	
Speak to someone you wouldn't normally speak to in school and find something out about them	Reflect on what you found out.	
Visit the Victoria & Albert (V&A) Museum	Write a reflection on your visit.	
Have a discussion about a moral issue with your parents	Tell your form tutor what you think.	
Take a selfie in two places of cultural interest	Bring your selfies in to show your form tutor.	
Visit the Jewish Museum, London	Have a conversation with your Ethic's teacher about how it made you feel.	

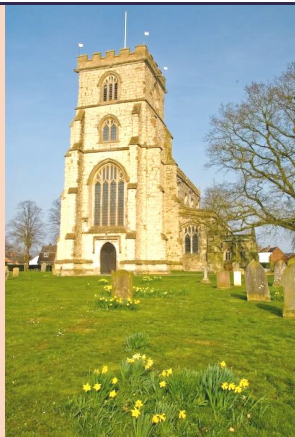


What to Do	Follow up Activity	Completed
Read a non-fiction book	Write a review.	
Watch a TED talk	Summarise what you have learnt.	
Visit the Whipsnade Tree Cathedral	Take a picture.	
Visit a Mosque, Temple or Church or any Palace of Worship and ask a question	Record your question and answer.	
Visit the Imperial War Museum, London	Write about how Warfare has changed.	
Donate to a Charity	Describe how your donation will help.	
Volunteer for 2 hours	Get a picture of you volunteering.	



HISTORY

What to Do	Follow up Activity	Completed
Visit a local war memorial and bring in a selfie or draw a picture of it.	Write about how many names are on it and which wars they are fought in. Are there any family connections e.g. brothers?	
Visit Aylesbury Museum	Describe or draw an object for 3 different time periods.	
Visit your local Church	Complete a timeline of its history using the evidence you can find from the graves, walls and artefacts in church.	
Research the history of your school	Explain the changes it has been through.	
Complete a profile of someone in your family	Share with your form tutor.	
Complete the Leighton Buzzard history trail (<i>link below</i>)	Take 5 pictures of the objects you find and describe why they have been chosen to be on the trail.	
http://www.leightonlinlade-tc.gov.uk/yourtown/childrens-trail/		

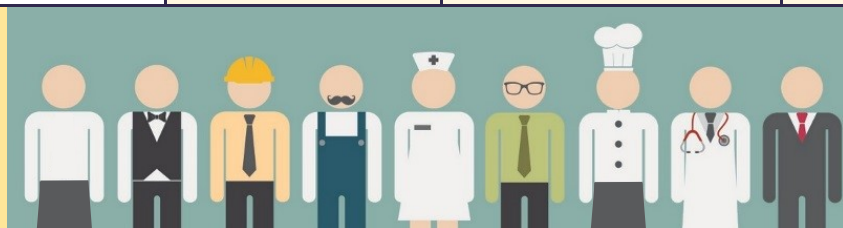


What to Do	Follow up Activity	Completed
Complete the Aylesbury Heritage walk. There is a £1 charge for the booklet (link below)	Take 5 pictures of the objects you find and describe why they have been chosen to be on the trail.	
https://www.visitaylesbury.co.uk/directory/listing/Aylesbury-heritage-walk		
Read a history book and produce a book review	What was it about? What did you learn? Why was it interesting? Why would you recommend it to others?	
Watch a history film and produce a review	Try to research the real events and explain how accurate the film is, or what was it about. What did you learn? Why was it interesting? Why would you recommend it to others?	
Visit a town or village and find a statue of a famous person	Take a picture and explain who they were, what they did and why they deserve to have a statue built after them.	



CAREERS

What to do	Tips	Follow up Activity	Completed
Register with startprofile.com and play the game	This can take about an hour to complete, but if you are registered it will save your progress so you can complete it in stages.	Write down the three most likely careers as identified at the completion of the game.	
Log on to startprofile.com and explore the worlds	Activity one should identify career ideas that you have written down. Scroll down the different Worlds until you find a match.	Write down everything you discover about your identified careers, including what you are expected to do, qualifications needed and salary. Use other sources to complement your investigation. Complete this process for two other career options.	
Log on to GOV.uk and research apprenticeships	Use what you have learnt from startprofile.com in the first instance, can you do an Apprenticeship in one of those suggested careers?	Write up a research paper (1000 words) using the following headings: <ul style="list-style-type: none"> • What is an apprenticeship? • What are the benefits? • What are the drawbacks? • How do you apply? • List ten major companies that offer apprenticeships. 	
Attend a career or apprenticeship fair	Check the school website. Register with The National Apprenticeship Service for updates.	Write a 1000 word report on your experience.	



What to do	Tips	Follow up Activity	Completed
Work Shadow a parent or relative for one day	Download an application form from the school website.	Complete the application form and submit to Mr Matcham for approval. Write a 1000 word report on your experience including a summary of the company or business, including: <ul style="list-style-type: none"> • The type of business • The management structure • Opportunities for personal development/promotion. 	
Book an appointment with Mr Youngs to talk about what the 6th Form can offer	Work out before the meeting what you want to know. Have all your predicted and target grades to hand.	<ul style="list-style-type: none"> • Write up a 500 word report on why the 6th Form is an option for you, <i>or</i> • Write up a 500 word report on why the 6th Form isn't a preferred route. 	
Interview a teacher about their career path	Prepare the questions before the interview, make notes as the interview progresses. You need to know the choices they made at school and their choices after leaving.	<ul style="list-style-type: none"> • Write a short career biography of this teacher. • Submit with this your interview questions and responses. 	
In Year 9, book a Careers' meeting with Mr Matcham	Make sure you are well prepared. You will be asked about all the research you have done. The appointment can be made through your form tutor.	This will be decided at the end of the meeting.	

MATHS

What to Do	Follow up Activity	Completed
Visit a Theme Park	Design your own.	
Exchange some money into a foreign currency	Find 5 places you can exchange money.	
Compete in a sport	Find the distance/area used in that sport for the pitch/court	
Collect data on 5 different YouTube channel total views or the total followers of 5 different famous people	Create a chart representing this data.	
Take a photo of 5 different places/items that use percentages		
Calculate the cost of any drink, sandwich/ meal and dessert from the canteen. Teachers get charged 20% VAT, how much more do they pay?	Take a photo of your meal.	
Watch a sport and record how many times your favourite player is involved		
Record the total time of your favourite 5 songs		
Calculate the total time you spend on Social Media in one week	Present as a daily chart.	
Visit Bletchley Park, where they break codes	Take a selfie there.	

What to Do	Follow up Activity	Completed
Google the Fibonacci Code	Explain what it is and find an example in nature.	
Find the best deal online for an item of your choice	Show from at least three examples which one you would buy from.	
Find 6 examples from the environment of parallel lines		
Calculate the circumference and area of a bike/scooter or car wheel	Draw and label a picture of it.	
Follow a cake recipe	Bring your cake in to share with the Maths Department.	
Work out the total distance travelled in <i>miles</i> of a holiday or trip you have been on	Convert this into Kilometres.	
Mr Brawn wants to go on holiday. Work out a trip for him abroad	Write out an itinerary and all its costs.	
Draw a scale drawing of a room(s) in your house		
Measure in 'Pigeon Steps' the length and width of a garden	Use this to calculate its area.	
Measure the temperature every day for a week	Calculate the average.	



PERFORMING ARTS: *Drama*

What to Do	Completed
Performing in a School Production	
Perform in class	
Perform at a concert for the local community	
Attend an extra-curricular club (drama club)	
Operate the lighting board during a school production	
Help with front of house (selling tickets, raffle tickets)	
Help with back stage management	
Design and make a costume for a production	
Design a set for a production	
Design and make a prop for a production	
Write a script for a performance	
Attend a school performance (School Production, Christmas Concert, dance show)	
Write a review of a performance you have seen	
Interview a performer about their work in the theatre	
Make a short scrapbook with pictures and quotes of performers who really inspire you	



PERFORMING ARTS: *Dance*

What to Do	Completed
Perform in a school production	
Perform in class	
Perform at a concert for the local community	
Attend an extra-curricular club (Dance troupe, Ignite)	
Represent the school at a dance festival such as Honeycomb	
Attend a school performance (School Production, Christmas Concert, dance show)	
Perform in assembly	
Attend a Dance show such as ballet	
Write a review of a performance you have seen	
Interview a performer about their work in the theatre	
Make a short scrapbook with pictures and quotes of performers who really inspire you	



PERFORMING ARTS: *Music*

What to Do	Completed
Perform in a school production	
Perform in class	
Perform at a concert for the local community	
Contribute to a ‘Year group’ album (xmas/pop)	
Attend an extra-curricular club (Choir, Orchestra)	
Perform at a Charity Event (sign2sing)	
Attend a school performance (School Production, Christmas Concert, dance show)	
Compose a piece of music to be used in a performance	
Perform in assembly	
Attend a Concert	
Write a review of a performance you have seen	
Interview a performer about their work in the theatre	
Make a short scrapbook with pictures and quotes of performers who really inspire you	



GEOGRAPHY & GEOLOGY

What to Do	Follow up Activity	Completed
Use Google earth to find your house and nine other places you have visited	Save screen shots of the 10 places.	
Visit a National Park	Take a photograph of a national park tourist information board.	
Find an example of a local sedimentary rock	Research the local geology at the British Geological survey website.	
Three Counties photograph	Take a photograph of you at 3 county border signs in the UK.	
Visit the Oxford museum of Natural History	Take a selfie next to the Tyrannosaurus Rex.	
Watch all episodes of Planet Earth II	Write a review of your favourite episode.	
Visit a British river	Draw a sketch of a section of the river.	
Visit the UK coastline	Bring back a shell or coastal shingle.	
Read an article on climate change.	Write a review of the article.	
Play 'geoguessr' at geoguessr.com	Achieve a score of at least 15,000 points.	
Visit Tring Museum	Name three species at Tring Museum that are now extinct.	
Download the i3D Geology app to your phone / tablet	Find and explore the geology of your local area.	





MFL: *French*

What to Do	Tips	Follow up Activity	Completed
Go to a supermarket and find as many French food items as you can. Take a picture of them	Start with the Cheese and Bread aisle.	Purchase as many as you wish. Try them. Write a review telling us what you think of them, compare them with their British equivalent if there is one. You might want to illustrate your review with the photos you have taken.	
Complete 10 French lessons on Duolingo.com		Get it signed by your teacher.	
Photograph yourself next to an object or in a place linked to France		Give an explanation of what the links are.	
Compile a list of English words that were directly borrowed from the French language, and that we use regularly like café, casserole, crème fraiche			
Then the other way around, compile a list of English words the French language has adopted, such as le baby sitting, le meeting, le rock `n' roll, le football			





MFL: German

What to Do	Follow up Activity	Completed
Find a blank map of Germany and label the ten biggest cities	Choose one of the cities and plan and cost a 3-day trip there. Also plan which public transport to use to get you around.	
Find out how popular your favourite sport is in Germany	Write a report about a German team or player of that sport.	
Research the 100 most commonly used words in German and create a vocabulary list to learn them	Create a vocabulary list that others could use, using 'memrise' app.	
Watch a German film (age appropriate, with English subtitles)	Write a review of the film.	
Download a German food menu. Work out what you and your family would choose to eat, and what you would say to order it	Teach a family member how to say what they would order.	
Find out the current Top-10 chart in Germany and listen to all the songs	Find out what the words to one of the songs mean.	
Translate each item on a shopping list written by a parent into German	Add to the list some of the things you would choose to buy.	
Listen to German radio while you do your homework	Note down 10 words that you have recognised.	
Go to a Lidl or Aldi supermarket and buy some German food	Get members of your family to try the German food.	
Find out if your town or a town near you has a German twin town. Find out where it is and whether your town organises any events with the twin town	Try to attend one of the events. Take a photo of the sign of your local town that advertises its German twin town.	
Visit a German market (this may be easier near Christmas)	Take a photo of yourself at the market.	

DESIGN TECHNOLOGY

What to Do	Tips	Follow up Activity	Completed
Develop drawing skills using Two Point Perspective	Find and watch a video to help you understand 'how to draw in two point perspective'	Using A4 paper a ruler and a pencil; draw an item of your choice. Show all lines used for working out and the vanishing points.	
Find and identify common Trees growing in the UK: Ash Beech Oak Cedar Pine	Take a look around you where you live to see if you can find the trees listed.	You could take a photo, or sketch the shape of the tree <i>or</i> You could research their shape using the internet.	
Visit London Science Museum, in particular the 'Materials Exhibit'	Take a picture of you with your material!	Pick your favourite material and explain why it is your favourite. Design a product that could be made from this material.	
Whilst out and about, pick a product that you really like. This could be a chair in a restaurant, or a mode of transport	Take a picture of the product.	Write a paragraph explaining why you like the product, and which *specific materials it is made from. Try and work out how the product was made.	
	<i>*Please note that 'wood', 'metal', or 'plastics' is not a specific material!</i>		
Find a product that you DO NOT like, or that doesn't work very well	Take a photo of the product.	What are the problems with this product? Why don't you like it? Redesign the product so it works better, and so you like it.	
Find three catering outlets that sell or serve local produce	These could be fruit, vegetables or meat based products or cakes. Get price lists or menus as evidence.	Compare the locally sourced commodities with those from supermarkets and record your findings.	

What to Do	Tips	Follow up Activity	Completed
Plan and serve a meal for your family from scratch	Take a photograph and get feedback related to the quality of the dishes you produced.	Record the feedback from your family. How could you adapt the recipe to make the dish more healthy?	
Research how a catering business can reduce damage to the environment	Think about where food is sourced from. Identify three seasonal foods. Consider the term 'Food Miles'.	Record what time of the year certain foods are ready to be harvested in the UK using photographs.	
Reuse and upcycle an unwanted product from home	For safety reasons do not choose any electrical or electronic devices. Google the term 'upcycle' for inspiration.	Take a photograph and explain what you have done and how you achieved this.	
Identify symbol A	You may have to use the internet to research this.	Explain the meaning of this symbol.	
Identify symbol B	You may have to use the internet to research this.	Explain the meaning of this symbol.	
Two 'Makita' drills are shown.	You could ask someone who might know.	Explain the differences, advantages and disadvantages of these power tools	
At the age of 13 or older you can set up a 'Pinterest' account	Follow the work of our students on Pinterest: Cottesloe School DT Dept.	The images may inspire you to produce a creative design and product of your own!	



PE

Challenge	What to Do	Completed
One Mile Challenge	This is multi layered according to your fitness levels: Cover a mile; cover a mile as fast as you can; reduce your mile time over the year. How fast can you go?!	
Step Challenge	With a group of friends compete in a 'step challenge' using fitness bands to record your progress.	
Own a Segment	Using the Strava app aim to be the quickest runner or cyclist over a segment. Hold on to your crown for as long as you can!	
Swim Challenge	Again multi layered, cover 100 metres as a starter. For those more experienced cover 100m in 3 strokes. How fast can you go?	
Selfie Challenge	Take a selfie with a sports' team mascot or as many mascots as you can over the course of a season.	
School Club Challenge	Join a school sports' team and attend at least 10 school clubs practices.	
Community Club Challenge	Join a sports' club outside of school for at least one month.	
Sports' Journalist Challenge	Choose a school team and have your match reports appear on the PE pages of the school website and keep our wider school community informed!	
Coaching Challenge	Assist with coaching a club in school for a season.	

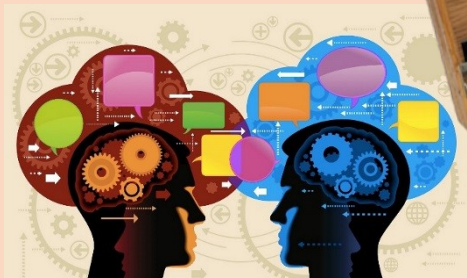


Challenge	What to Do	Completed
Inspire Challenge	We have all been inspired by sporting greatness. Produce a poster to inspire others about your sporting idol to be displayed in the PE department OR research how many professional sports' people have attended school in the Aylesbury Vale District or the county of Buckingham and create a display.	
Spectator Challenge	Go to a live sports' event.	
Camping Challenge	Spend a night under the stars camping, this could include your back garden!	
Navigation Challenge	Use an OS map and compass to plan and navigate a weekend walk for your family.	
Bear Grylls Challenge	Build a den in the woods using the natural resources around you conforming to Bears' strict guidelines!	
Campfire Challenge	Toast a marshmallow on a camp fire you have built (with adult supervision).	
Paralympic Challenge	Take a selfie at the home of the Paralympics.	
Charity Challenge	Enter a sports' event for charity. Take a picture and write about why you entered and chose the particular charity.	
Colours' Challenge	Represent the school over the course of the year. Aim to earn your half or full colours.	



COMPUTING

What to Do	Follow up Activity	Completed
Carry out the Balloon Car Challenge https://www.sciencelearn.org.nz/resources/404-balloon-car-challenge		
Bletchley Park Visit Challenge 1: Visit Cyber security Exhibition at the park and write a paragraph about what it is about. <ul style="list-style-type: none">• What was the most exciting or astonishing fact you found?• Why is it important to make sure we are secure online?		
Bletchley Park Visit Challenge 2: Visit Bletchley Park and visit the Hut where a mathematics genius worked, then complete the following questions: <ul style="list-style-type: none">• What is the name of this Genius?• What did he do at Bletchley Park and why is he important to the computing industry?• Why did the queen give a Royal Pardon to him and his family in 2013?		





THE COTTESLOE SCHOOL

Challenge Opportunities

We hope all students will enjoy taking part in these challenges, and the opportunity to learn independently beyond the classroom.

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