



The Polesworth School
ENSURING EXCELLENCE



Year 7 Threshold Concepts and support guidance

Summer term

For the topics of learning within each subject we have identified the key knowledge and skills which students need to secure to give them a firm foundation on which to build further learning. We refer to these as threshold concepts and it our intention that every student secures these threshold concepts in order to make outstanding progress through the curriculum.

We believe that the form in which feedback and assessment takes place must be specifically related to the individual subject and so each department has a specific feedback and assessment policy and teachers use a range of strategies to assess students' progress using the threshold concepts.

We have included below the subject threshold concepts for the topics of learning covered during the spring term. You can support your son/daughter's progress by regularly discussing the threshold concepts with them to help them to remember what they have learnt. To assist you in supporting your son/daughter with any areas for development we have signposted resources and links for each subject below.

Subject	Year 7 Threshold Concepts - Autumn term	How to support students' learning
Art	<p>Photomontage</p> <ol style="list-style-type: none"> 1. Develop awareness of the historical and cultural development of Hannah Hoch photomontage. 2. Know how to write a brief. 3. Create a photomontage to a self-set brief. 4. Annotate work effectively. <p>Texture</p> <ol style="list-style-type: none"> 1. Define texture and its two types. 2. Understand how to create texture using rubbings. 	<ul style="list-style-type: none"> • Encourage your child to draw from objects at home. • Ask them to add shadows using pen and pencil. • Display your child's work. • Visit museums and galleries (when it's safe to do so).

	<ol style="list-style-type: none"> 3. Understand how to create texture using tactile media. 4. Create texture using pen/pencil. 5. Develop awareness of the work of Clay Ketter through researching him. 	
Drama	A Game of Soldiers <ol style="list-style-type: none"> 1. Understand and demonstrate how to identify and create atmosphere/ tension. 2. Demonstrate ability to use rhythm / discipline in performance. 3. Understand and perform stage fighting showing complete with an understanding of safety and rules. 4. Understand how to use music to inform physicality. 5. Demonstrate ability to perform mime. 6. Apply skills to new contexts. 7. Demonstrate development of voice to extend to pitch, tone, volume, emphasis, pause, and attitude / emotion. 8. Demonstrate how to choose and use props and staging. 	Characterisation <ul style="list-style-type: none"> • This lesson from 'Oak Academy' explains some approaches to creating a character from a play and has practical exercises to try - https://classroom.thenational.academy/lessons/characterisation-6tj38e

	<p>Charlie and the Chocolate Factory</p> <ol style="list-style-type: none"> 1. Apply existing knowledge and skills to new contexts. 2. Demonstrate an understanding of narration to include purpose / use to extend to focal point and vocal skills (tone, pace, pitch, pause, emphasis, emotion / attitude). 3. Understand and demonstrate the ability to devise transitions, at times making them meaningful and creative. 4. Understand and demonstrate ensemble acting to extend to multi-rolling. 5. Demonstrate an understanding of the creation and use of cues. 6. Demonstrate an understanding of how to perform slow motion in rehearsal and performance. 7. Develop awareness of audience to extend to sightlines and leading lines. 	
<p>English</p>	<p>Sherlock Holmes Language Writing</p> <ol style="list-style-type: none"> 1. Most relevant points clearly identified and supported with references and quotations. 2. Comments make inferences based on evidence from different points in the text. i.e. showing how a character changes. 	<ul style="list-style-type: none"> • Listen to your child read a range of texts (e.g., fiction, non-fiction, articles, magazines) to allow them to fulfil their daily reading targets and to help improve their confidence in reading. • Help them to revise content learned in school from their class notes,

3. Some structural choices are identified with simple comments.
4. There are relevant comments made about writers' language choices and how they impact the reader.
5. There are relevant comments showing clear understanding of the main purpose or message of a text.
6. Some explanation of how the contexts in which texts are written contribute to meaning.

Literature

1. Most relevant points clearly identified and supported with references and quotations.
2. Comments make inferences based on evidence from different points in the text. i.e., showing how a character changes.
3. Some structural choices are identified with simple comments.
4. There are relevant comments made about writers' language choices and how they impact the reader.
5. There are relevant comments showing clear understanding of the main purpose or message of a text.
6. Some explanation of how the contexts in which texts are written contribute to meaning.

knowledge organisers and 'Big Question' sheets by testing them on the key concepts for each topic.

- Support them in improving literacy skills by visiting the KS3 grammar pages on the BBC bitesize website <https://www.bbc.co.uk/bitesize/topics/z4hrt39>. Students will benefit from working through the tasks and using the activities to check their own work before submitting it in their 200-word writing challenge fortnightly homework tasks.

Geography	African adventure <ol style="list-style-type: none"> 1. Describe the location of Africa and explain how perceptions of Africa can be influenced by the media. 2. Describe the relief and climate of the African continent. 3. Explain why Africa's population is diverse. 4. Identify the human and physical features of Kenya and explain their distribution. 5. Evaluate the positives and negatives of the Maasai way of life. 6. Describe how Kenyan houses are constructed and explain why they are best suited to the African environment. 7. Explain the positives and negatives of tourism. 8. Describe and explain the impacts of tourism on the people of Kenya. 9. Explain the meaning of sustainable tourism. 10. Assess the problems faced when migrating from one country to another. 	<ul style="list-style-type: none"> • Watch Geographical documentaries together such as David Attenborough. • Encourage your child to take an interest in current affairs/watch/read the news. • Use the BBC Geography bitesize website to support your son/daughter's learning.
History	King and Church <ol style="list-style-type: none"> 1. Scale extent of King John being good or bad with a justification. 2. Give a consequence of Magna Carta. 3. Give at least 3 symptoms of the Black Death. 	<ul style="list-style-type: none"> • Talk about History at home around topics being studied and more generally. • Encourage them to read. It could be non-fiction, historical works,

	<ol style="list-style-type: none"> 4. Provide a consequence of the Black Death. 5. Describe the reasons for peasants being in a difficult position by 1381. 6. Recount the events of the Peasants Revolt. 7. Explain the most important cause of the Peasants' Revolt. 8. Compare the level of control in Wales and Scotland by England and why they were not easy to control. <p>Church and State</p> <ol style="list-style-type: none"> 1. Identify the two houses of the Wars of the Roses. 2. List the problems Henry VII faced and link to solutions. 3. Identify reasons Henry VIII wanted to change the church. 4. Describe the role of monasteries in people's lives before the dissolution. 5. Define the English Reformation. 6. Judge the impact of the Reformation. 7. Describe changes in the church under Edward VI and Mary I. 	<p>newspapers, or online material, but then ask them to assess it as a source using their skills.</p> <ul style="list-style-type: none"> • Visit sites/museums/online displays when safe to do so.
IT	<p>Programming essentials in Scratch – Part 2</p> <ol style="list-style-type: none"> 1. Compare how humans and computers understand instructions (understand and carry out). 	<ul style="list-style-type: none"> • Ask your son/daughter to independently login to Office 365/MS Teams frequently to ensure their login

2. Recognise that computers follow the control flow of input/process/output.
3. Define a sequence as instructions performed in order, with each executed in turn.
4. Predict the outcome of a simple sequence.
5. Modify a sequence.
6. Define a variable as a name that refers to data being held by the computer.
7. Predict the outcome of a simple sequence that includes variables.
8. Trace variables within a sequence.
9. Design a sequence that includes variables (write an algorithm).
10. Create expressions that use arithmetic operators (+ - / *).
11. Make a sequence that includes a variable.
12. Define a condition as an expression that will be evaluated as either true or false.
13. Create conditions that use logical comparison operators (>, <, =).
14. Create conditions that use logic operators (AND/OR/NOT).
15. Identify that selection uses conditions to control the flow of a sequence.
16. Identify where selection statements can be used in a program.

details are accurate and to demonstrate self-reliance.

- Support your child in exploring Scratch programming and trying out remixing to understand the coding elements.

17. Modify a program to include selection.
18. Define iteration as a group of instructions that are repeatedly executed.
19. Describe the need for iteration.
20. Identify where condition-controlled iteration can be used in a program.
21. Identify where count-controlled iteration can be used in a program.
22. Implement iteration in a program (count-controlled and condition-controlled).
23. Evaluate which type of iteration is required in a program.
24. Define a subroutine as a group of instructions that will run when called by the main program or other subroutines.

Modelling data - spreadsheets

1. Identify columns, rows, cells, and cell references in spreadsheet software.
2. Use the autofill tool to replicate cell data.
3. Use formatting techniques in a spreadsheet.
4. Use basic formulas with cell references for calculations in a spreadsheet (+, -, *, /).
5. Use the functions SUM, COUNTA, MAX, MIN, and AVERAGE in a spreadsheet.

<p>Languages (French and German)</p>	<p>My School</p> <ol style="list-style-type: none"> 1. Understand and pick out 5 key facts from exemplar texts describing their school. 2. Produce 3-4 phrases from memory to describe their school. 3. Produce 8 school subjects and 5 adjectives without support. 4. Understand and pick out 5 key facts from exemplar texts describing their school subjects. 5. Produce 3-4 phrases from memory to describe their school subjects, and their teachers. 6. Produce a list of 8 items of clothing and adjectives without support. 7. Understand and pick out 5 key facts from exemplar texts describing their school uniform. 8. Produce 3-4 phrases from memory to describe their school uniform. 9. Understand and pick out 5 key facts from exemplar texts describing their future plans. 10. Produce 3-4 phrases from memory to describe their future plans. 	<ul style="list-style-type: none"> • Refer to the KS3 parent and student handbook for specific revision techniques and links to extra resources. • Refer to the Knowledge Organiser in the student's books for vocabulary support. • Use the student vocabulary booklet for reference to vocabulary and grammatical structures.
<p>Maths</p>	<p>Prime factor decomposition</p> <ol style="list-style-type: none"> 1. Demonstrate understanding of factors and multiples, square numbers, cube numbers, prime numbers, triangular numbers. 	<ul style="list-style-type: none"> • Follow the teacher's guidance and use Hegarty Maths to support home learning.

2. Write a number as a product of primes.
3. Find the highest common factor and lowest common multiple using the prime factorisation.
4. Find squares, square roots, cubes and cube roots.
5. Use indices to record repeated multiplication.
6. Calculate with the use of a calculator, including squares, cubes, square roots and cube roots.

Conceptualising and comparing fractions

7. Explore multiple representations of fractions.
8. Represent fractions using area diagrams, bar models and number lines.
9. Recognise and name equivalent fractions.
10. Convert fractions to decimals.
11. Convert terminating decimals to fractions in their simplest form.
12. Convert between mixed numbers and improper fractions.
13. Compare and order numbers (including like and unlike fractions).

Manipulating and calculating with fractions

14. Find a fraction of a set of objects or quantity.
15. Find the whole given a fractional part.
16. Multiply and divide fractions by a whole number or fraction.

- If your child is struggling with a particular skill encourage them to use the support materials or contact their teacher to resolve the issue.

	<p>17. Solve word problems involving multiplication of a fraction by a whole number or fraction using models and equations to represent the problem.</p> <p>18. Add and subtract fractions with like denominators.</p> <p>19. Add and subtract fractions with unlike denominators.</p> <p>20. Add and subtract fractions, mixed numbers and improper fractions.</p> <p>21. Convert between improper fractions and mixed numbers.</p> <p>22. Calculate with decimals.</p> <p>Ratio</p> <p>23. Display answers in ratio notation.</p> <p>24. Understand the relationship between ratio and fractions.</p> <p>25. Split quantities into a given ratio.</p> <p>Percentages</p> <p>26. Convert between fractions and decimals.</p> <p>27. Find percentages of amounts.</p> <p>28. Increase and decrease an amount by a percentage.</p>	
Music	<p>Three Chord Composition</p> <p>1. Understand the notes in bass and treble clefs.</p>	<ul style="list-style-type: none"> • This website has several free apps and sites that help students to understand structure and the elements of music.

2. Show understanding of chords, bassline, and melody.
3. Demonstrate understanding of how to put different parts together and perform as a group (band skills).
4. Demonstrate understanding of how to create their own three chord song.

Band Projects

1. Analyse and understand devices and techniques used in cover songs.
2. Show understanding of basic song structure (verse/chorus/middle 8/intro/outro/instrumental).
3. Understand how to read basic guitar/ukuele/ keyboard chord charts/maps/tablature.
4. Demonstrate understanding of how to use different functions on the keyboard to create their own arrangements/remixes.
5. Understand how to perform as part of a band – Collaboration/ ensemble.

<https://leicestershiremusichub.org/music-tech-ks3>

- This site has lots of historical context and listening resources.
<https://www.beatlesstory.com/teacher-resources/>
<https://kids.britannica.com/kids/article/the-Beatles/390013>

Composing

- This website has a variety of resources that will help with song writing and structure.
<https://www.bbc.co.uk/bitesize/topics/z3dqhyc>

Performing

- These websites have a selection of virtual instruments that allow students to practise and perform what we have covered in the classroom.
<https://www.onlinepianist.com/virtual-piano>
<https://virtualpiano.net/>
<https://www.musicca.com/guitar>

	<p>6. Show understanding of and analyse devices and techniques used in popular song – hooks/riffs/bass line/ chords.</p>	<p>https://www.apronus.com/music/onlineguitar.htm https://ukebuddy.com/ukulele-chords</p> <ul style="list-style-type: none"> • All music covered in class will be available to take home if students wish to develop their performing skills. <p>Listening</p> <ul style="list-style-type: none"> • I would recommend creating a free account with www.spotify.com or using YouTube for listening around the styles we will be studying throughout Year 7. The more students listen to the music we are studying, the more they will understand the techniques and elements used.
<p>PE</p>	<p>Athletics</p> <ol style="list-style-type: none"> 1. Demonstrate the correct grip technique for at least one throw 2. Understand that pacing is important in a middle/long-distance running event. 3. Demonstrate the basic technique to achieve maximum speed when performing a sprint. 	<p>Athletics:</p> <ul style="list-style-type: none"> • Join a local athletics club (Tamworth/Nuneaton) to develop your technique. • Encourage your child to attend the school club for extra practice. • Discuss the requirements for different events with your child and encourage

4. Demonstrate the basic jumping technique in at least one jump event.
5. Strive to achieve their own personal best in performance.
6. Demonstrate how to prepare the body effectively for a variety of activities.

Badminton

1. Grip racket correctly.
2. Use ready stance.
3. Use at least one type of serve to start a competitive rally.
4. Play the overhead clear over the net past service line.
5. Play the backhand clear over the net.
6. Play a variety of shots in a rally to move opponent.
7. Score singles game.

Cross Country

1. Complete a cross country course with some success.
2. Understand the importance of pacing in a middle/long-distance race.
3. Understand and demonstrate a basic running technique.

them to record and improve their personal bests.

- Watch athletics events live on TV or on YouTube. Watch world records and coaching videos for individual events.

Badminton:

- Book a court at Polesworth sports centre to play.
- Encourage your child to attend the school club for practice.
- Watch badminton matches/skills on YouTube/TV (e.g. <https://www.badmintonskills.net/badminton-skills-and-techniques/>).

Cross Country:

- Go for a run as a family.
- Download free Apps to track their runs (Strava).
- Join local running club/park runs/athletics club (Tamworth/Nuneaton) <https://www.parkrun.org.uk/>.

4. Understand how running can help them to maintain a healthy lifestyle.
5. Identify when working aerobically or anaerobically in a cross-country run.

Dance

1. Copy specific stylistic movements.
2. Understand street dance/hip-hop as a dance style.
3. Recognise and understand specific terminology in dance.
4. Understand the importance of timing in choreography.
5. Contribute positively to group effort.
6. Awareness and importance of a dance warm up.
7. Understand some choreographic devices.

Football

1. Use at least two different parts of the foot to manipulate the ball.
2. Use correct part of the foot to pass the ball accurately.
3. Control the ball using their foot.
4. Move with the ball with some control.
5. Select the correct option to pass or move with the ball.
6. Move into space to receive the ball.

Dance:

- Watch professional street/hip-hop companies on YouTube (e.g., boy blue entertainment, Zonation and annual 'breakin convention').
- Encourage your child to attend the school club and annual dance shows for extra practise and confidence.
- To aid with movement memory and confidence, challenge students to either perform or teach others key moves, warm up and dance phrase.

Football:

- Practice ball familiarisation skills used in lessons to develop confidence with both feet.
<https://www.youtube.com/watch?v=q1B4is3faOM>
- Encourage your child to attend the school football club to development skills and confidence.
- Explore getting your child involved in local youth football. Visit the FA website club finder to find accredited

7. Use their body to shield the ball.
8. Demonstrate good etiquette, sportsmanship, and respect.
9. Warm up and cool down safely.

Handball

1. Use at least one type of pass to pass the ball accurately -
 - Over arm pass
 - Bounce pass
 - Flick pass
 - Under arm pass
2. Move into space to receive the ball.
3. Use passing to keep possession of the ball.
4. Shoot with accuracy.
5. Understand at least one role in defence.
6. Link two or more skills together in a small sided game.

HRF - Practical

1. Complete 3 phases of warm-up.
2. Name 3 fitness components and where they may be needed.
3. Complete the fitness tests.
4. Name 3 methods to improve fitness through training.

organisations.

<https://www.thefa.com/get-involved>.

Handball:

- Get involved in any sport that you need to dodge, run, catch, and throw.
- Watch Handball matches on TV or YouTube matches/skills – e.g., Olympic and World Championships.
- Join the Handball club in school.
- Contact your local handball club (Loughborough/Coventry/Birmingham).

HRF – Practical:

- Ask your child to lead a warm-up with the family.
- Discuss different sports and what is needed to participate in that sport.
- Encourage them to develop their fitness and have a go at a type of training at home.

HRF – Theory:

- Discuss different sports and what is needed to participate in that sport.

HRF - Theory

1. Explain difference between fitness and health.
2. Identify at least 3 health related fitness components.
3. Identify 3 skill related components.
4. Link 3 tests to fitness components.
5. Explain in basic terms the fitness profile of sports/performer.

Netball

1. Demonstrate correct landing footwork (one-footed and two-footed) and pivoting with control under some pressure.
2. Use 4 different types of pass (chest / bounce / shoulder / overhead) in drills and perform a range of passes in a game.
3. Show footwork and passing variations within their game play.
4. Catch a range of passes using the correct stance and 'W' hand position.
5. Create and move into space to support teammates.
6. Apply pressure to the opposition by marking their player on and off-ball.

- Test them on the different fitness components and can they explain them to you.

Netball:

- Practice throwing and catching/target-based skills (e.g., catch or chalk target on a wall) and foot coordination skills (e.g., skipping or hopscotch) at home.
- Encourage your child to attend the school club for practice.
- Research local netball clubs/teams to join
<https://www.englandnetball.co.uk/play-netball/find-a-session-or-club/>.
- Watch netball drills on-line
<https://www.youtube.com/watch?v=8WxpyyUwQIQ>
<https://www.youtube.com/watch?v=sGPHv-hkBVs> or watch parts of matches

7. Observe many of the major rules, including footwork, obstruction, contact and offside.

OAA – Problem Solving

1. Successfully complete the tasks set as part of their group.
2. Contribute towards tasks physically.
3. Contribute towards tasks verbally
4. Lead a small group for at least part of a task.

Rounders

1. Demonstrate the correct techniques to catch the ball consistently under limited pressure.
2. Bowl underarm with some accuracy using the correct technique.
3. Throw with some accuracy using overarm.
4. Describe and demonstrate the correct batting technique and consistently hit a gentle bowl using correct technique.
5. Identify and explain the main pitch lines.
6. Explain the rules of no-ball / obstruction / backwards hit and the rules for a batter.

Rugby

1. Explain the correct technique to catch the ball.

on YouTube/TV

<https://www.youtube.com/watch?v=H25dND9cJuQ>.

OAA - Problem Solving:

- Ask them do explain what they have been doing.
- Ask them to explain, demonstrate and lead some activities they have done in lessons with family/friends.
- Look at local Scout/Brownie/Cadet groups.

Rounders:

- Practice throwing and catching/target-based skills (e.g., catch or chalk target on a wall) and running skills at home (e.g., forwards/backwards relays/ball collect).
- Encourage your child to attend the school club for practice.
- Find local rounders clubs/teams to join <https://www.roundersengland.co.uk/play/>.
- Watch rounders drills on-line

2. Understand the concept of moving into space to receive the ball.
3. Demonstrate running with the ball.
4. Understand how to beat an opponent.
5. Use a front tackle.
6. Explain the technique of the front tackle.
7. Outwit an opponent using running, passing and catching skills.

Volleyball

1. Play a 'catch' volley.
2. Move to a position to catch the ball.
3. Use the 'ready' position.
4. Play a cooperative volley rally over the net.
5. Play the overhead hit serve.
6. Hit shot #3 into space on opponents' side.
7. Score a basic game (2v2, 3v3).
8. Play the reverse volley.

<https://www.youtube.com/watch?v=kWCNpoJ9vXA>

<https://www.youtube.com/watch?v=sMTBrE52Fag>

- Watch parts of matches on YouTube
<https://www.youtube.com/watch?v=E GcimxQM0v0>.
- Encourage them to talk about health and fitness and what makes a person healthy.

Rugby:

- Contact your nearest rugby club (Tamworth, Atherstone, Nuneaton, Market Bosworth).
- Encourage your child to attend the school rugby club or practice.
- Get involved in any games that involve dodging, running, throwing, and catching.
- Watch a rugby games on TV or live/skills on YouTube.

Volleyball:

- Encourage your child to attend the school club for practice.

		<ul style="list-style-type: none"> • Watch volleyball matches/skills online. The following are good to use: https://www.youtube.com/c/Volleyball1on1Videos https://www.youtube.com/watch?v=Foj6A4WWgCg • Join a volleyball club – both Tamworth Spartans and Nuneaton Volleyball Club are recommended and have links with the school.
Religious Studies	Sikhism <ol style="list-style-type: none"> 1. Sikhism - Understand and use the following specific religious vocabulary; Sikh & Sikhism, Langar, Gurdwara, Guru, Khalsa, Seva, Human Rights. 2. Sikhism - Describe and explain Sikh beliefs about equality. 3. Sikhism - Describe and explain the langar. 4. Sikhism - Describe and explain Seva. 5. Sikhism - Describe and explain the importance of the Khalsa. 6. Sikhism - Provide one piece of evidence, such as an example to support explanations on at least key idea. 	<ul style="list-style-type: none"> • Oak National Academy https://classroom.thenational.academy/subjects-by-key-stage some topics may be in the KS2 section. • BBC bitesize. https://www.bbc.co.uk/bitesize/subjects/zh3rkqt. • The students work booklets and lesson PowerPoints, copies of which are on Teams.

Science	Biology Photosynthesis <ol style="list-style-type: none">1. Define the photosynthesis equation and understand that it occurs in plants and algae.2. Explain the role of different parts of the leaf and how they aid in photosynthesis and functionality of the plant as a whole.3. Describe the role of fertilisers and what happens to crops when they have a lack of each mineral.4. Describe the organelles and the role of palisade cells.5. Describe and explain the correlation between light intensity and the rate of photosynthesis.6. Draw and analyse an appropriate graph to present their data.7. Describe how water and sugar are carried round a plant. Respiration <ol style="list-style-type: none">8. Recall that all living things respire to release energy.9. Describe and explain why respiration is relevant to exercise and sport.10. Describe how fermentation is utilised within the food production industry.	Biology: <ul style="list-style-type: none">• Use BBC bitesize Biology: https://www.bbc.co.uk/bitesize/subjects/z4882hv.• Talk about science at home and what students have learnt today. As well as discuss new scientific advances in the news.• Watch David Attenborough documentaries about the planet e.g., Blue planet.
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11. Explain the aerobic and anaerobic respiration equations and where the reactants and products originate from.

Interdependence

- 12. Describe how to combine food chains to form a food web.
- 13. Explain that organisms in a food web (decomposers, producers and consumers) depend on each other for nutrients.
- 14. Describe how a species' population changes as its predator or prey population changes.
- 15. Describe and explain how the population of a species is affected by the number of its predators and prey, disease, pollution and competition between individuals for limited resources such as water and nutrients.
- 16. Explain the effects of environmental changes and toxic materials on a species' population.

Plant Reproduction

- 17. Describe the structures and their functions in a flower.
- 18. Describe the two different types of pollination and how flowers are adapted for these.
- 19. Describe fertilisation in plants.

20. Explain why seeds need to be dispersed and how plants do this with adaptations.

Chemistry

Chemical Reactions

1. Define combustion as a reaction with oxygen in which energy is transferred to the surroundings as heat and light.
2. Define thermal decomposition as a reaction where a single reactant is broken down into simpler products by heating.
3. Recall that chemical changes can be described by a model where atoms and molecules in reactants rearrange to make the products and the total number of atoms is conserved.
4. Use known masses of reactants or products to calculate unknown masses of the remaining reactant or product.
5. Predict the products of combustion or thermal decomposition of a given reactant and show the reaction as a word equation based on understanding of the topic.

Chemistry:

- Use BBC bitesize Chemistry: <https://www.bbc.co.uk/bitesize/subjects/znxyrd>.
- Talk about science at home and what students have learnt today. As well as discuss new scientific advances in the news.
- Watch BBC Four's 'Chemistry: A volatile history' documentary.

	<p>6. Define what exothermic and endothermic reactions are and identify reactions that are each type.</p>	
<p>Technology</p>	<p>Fashion and Textile Design - Embroidery Project</p> <ol style="list-style-type: none"> 1. Recognise different types of fibres and yarns and understand their properties and characteristics. 2. Understand what quality control is. 3. Understand what decorative components are. 4. Know how to create a circuit using conductive threads. 5. Demonstrate how to produce a range of embroidery stitches. 6. Know how to test and evaluate their products against a specification. <p>Food Preparation and Nutrition - The Basics Project</p> <ol style="list-style-type: none"> 1. Understand how cross contamination occurs. 2. Know what high risk foods are and how food poisoning can be prevented. 3. Know the eight healthy eating guidelines. 4. Understand the source and function of nutrients in the body. 5. Demonstrate how to cook a repertoire of predominantly savoury dishes using a range of cooking techniques and equipment. 	<ul style="list-style-type: none"> • Allow your child to plan and prepare meals for the family which will encourage the family to eat more healthily. • Encourage your child in upcycling old clothing/other items in the home to develop their creativity and design skills. • Access BBC Teach – A range of clips and resources which will inspire your child to learn more about all aspects of Design and Technology https://www.bbc.co.uk/teach/ks3-design-and-technology/z6y96v4. • Access STEM – Your child can explore a variety of activities and challenges that can be used to support their learning in Design and Technology https://www.stem.org.uk/home-learning/secondary-design-technology.

Product Design – Metal Project

1. Understand the difference between a design brief and design specification.
2. Know how to categorise, compare and contrast the characteristics of ferrous, nonferrous metals and alloys.
3. Understand the difference between soldering and brazing.
4. Understand the impacts of metal and metal production on the environment.

Product Design – Wood Project

1. Understand how to categorise, compare and contrast the characteristics of different types of wood.
2. Understand how the production of wood has an effect on the environment.
3. Know how to recognise the difference between MDF and plywood.
4. Demonstrate how to select and use equipment tools, techniques and equipment precisely.
5. Explain what batch production is.

- Talk to your child about what they have learned in their Food and Design and Technology lessons.

	<p>Product Design - Plastics Project</p> <ol style="list-style-type: none">1. Know how to categorise, compare and contrast the characteristics of thermoforming and thermosetting plastics.2. Understand and demonstrate how to use CAD software programmes 2D Design and Google Sketchup.3. Explain tonal values and use sketching and rendering techniques.4. Evaluate the key ring against the success criteria and the skills demonstrated in the project.	
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