

## Design and Technology Faculty

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### **Mission Statement 2020/2021:**

Design and technology is an inspiring, rigorous and practical subject that makes an essential contribution to Bilton School and the wider society. Using creativity and imagination, students design and make products that solve authentic problems. Our aim is to equip all students with relevant and transferable skills to produce quality outcomes that are purposeful in this ever-changing world. We hope to empower our young people to see the world as a place of opportunity where they can, through their own thoughts and actions, improve lives by design. We are committed to creating a positive, safe and nurturing environment, where students are supported and encouraged to flourish and grow, “to be the very best they can be.”

- **Key Stage 2** we work with Year 5 and 6 students to encourage and inspire them. [LINK](#)
- **key stage 3** is based on a 3-year model that has a carousel system between different specialist areas. We map our projects against the National Curriculum and the Six agreed interrelated principles.
- **Key Stage 4** is based on a 2-year model within the open strand of qualifications and follow a vocational structure. The 2 main pathways are WJEC Hospitality and Catering or OCR Cambridge Nationals Engineering Design
- **Key stage 5** we study BTEC Art and Design with an emphasis on 3D product Design.

### **Lessons format:**

- Year 7 - A carousel system (5 subject areas per year) – 2 hours per week
- Year 8 - A carousel system (4 subject areas per year) – 2 hours per week
- Year 9 – 1 teacher (4 Design and Technology subject areas) – 2 hours per week
- Year 10/11 – 1 specialist teacher (Vocational Options: Food/Engineering) – 2 hours per week
- Year 12/13 – 1 specialist teacher (BTEC Level 3 Art and Design 3D – 4 hours per week)

[LINK](#) - DEPARTMENT STAFFING

[LINK](#) - KEY STAGE 3 MAPPING

[LINK](#) - KEY STAGE 4 MAPPING

### **Lesson Mapping:**

Lessons per week - **KS3: 2**      **KS4: 2**      **KS5: 4**

## Curriculum intent at Bilton School: 2020/2021

At Bilton School our curriculum takes a holistic approach to education and aims to provide young people with the qualifications, memorable experiences and life skills to be adaptable and resilient 21 century learners.

Our **intent** is to foster a culture where the quality of education is built around great learning and progress in the classroom which is complimented by memorable experiences for our students. Years 7 to 9 Technology follow a broad and balanced curriculum model within a timetable structure receiving 2 lessons per week.

Our Schemes of Learning are designed in such a way that there is a balance in the content and layering of the main strands of knowledge. These are revisited in subsequent lesson, terms and years to ensure **stickability**. Themes across design technology create **connectedness** so that students see the links to improve their holistic understanding of topics. We aim to deliver inspiring and interesting content designed to evoke the curiosity of our students so that they strive to be the best that they can be. Our curriculum at key stage 3 is based on the mapping of the national curriculum, it takes the format of a carousel system whereby all students receive a broad spectrum of subject areas leading towards 2 main pathways at Key stage 4.

1. [OCR Cambridge National](#) Engineering Design (**Level 1 or level 2**)
2. [WJEC](#) Hospitality and Catering (**Level 1 or level 2**)

Within the Open strand of qualifications approximately 50% of the courses follow a vocational structure. This allows our students to complete parts of these qualifications through a **staged approach** across Years 10 and 11, thus relieving the pressure of terminal exams at the end of Year 11. For our cohort of students, we believe that this model of learning for some of their qualifications gives them a mix of assessment styles within their suite of qualifications. This provides the opportunity for them to demonstrate their ability through a variety of assessment methods which better reflects the broader skill-set that they will need to demonstrate in whichever post 16 pathway they choose. We also believe that this varied approach to gaining qualifications is being mindful of their mental **well-being** and dilutes an overly pressured exam period at the end of Year 11.

**The bigger picture:** Each Key stage 3 unit is designed to meet the national curriculum framework and [6 Key Principles](#) and also prepare students for the Engineering Design or Hospitality and Catering route. These schemes play an important role within the technology curriculum as it is essentially preparing students for the challenges of key stage 4, 5 and beyond. In particular, we introduce topics and themes early, to allow time to embed throughout future years of learning. An example of this is the [CAD/CAM unit](#) which is introduced first in Year 7, then revisited in Year 8 and 9 before starting key stage 4 in Year 10. We foster a culture of high-quality teaching and learning from the outset and do this to embed the skillsets needed.

**KS3 Assessment:** This is tracked throughout the year in student folders, each teacher completes 1 F.A.R assessments every 3 weeks. These are staggered for work load. (**F.A.R:** This stands for Feedback, Action and Response and is a whole school feedback process to enable students to improve work by following teacher specific actions and then responding to teacher feedback in purple pen).

1. [Student assessment sheets – FAR](#)
2. [Student tracker sheets in folders](#)
3. [PLC – Digital Mark book \(SIMS\)](#)

**\*See Later Examples**

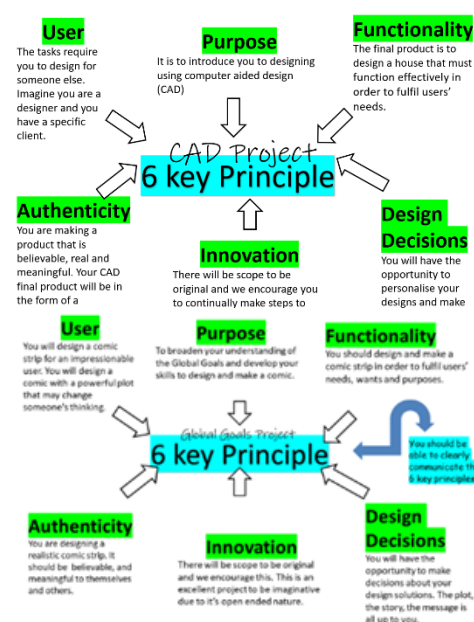
## Key stage 3 – National Curriculum

Through a variety of creative and practical activities, pupils are taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. (**Iterative** – Is the process of making ongoing improvements)

When designing and making, pupils are taught to: -

1. Design
2. Make
3. Evaluate
4. Technical knowledge
5. Cooking and nutrition

### National Curriculum & 6 Key Principles:



At Key Stage 3 we base our projects around the Six agreed interrelated principles. They describe the features of a genuine D&T experience from the pupils' perspective and can be applied to all material areas and aspects of the subject. Each principle should be evident to a greater or lesser degree in each project that pupils undertake. The principles do not represent an exhaustive list, but provide a helpful starting point for clarifying and securing the distinctive nature of D&T in the classroom.

The new National Curriculum requirements are consistent with the six principles: User, purpose, functionality, design decisions, innovation and authenticity.

- Poster [LINK](#)
- Curriculum map [LINK](#)
- Lesson PowerPoint [LINK1](#) [LINK2](#) [LINK3](#) [LINK4](#) Etc.

### Character and Culture:



The design and technology schemes play an additional role within the schools' Character and Culture curriculum. In a lot of places, the Technology curriculum fits hand in hand with the understanding of the wider society and character and culture values. An example of this is the [Year 7 Global Goals Unit](#) and in the [Year 8 Influential Designers Unit](#). We are essentially preparing students to understand how design and technology fits into the present and ever-changing world, this can be with respect of current designer makers, as consumers and also within an environmental setting.

The Character and Culture Values are as follows: -

1. **British values** – democracy, the rule of law, individual liberty, mutual respect for and tolerance of those with different faiths and beliefs, and for those without faith.
2. **Diversity** – developing a student's understanding and appreciation of diversity.
3. **Society** – equipping students to be responsible, respectful and active citizen who contribute positively to society.
4. **Cultural Respect** – celebrating what we have in common and promoting respect for the differences as outlined by law.

## **Curriculum: Key stage 3 Curriculum (National Curriculum)**

[PRESS LINK](#)

1. Year 7 - Designing Skills Unit – (Completed by all Year 7's) – **NEW 2020**
2. Year 7 - Resistant Materials – Memo-pad Project
3. Year 7 - Graphics (CAD) – Architecture Project
4. Year 7 – Sustainability project – Global Superhero Project – **NEW 2020**
5. Year 7 - Food Technology – Practical Hospitality and Catering in Action
6. Year 7 - Textiles – Phone Holder Project – **NEW 2020**
  
7. Year 8 – Designing Skills Unit – (Completed by all Year 8's) -**NEW 2020**
8. Year 8 - Resistant Materials – Bookend Project
9. Year 8 - Electronic Products – Steady hand Game Project
10. Year 8 - Food Technology - Practical Hospitality and Catering in Action
11. Year 8 - Influential Designers – Research, design and prototype – **NEW 2020**
12. Year 8 – **EXTRA unit** – Pop-up Project (CAD/CAM) *For a 5 rotation.*
  
13. Year 9 - Graphics – Chocolate Packaging – **NEW 2020**
14. Year 9 – Resistant Materials – Desk tidy
15. Year 9 – Hospitality – Theory and practical
16. Year 9 – Catering – Theory and Practical

(CAD – Computer Aided Design)

**[\\*It is advised to download the free software google sketch-up to enhance your son/daughters learning.](#)**

## **KS3 Curriculum**

**[– LINK –](#)**

Design and technology is an inspiring, rigorous and practical subject that makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

1. Using creativity and imagination, pupils design and make products that solve real and [relevant problems](#) within a variety of contexts, considering their own and others' needs, wants and values.
2. They acquire a broad range of subject knowledge and draw on disciplines such as [mathematics](#), [science](#), [engineering](#), [computing](#) and [art](#). (Specific Mapping to take place Spring 2020)
3. Pupils learn how to take [risks](#), becoming resourceful, innovative, enterprising and capable citizens.
4. Through the evaluation of [past and present design and technology](#), they develop a critical understanding of its impact on daily life and the wider world.

The key stage 3 schemes play an important role within the technology curriculum as it is essentially preparing students for the challenges of key stage 4. Each unit is designed to meet the national curriculum objectives and also to prepare students for the Engineering Design or Hospitality and Catering routes at Key stage 4. We introduce topics early and embed throughout future years, thus creating stickability. An example is the [CAD unit](#) which is introduced in Year 7, then revisited in [Year 9](#) (Student Example) to embed. CAD played a pivotal role in Engineering Design at Key stage 4 and in the BTEC Art and Design Post-16, therefore we are delivering students through the system with high quality skills from the outset and then evolving to mastery throughout their design technology journey.

- [Link – NATIONAL CURRICULUM](#)

## Key Stage 3 Assessment Plan:

Each teacher will FAR assess 2 aspects throughout the rotation and will assess using the criteria NYA, PASS, MERIT, DISTINCTION. All assessment feedback will be put onto a departmental tracker sheet that will rotate throughout the carousel. E.G.

1. FAR: Classwork Assessment 1
2. FINAL ASSESSMENT: Grading is: L2D - L1P

**ASSESSMENT TASK:** (20 minutes)

**INSTRUCTIONS**  
Select one of the following:

1. Expand: Create a cube in isometric perspective and draw it on the grid. Use lines to represent and further describe features.
2. Sketch: Write a 2-3 point perspective and draw it on the grid.
3. Challenge: Write an isometric perspective and draw it on the grid.

**Teacher marking:** Your teacher will use this grid to assess your learning. (They will use a highlighter to indicate what level you are currently working at).

Feedback:	NYA	L1P	L1M	L1D	L2P	L2M	L2D
Feedback: (You will be given an action to further improve)							
Action:							

**Response:** Use the REVERSE of this page to respond to the action(s) given.

NAME: \_\_\_\_\_ TITLE: 1 POINT PERSPECTIVE ASSESSMENT DATE: \_\_\_\_\_

**Objective:** To develop your skills and knowledge when designing a personalised product. **F.A.R.1**

INITIAL SKILLS ASSESSMENT	NYA	L1P	L1M	L1D	L2P	L2M	L2D
Feedback:							
Actions:							

**Response:** Use the space below to respond and further improve your understanding.

NAME: \_\_\_\_\_ TITLE: Initial Skills Assessment DATE: \_\_\_\_\_

**Objective:** To develop your knowledge and understanding of computer aided design (CAD). **F.A.R.2**

INITIAL SKILLS ASSESSMENT	NYA	L1P	L1M	L1D	L2P	L2M	L2D
Feedback:							
Actions:							

**Response:** Use the space below to respond and further improve your understanding.

NAME: \_\_\_\_\_ TITLE: Image Manipulation Task DATE: \_\_\_\_\_

**Objective:** To develop your knowledge and understanding of computer aided design (CAD). **F.A.R.2**

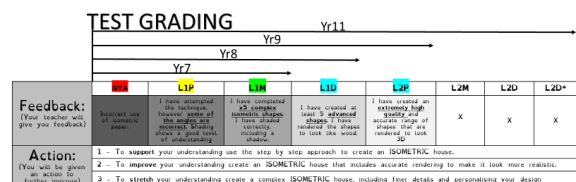
**ISOMETRIC HOUSE ASSESSMENT**

	NYA	L1P	L1M	L1D	L2P	L2M	L2D
Feedback:							
Actions:							

**Response:** Use the space below to respond and further improve your understanding.

NAME: \_\_\_\_\_ TITLE: Isometric House Task DATE: \_\_\_\_\_

Use this guide to help you understand how the grading works:



**Homework project** – week 7/8/9 – Homework HAPS are awarded for excellent work.

**IMPACT:** Students will be able to measure progress using department F.A.R tracking sheets and on SIMS through the PLC

## Homework:

**Key stage 3** – Homework is put on class-charts. Each subject area carousel completes a multi-layer homework sheet which introduces new concepts and allows students to develop their knowledge and skills. The 6-week homework is in place of a week by week homework, so the expectation is for a more detailed and thorough piece of work. The homework is given to students during week 1 of a rotation and the expected time to complete the homework is approximately 1 hour.

**Assessment** – Each teacher completes 2 F.A.R assessed pieces of work throughout a rotation, one of which will be the homework sheet. The assessments will be graded as L1P, L1M, L1D, L2P, L2M, L2D, L2D\* and these grades will be tracked on a department year tracker. These grades are used at GCSE level so we have decided to adopt the terminology to aid with the transition. The way they correspond to the GCSE gradings are as follows L1P – 1, L1M – 2, L1D -3, L2P – 4, L2M – 6, L2D, 8, L2D\* - 9.

**Frequency** - Teachers use a consistent approach with folders, tracking sheets and FAR assessments taking place every 3 weeks or 6 hours of lessons. Each term we have a data input which is a whole school initiative that enables teachers to record the attainment of students. This involves a Progress (Colour coded – R,A,G,B), ATL(1,2,3,4) and Home Learning(1,2,3) for Year 7 and 8 and a PEG(Predicted End Grade), certainty grade (1,2,3), ATL(1,2,3,4) and homework(1,2,3) for older years.



## Key Stage 3 Homework Plan: Each subject area of the carousel completes a multi-layer homework sheet which introduces new important concepts and allows students to develop their knowledge and skills.

### Year 7 Technology Home Learning Environment

**1. Answer the questions below about the United Nations - Action 10**

- State in detail what the United Nations are?
- Explain why it is important for all countries to support this?
- Describe how you could spread the word of the global goals?

Answers can be typed or hand written on lined paper.

☐ Tick when complete

**2. Answer the questions below about the 6 R's:**

- State what the 6 R's are?
- Explain with a clear sentence for each what the 6 R's are?
- Give an example to help justify each statement?

Answers can be typed or hand written on lined paper.

☐ Tick when complete

**3. Sketch 4-3D designs of products that are made from recycled materials.** Materials used may include milk cartons, empty kitchen roll tubes, bottles etc.

Get creative. Please see examples for inspiration.

☐ Tick when complete

**4. Choose one of your designs to use as a final design.** Make two improvements to it and draw a final design in 3D. Try to use the techniques learnt in class.

☐ Tick when complete

**5. (Final). Make the product that you have designed.** Get creative and have fun. Extension task (optional) Create a poster advertising your product.

☐ Tick when complete

### Year 7 Technology Home Learning Term: Autumn 1 - 2020 Theme: The Design Cycle

**1. Identify Phase:** The identify phase has 3 parts to it. The design brief, research and process planning.

- Explain what a design brief is and give an example.
- Explain the difference between primary and secondary research and give an example of each.
- Give 3 reasons as to why it is important to plan a project from the very start.

☐ Tick when complete

**2. Design Phase:** This phase has 3 parts to it. The specification, design ideas and manufacturing plans.

- Explain what a specification is.
- Create a design for a charging station that is able to charge and hold a tablet, smart phone and smart watch. Draw your designs in both 2d and 3d.
- List a minimum of 4 things a manufacturing plan should include (e.g. time to complete the task).

☐ Tick when complete

### Year 7 Technology Home Learning Term: Autumn 1 - 2020 Theme: The Design Cycle

**3. Optimise Phase:** This phase has 2 parts to it - Prototyping and Error Proofing.

- Create a card prototype for the charging station you designed in the design phase. Photograph it (ideally with the tablet, watch and phone shown on it).
- Read the webpage <https://www.skills.com/news/prototyping> and explain how the designer has error proofed the TV in the image below.

☐ Tick when complete

**4. Validation Phase:** This phase has 2 parts to it - Testing and Evaluating. For this task you are going to test and evaluate your charging station prototype. Explain how you tested it then come up with 3 possible improvements to it. Redraw your improved design.

☐ Tick when complete

### Year 7 Technology Home Learning Term: Autumn 1 Theme: Harry Beck

**1. Research Task:** Create a research collage with images that link to the theme. These can be images from the internet or photos you have taken. They could include text, people, places, maps, interlinked shapes, circuit boards etc.

☐ Tick when complete

**2. Research Task:** Research the designer Harry Beck. Find out about his background, his life and what led him to become such a great designer. Present your work in a format of your choice e.g. handwritten, printed PowerPoint or word document.

☐ Tick when complete

**3. Design Task:** Design a map of the school in the style of Harry Beck. Remember the map shows a system rather than geography. The distance between the stops on the London Underground Map does not represent the distance on the ground.

☐ Tick when complete

**4. Final Piece:** Create a final piece for your mini project on Harry Beck. You can use media of your choice which you have access to at home. Your work should link to the designer Harry Beck. It can be abstract or realistic, mixed media or even computer aided design.

☐ Tick when complete

**\* Extra challenge task:** Go on your own personal experience. This may be a railway visit which explores the designer further, a day trip to a museum or a visit to London. Take photos of your experience and document your travels and findings. It would be nice to hear of your personal opinions.

☐ Tick when complete for extra HAPS

### Year 7 Technology Home Learning Term: Autumn 1 - 2020 Hospitality and Catering- Sustainability

**1. Research Task:** Produce a poster which contains facts about the amount of food which is wasted in the UK. The poster should try to encourage people not to waste food.

☐ Tick when complete

**2. Research Task:** Research seasonal food and produce a chart which shows what food is in season each month in the Britain.

☐ Tick when complete

**\* Extra challenge task:** Cook some of the dishes you have designed and take some pictures as evidence.

☐ Tick when complete

### Year 7 Technology Home Learning Term: Autumn 1 - 2020 Hospitality and Catering- Sustainability

**3. Design Task:** Design 1 dish which could be made to use up food which are regularly leftover and thrown in the bin. Possible leftover foods are you could use are:

- Bread
- Milk
- Potatoes

☐ Tick when complete

**4. Design Task:** Create a menu for a café that wants to serve seasonal food. Select a season and design 4 dishes for the menu which are suitable to be served in Autumn.

☐ Tick when complete

### Year 8 Technology Home Learning Project: Steady Hand Game Theme: ACCESSFM

**1. ACCESSFM:** For this task you will be researching the acronym ACCESSFM and why it is useful for designers.

- The acronym ACCESSFM can be used to help designers in a number of ways. List what each letter is. View the YouTube video <https://www.youtube.com/watch?v=5v5v5v5v5v5> to help you.
- What does Aesthetics mean?

☐ Tick when complete

**2. Product Analysis:** For this task you will be researching games controllers.

- Read the design brief on the right.
- Find an image of an existing games controller and stick it to your A3 paper.
- For each part of ACCESSFM analyse the games controller you have chosen in question 3. E.g. talk about the aesthetics, cost etc.

☐ Tick when complete

### Year 8 Technology Home Learning Project: Steady Hand Game Theme: ACCESSFM

**3. Anthropometrics and Ergonomics:** Anthropometrics and Ergonomics help the designer to design a product.

- Explain what anthropometrics is.
- Explain what ergonomics is.
- When designing the games controller what anthropometric data is needed.
- Explain how anthropometrics and ergonomics are linked.

☐ Tick when complete

**4. Writing a specification:** The final part of this project is to produce a design specification for the games controller.

- For each part of ACCESSFM create a specification point using the research you have carried out to help you.

☐ Tick when complete

### Year 8 Technology Home Learning Project: Steady Hand Game Theme: ACCESSFM

**5. Design Task:** Be creative and design the next generation of your product. It is important to show consideration to customer needs and how new technologies or materials could be used to invent to improve the product. Consideration for the environment needs to be shown in your ideas.

☐ Tick when complete

**6. Final Piece: Dragon's Den** Plan the sale's pitch or promotion for your new product. This can be a power point presentation, a poster or leaflet, a model, a video or a script for a presentation to the class.

☐ Tick when complete

### Year 8 Technology Home Learning Term: Autumn 1 Theme: Norman Foster

**1. Research Task:** Create a research collage with images that link to the theme. These can be images from the internet, images from his website or photos you have taken.

☐ Tick when complete

**2. Research Task:** Research the designer Norman Foster. Find out about his background, his life and what led him to become such a great designer. Present your work in a format of your choice e.g. handwritten, printed PowerPoint or word document.

☐ Tick when complete

### Year 8 Technology Home Learning Term: Autumn 1 Theme: Norman Foster

**3. Design Task:** Sketch one of Norman Foster's buildings. Select which is the best building for you to draw and make a copy of the building. Take note of tone, shading and shadow.

☐ Tick when complete

**4. Final Design Piece:** Create a final piece which is designed in the style of Norman. The final piece could be in the form of a 3D drawing, a CAD model or a 3D model made out of modelling materials found at home. It can be abstract or realistic, mixed media or even computer aided.

☐ Tick when complete

### Year 8 Technology Home Learning Term: Autumn 1 Theme: Norman Foster

**\* Extra challenge task:** Go on your own personal experience. Select a number of inspirational local buildings that inspire you. These buildings could be a family home, a church, a barn or a school, they could be modern or traditional, but the choice is yours. It would be nice to hear of your personal opinions too.

☐ Tick when complete for extra HAPS

### Year 8 Technology Home Learning Term: - 2020 Theme: Product Evolution

**1. Research Task:** Create a research collage timeline of one product which has developed and changed over time. These can be images from the internet or photos you have taken. Possible products are: bicycle, car, phone, kettle, camera, TV, school chair, vacuum cleaner.

☐ Tick when complete

**2. Analysis Task:** Research the materials, processes and technologies used for three of your timeline product images. Present your work in a format of your choice e.g. handwritten, printed PowerPoint or word document.

☐ Tick when complete

### Year 8 Technology Home Learning Term: - 2020 Theme: Product Evolution

**3. Design Task:** Be creative and design the next generation of your product. It is important to show consideration to customer needs and how new technologies or materials could be used to invent to improve the product. Consideration for the environment needs to be shown in your ideas.

☐ Tick when complete

**4. Final Piece: Dragon's Den** Plan the sale's pitch or promotion for your new product. This can be a power point presentation, a poster or leaflet, a model, a video or a script for a presentation to the class.

☐ Tick when complete

### Year 8 Technology Home Learning Term: - 2020 Theme: Product Evolution

**\* Extra challenge task:** Find out what the following terms mean? How have influence designers and give examples of products which have been developed because of "Market pull" or "market push".

**Market Pull**

**Market Push or technology push**

☐ Tick when complete for extra HAPS

### Year 8 Technology Home Learning Term: Autumn 1 - 2020 Theme: Influential Designer - Hospitality and Catering

**1. Research Task:** Research 5 different types of menu. Try to include a range of if different types of restaurants/ take aways. Compare the similarities and differences between the menus.

☐ Tick when complete

**2. Research Task:** Research how hotels are rated. Produce a piece of work with examples of different star hotels and what makes them that star.

☐ Tick when complete

### Year 8 Technology Home Learning Term: Autumn 1 - 2020 Theme: Influential Designer - Hospitality and Catering

**3. Design Task:** Create a mood board of pictures which demonstrates different styles of restaurants. Try to include a wide range of styles and service types.

☐ Tick when complete

**4. Final Piece:** You are setting up a restaurant at a local country park. Design a menu which contains healthy dishes that would be suitable for both adults and children.

☐ Tick when complete

### Year 8 Technology Home Learning Term: Autumn 1 - 2020 Theme: Influential Designer - Hospitality and Catering

**\* Extra challenge task:** Cook a range of different dishes of your choice and take some pictures to show what you have made.

☐ Tick when complete for extra HAPS

## Key stage 4 Curriculum – [LINK](#) –

At key stage 4 the 2 subjects we offer are: -

1. **OCR Cambridge National Engineering Design - Level 1/2**
2. **WJEC Hospitality and Catering - Level 1/2**

R105	<b>Theory Exam:</b> Design briefs, specifications and user requirements
R106	<b>Analysis:</b> Product analysis and research
R107	<b>Designing:</b> Developing and presenting engineering designs
R108	<b>Making:</b> 3D design realisation
Unit 1	<b>Theory Exam:</b> The Hospitality and Catering Industry
Unit 2	Practical: Hospitality and Catering in Action

Within the Open strand of qualifications approximately 50% of the courses follow a vocational structure. This allows our students to complete parts of these qualifications through a

**staged approach** across Years 10 and 11, thus relieving the pressure of terminal exams at the end of Year 11. For our cohort of students, we believe that this model of learning for some of their qualifications gives them a mix of assessment styles within their suite of qualifications. This provides the opportunity for them to demonstrate their ability through a variety of assessment methods which better reflects the broader skill-set that they will need to demonstrate in whichever post 16 pathway they choose. We also believe that this varied approach to gaining qualifications is being mindful of their mental **well-being** and dilutes an overly pressured exam period at the end of Year 11.

### Key stage 4:

F.A.R assessments will take place approximately every 6 hours of lessons or 3 weeks.

### Engineering Design

Teachers use a consistent approach with folders, tracking sheets and FAR assessments taking place every 3 weeks or 6 hours of lessons. These grades are recorded on a whole school SIMS PLC marksheet to track progress over time. During a half term period, teachers should assess up to 3 FAR pieces of work. This is often a past paper or coursework assignment using the [R106](#), [R107](#) or [R108](#) "Booklets".

Grading: 90% L2D\*, 80% L2D, 70% L2M, 60% L2P, 50% L1D, 40% L1M, 30% L1P

### Food Technology

Teachers use a consistent approach with exercise books, tracking sheets and FAR assessments taking place every 3 weeks or 6 hours of lessons. These grades are recorded on a whole school SIMS PLC marksheet to track progress over time. During a half term period, teachers should assess a past paper and 2 coursework elements to FAR mark.

Grading: 90% L2D\*, 80% L2D, 70% L2M, 60% L2P, 50% L1D, 40% L1M, 30% L1P

### Food Technology: Example of year 9 and 10 F.A.R – Exam revision

**Explain what the Eatwell guide is and why the government produced it (4 marks)**

**Ingredients**

	Per 100g	Per portion (57g)	% RDI*
Energy (kJ)	790 (kJ)	290 (kJ)	58%
Energy (kcal)	190 (kcal)	70 (kcal)	38%
Protein	11g	4g	8%
Carbohydrate**	71g	40g	80%
of which sugars**	5.3g	3.0g	10%
Total Fat	11g	6.3g	12%
of which saturates**	6.3g	3.6g	13%
Fibre**	0.3g	0.2g	1%
Salt	0.3g	0.2g	4%

**Explain where each ingredient on the list fits in the Eatwell guide. (7 marks)**

**Suggest two ways the nutritional profile of the dish could be improved? (4 marks)**

**FAR Marking**

**F Feedback:**

Distinction	Detailed answer which answers all parts of the question
Merit	Clear answer which covers all elements of the question but lacks detail in some areas
Pass	Basic answer which covers all areas or a detailed answer which only covers some parts of the question

**A Action(s):**

Q2 - use the correct name for each section.

**R**

Group 1: Potatoes, bread, rice, pasta and other starchy carbohydrates  
 Group 2: Fruit and vegetables  
 Group 3: Dairy and alternatives  
 Group 4: Beans, pulses, fish, egg, meat and other proteins  
 Group 5: Oils and spreads

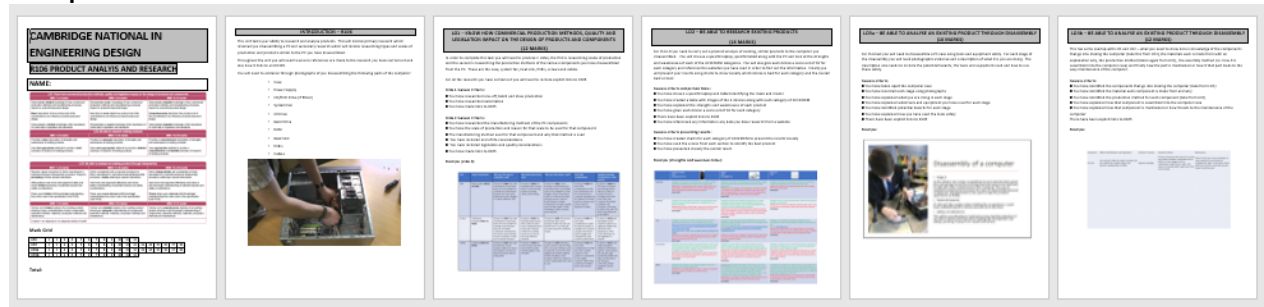
# Homework

**Key stage 4** – Homework is put on to class-charts. Key stage 4 homework is based on topics linked to the theory aspects of the level 1/2 courses. Here are examples of the type of homework given: -Planning for CW lessons. Preparation for CW. Revision style mind-maps. Creative memory sheets. Reading and note making. Topic based. Past paper questions. Gaps in knowledge or learning

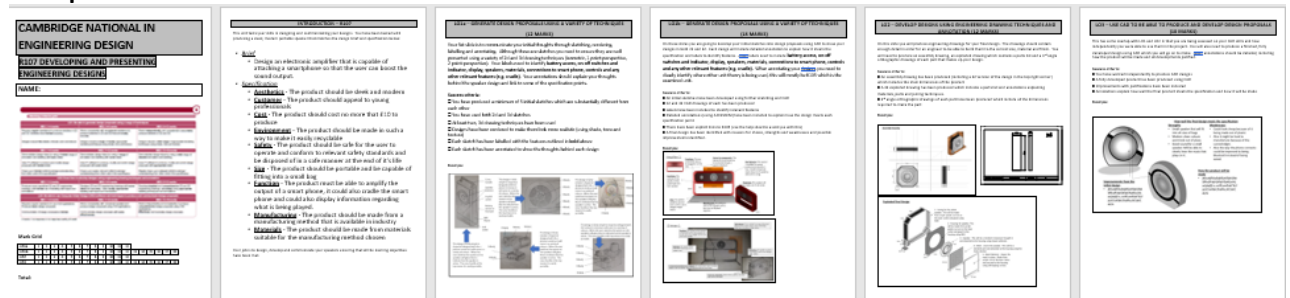
**Assessment** – Each teacher completes 1 F.A.R assessed pieces every 6 lessons. The assessments will be graded as a L1P, L1M, L1D, L2P, L2M, L2D, L2D\* and these grades will be tracked on a department year tracker which will be in the front of student folders. The way they correspond to the GCSE gradings are as follows L1P – 1, L1M – 2, L1D -3, L2P – 4, L2M – 6, L2D, 8, L2D\* - 9.

**GUIDELINES** - Teachers in Engineering and Food assess students work using the assessment booklets or F.A.R method and adhere to the exam board guidelines for feedback. They use a consistent approach with folders, tracking sheets and FAR assessments taking place every 3 weeks or 6 hours of lessons. These grades are recorded on a whole school SIMS PLC marksheet to track progress over time. Feedback is in a range of personal 1:1, verbal, written or in a group, teachers are consistent with each other on the strategy although may be working on a slightly different aspect due to room availability and present practical room restrictions. (E.G. Engineering students are staggering the use of the practical space in k22 to avoid cross contamination and keep students safe)

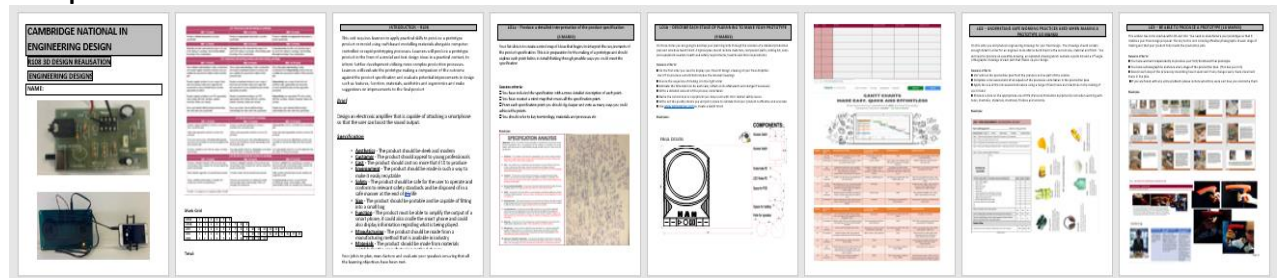
## Example R106 Booklet:



## Example R107 Booklet:



## Example R108 Booklet:





# Key stage 5 Curriculum

– [LINK](#) –

At key stage 5 we offer: -

## 1. BTEC Art and Design – 3D Product Design -Level 3

The creative design industries form an important part of the UK economy and are respected internationally. The industries are worth £9.6 million an hour to the economy, which is approximately £84.1 billion per year. Art and design education provides training and support for occupations in the creative industries such as designers, artists and engineers to name but a few. We have designed a curriculum which takes a holistic approach to education and our aim is to provide young people with the qualifications, memorable experiences and life skills to be adaptable and resilient 21 century learners. Our **intent** is to foster a culture where the quality of education is built around great learning and progress in the classroom which is complimented by memorable experiences for our students. The Technology Department have adopted a vocational BTEC structure to allow students to complete parts of these qualifications through a **staged approach** across Years 12, and 13, thus relieving the pressure of terminal exams at the end of Year 13. For our cohort of students, we believe that this model of learning gives them a mix of assessment styles within their suite of qualifications and still enables students to access higher education in a variety of guises.

## Example Assessment Booklet: Year 13 - Unit 16 A

BTEC - ART AND DESIGN 3D Design Craft Materials, Techniques and Processes											
<b>UNIT 16: A - CURIOSITIES OF CRAFT</b> <b>Assessor: Mr Mark Hallett</b> <b>Issue date: Tuesday 8th September 2020</b> <b>Hand in deadline: Friday 20th November 2020</b> <b>NAME:</b> _____											
<b>Vocational Scenario or Context:</b> A local business enterprise has recently been contracted to provide working space for designer studios. The design crafts and associated design materials had to be sold locally, either online or in a studio across the world. The business has been contracted to work as an assistant designer and you have been tasked to apply for this role and working space as part of your interview, you have been asked to complete and produce an inspiration display of design craft materials, techniques and processes.											
<b>Task 1: Research and Inspiration</b> You will be asked to research and produce an inspiration display of design craft materials, techniques and processes. You will be asked to research and produce an inspiration display of design craft materials, techniques and processes. You will be asked to research and produce an inspiration display of design craft materials, techniques and processes.											
<b>Task 2: Design and Production</b> You will be asked to design and produce an inspiration display of design craft materials, techniques and processes. You will be asked to design and produce an inspiration display of design craft materials, techniques and processes. You will be asked to design and produce an inspiration display of design craft materials, techniques and processes.											
<b>Task 3: Evaluation and Reflection</b> You will be asked to evaluate and reflect on your design and production process. You will be asked to evaluate and reflect on your design and production process. You will be asked to evaluate and reflect on your design and production process.											
<b>Overall Mark Grid</b> <table border="1"> <thead> <tr> <th>Criteria</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>Research and Inspiration</td> <td>Grade 1</td> </tr> <tr> <td>Design and Production</td> <td>Grade 2</td> </tr> <tr> <td>Evaluation and Reflection</td> <td>Grade 3</td> </tr> <tr> <td>Overall Grade</td> <td>Grade 2</td> </tr> </tbody> </table>		Criteria	Grade	Research and Inspiration	Grade 1	Design and Production	Grade 2	Evaluation and Reflection	Grade 3	Overall Grade	Grade 2
Criteria	Grade										
Research and Inspiration	Grade 1										
Design and Production	Grade 2										
Evaluation and Reflection	Grade 3										
Overall Grade	Grade 2										

## Memorable experiences/Extracurricular/links to industry/scheduled trips and visits

- [Key stage 2](#) – Induction Car Design and Fashion Design competition (Year 5 & 6)
- Key stage 3 – Faraday STEM competition – (Multi Academy Trust)
- Key stage 3 – In-house design competitions – Summer Term
- Key stage 4 – Industrial trip to JLR – Engineering in action and factory tour (Restrictions in place currently)
- Key stage 5 – Design and Technology in Action – seminar – Warwick university (Restrictions in place currently)

## Year 7 Example: 2020 (COVID19 - RECOVERY UNIT)

### Resources to help

- Homework Project Sept 2020

- Master Sheets -

- Theory Knowledge -

1 - INTRODUCTION

2 - SKETCHING LESSON

3 - LOGO LESSON

4 - PLANOMETRIC LESSON

5 - 1 POINT PERSPECTIVE LESSON

5 - ASSESSMENT 1 & FAR

6 - 2 POINT PERSPECTIVE LESSON

7 - ASSESSMENT 2 & FAR

7 - ISOMETRIC SHAPES LESSON

7 - THICK LINE AND THIN LINE EXTENSIO...

8 - RENDERING LESSON

8 - SHADING AND TONE LESSON

9 - CRATING LESSON EXTENSION

9 - CYLINDER LESSON EXTENSION

9 - ENLARGEMENT BY GRID LESSON EXT...

9 - EXPLODED VIEW LESSON EXTENSION

9 - EXTERIOR DESIGN LESSON EXTENSION

9 - INTERIOR DESIGN LESSON EXTENSION

9 - NEGATIVE RENDERING LESSON EXTEN...

10 - Key Satq4 - DESIGNING STRATEGY

### LESSON 3: ASSESSMENT TASK (30 minutes)

### INSTRUCTIONS

- Expected:** Create a range of cubes in isometric. Render the cubes to make the shapes look 3D.
- Stretch:** Create a more complex range of shapes (10 shapes) render to make it look 3D. Include shadows and a horizon.
- Challenge:** Create an advanced range of shapes by joining the shapes together and being creative. Render the shapes to make them appear 3D and look like wood. (Include wood grain)

Teacher marking: Your teacher will use this grid to assess your learning. (They will use a highlighter to indicate what level you are currently working at)

Feedback:	NYA	LIP	LIM	LID	LIP	L2M	L2D	L2D+
(You will be given an action to further improve)								
<b>Action:</b>	1 - To support your understanding use the step by step approach to create an ISOMETRIC house. 2 - To improve your understanding create an ISOMETRIC house that includes accurate rendering to make it look more realistic. 3 - To stretch your understanding create a complex ISOMETRIC house, including floor details and surrounding your design.							
<b>Response:</b>	Use the REVERSE of this page to respond to the action(s) given. Then develop on further page(s)							
NAME:	TITLE: 1 POINT PERSPECTIVE ASSESSMENT				DATE:			

**(Foundation) Drawing Skills Project**

**PURPOSE:**

- To develop your knowledge and understanding of Key Stage 3 drawing skills. You will build upon Primary Level skills and lay the foundations for more advanced techniques.
- To learn a variety of approaches to develop creative ideas and avoid stereotypical responses.
- To prepare you for future Design and Technology at Bilston School, as drawing is a key element on the syllabus and a key part of most design courses at university.

**Design Brief:** You have 1 lesson and 10 lessons to develop your drawing skills

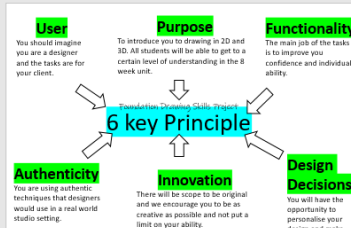
**Teacher:** Design and Technology

**Student:** Design and Technology

**Year 7**

**Topic/Title:** Design and Technology

**Iteration:** For 1 lesson



**Introduction 5**

**Success Criteria:** Your work will be assessed against this success criteria

Task	NYA	LIP	LIM	LID	L2P	L2M	L2D	Assessment
1								Assessment 1
2								
3								
4								
5								Assessment 2
6								
7								
8								

## Year 9 – Packaging (NEW 2020)

**Example Layout**

**Open questions:**

Open Question 1:

Open Question 2:

**Introduction - Design Mosaic 10**

1. Do you feel that there are sustainability issues surrounding mobile phones & why?

2. How important is sustainability within a mobile phone?

3. Do you think the materials currently used for mobile phones are acceptable? What is your opinion and why?

**NAME:** \_\_\_\_\_ **TITLE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**Primary Research** is based on raw data, whereas secondary research is based on analysed and interpreted information. The primary research, the data is collected by the researcher himself or by the person hired by him

**Closed Questions** are questions that have short responses. Closed Questions' answers are short and factual.

**Open Questions'** answers are often descriptive and explanatory. Open Questions begin with words like how, why, explain, describe, etc

**Objective:** To learn how to design and make packaging, through the creation of a chocolate box.

Lesson by lesson plan:	NYA	LIP	LIM	LID	LIP	L2M	L2D
5		1	2	3	4	6	8
<b>Research:</b> Primary method	Not yet achieved	I have written a questionnaire with 40 closed questions	In addition I have added 42 open questions	I have written 3 further interview questions to ask my chosen user group	I have written a short paragraph explaining the best way to show my results in order to analyse further	I have written an in-depth email to send to a manufacturer with the intention of finding out more	X

### LESSON 6: ASSESSMENT TASK

Teacher marking: Your teacher will use this grid to assess your learning.

Feedback:	NYA	LIP	LIM	LID	LIP	L2M	L2D	L2D+
(You will be given an action to further improve)								
<b>Action:</b>	1 - To support your understanding complete a fully short questionnaire? Ask a question and gives 5 closed options to reach. 2 - To improve your understanding create bar charts and pie charts to display your made up results. 3 - To stretch your understanding suggest some creative ways that you can gather research using websites and social media?							
<b>Response:</b>	Use the space below to respond and further improve your understanding.							
NAME:	TITLE: Primary Research				DATE:			

## Year 9 – Desk-Tidy (RECOVERY UNIT - New 2020)

### ASSESSMENT TASK: (30 minutes)

### INSTRUCTIONS

Select one of the following:-

- Expected:** Sketch a cube in isometric and add details to make it look like a desk tidy. Render it to look 3D.
- Stretch:** Sketch a design for the desk tidy in isometric showing several features. Label what the parts do and render it to look 3D.
- Challenge:** Sketch a original design for the desk tidy in isometric. Render the design to look like realistic materials. Explain how all the parts work and give reasons for choosing materials.

Teacher marking: Your teacher will use this grid to assess your learning. (They will use a highlighter to indicate what level you are currently working at)

Feedback:	NYA	LIP	LIM	LID	LIP	L2M	L2D	L2D+
(You will be given an action to further improve)								
<b>Action:</b>	1 - To support your understanding copy several shapes in isometric. 2 - To improve your understanding copy and render several shapes in isometric. 3 - To stretch your understanding sketch several complex shapes in isometric including cylinders/curves. Render the shapes to look like a material of your choice.							
<b>Response:</b>	Use the REVERSE of this page to respond to the action(s) given.							
NAME:	TITLE: ISOMETRIC DESIGN ASSESSMENT				DATE:			

**Response:** Use this page to respond to the action(s) given.

**Action:**

- To support your understanding copy several shapes in isometric.
- To improve your understanding copy and render several shapes in isometric.
- To stretch your understanding sketch several complex shapes in isometric including cylinders/curves. Render the shapes to look like a material of your choice.

1

2

3

NAME:

TITLE: ISOMETRIC DESIGN ASSESSMENT

DATE: