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| **Design and Food Technology**  **Medium Term Planning** |
| **Year 4** |
| **Throughout the year*** State what products they are designing & making and say whether their products are for themselves or other users.
* Describe the purpose of their products
* Say how their products will work
* Use finishing techniques, including those from art and design
* Share and clarify ideas through discussion
* Make simple judgements about their products and ideas against design criteria
* Refer to their design criteria as they design and make
* Apply a range of finishing techniques, including those from art and design, with some accuracy
* Evaluate: Use their design criteria to evaluate their completed products and identify the strengths and areas for development in their ideas and products.
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| **Autumn****Gorilla/ Environmental Awareness – Textiles** |
| **Design Brief****User/Purpose** | **Key Learning** | **Key Vocab** | **End Points** |
| You have been asked to design an item of clothing that is eco-friendly. The could be using recycled, organic or natural materials. Your designs will be given to our school Eco Council to decide which designs are the most environmentally friendly but also appealing to a current market. Which materials do you think would be the most suitable?   | Design * use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
* generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make* select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
* select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities

Evaluate* investigate and analyse a range of existing products
* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Technical Knowledge* apply their understanding of how to strengthen, stiffen and reinforce more complex structures
* understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
 | * Environment
* Eco-friendly
* Environmental Factors
* Suitability
* Durability
* Shape
* Assemble

Prototype | * To learn about what materials are made from and how they are made.
* To understand the impact that the making of certain materials has on the environment.
* To understand and know to select more environmentally friendly materials
* To be able to name some famous people linked to the environment (Greta Thunberg, David Attenborough) and understand how their messages impact clothing and the environment.
* To be able to assemble their design effectively; ensuring that they product is not only environmentally friendly, but us also durable and appealing.
* To create a product that fits the design brief.
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| **Spring****Naples (Volcanos and eruptions) – Structures** |
| **Design Brief****User/Purpose** | **Key Learning** | **Key Vocab** | **End Points** |
| The volcano is about to erupt and destroy the town and all of its buildings. Can you help to build a wall or barrier around the volcano to help save the town. You will need to test the strength and durability of your wall with a real volcano! Can you help to save the town? | Design* use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

Make* select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

Evaluate* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Technical Knowledge* apply their understanding of how to strengthen, stiffen and reinforce more complex structures
 | * build
* stable
* reinforce
* materials
* durability
* suitability
* waterproof
* strength
* size
* protect
 | * To be able to design and make a strong and durable barrier using effective and suitable materials to hold back the volcano.
* To test their structure by creating a real erupting volcano.
* To adapt their design, model and materials along the way.
* To be able to evaluate skills developed as well as effectiveness of their design model.
* To create a product that fits the design brief.
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| **Summer****Rainforests – Food Technology** |
| **Design Brief****User/Purpose** | **Key Learning** | **Key Vocab** | **End Points** |
| You have been learning about fruits that are grown outside of the UK. These fruits are tasty but can also contain high levels of sugar. Can you design and make a healthy fruit kebab using fruits from outside of the UK, but you must also consider the sugar content for your design. Which fruits will be the best to use in your design?  | Design* use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

Make* select from and use a wider range of ingredients.

Evaluate* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Cooking and Nutrition* prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
* understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
 | * Balanced diet
* In moderation
* Produce
* Continent
* Conditions/growing conditions
* Environment
* Seasonality
 | * To understand the importance of a balanced diet; including sugar levels in healthy fruits and how this can have an impact on teeth.
* To understand where fruits come from; including where, how and when they can be grown.
* To be able to select fruits for their sugar levels.
* To create a product that fits the design brief.
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