Gillespie Primary School



Design and Technology progression overview 2022/2023

Design and Technology - Progression Framework (Knowledge, Skills and Understanding)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--|--|--|--|--|---|--|
| 1.Background Research Understanding contexts, users and purposes Explore existing products | Year 1 Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find the product | Year 2 Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find the product Identify the materials used to make the product Express an opinion about the product | Identify who made a specific product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use Research facts about famous inventors/ chefs / designers linked to product | Identify who made a specific product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use Research facts about famous inventors/ chefs / designers linked to product | Identify who made a specific product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product Research facts about famous inventors/ chefs / designers linked to product | Identify who made the product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product and whether it has any other purposes, e.g. Leading innovation of the time, trend setting Research facts about famous inventors/ chefs / designers linke to product |

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| 2.Design Criteria | Begin to draw on | Draw on own and | Understand and | Understand and | Understand and | Understand and gather |
| | their own | other people's | gather information | gather information | gather information | information about what a |
| | experiences and | experiences and | about what a | about what a | about what a | particular group or people want |
| Understanding | existing products to | existing products to | particular group or | particular group or | particular group or | from a product e.g. using |
| their intended | develop ideas | develop ideas | people want from a | people want from a | people want from a | questionnaires, surveys |
| users and their | | | product | product | product e.g. using | |
| own product | Explain what | Explain what | | | questionnaires, | Describe the purpose of their |
| own product | product they will | product they will | Describe the | Describe the | surveys | product |
| | be designing and | be designing and | purpose of their | purpose of their | | |
| | making | making | product and how it | product | Describe the | Identify design features that will |
| | | | will work | | purpose of their | appeal to intended users |
| | Explain who their | Explain who their | | Identify design | product | |
| | product will be | product will be | Identify design | features that will | | Explain how parts of their product |
| | used by | used by | features that will | appeal to intended | Identify design | will work |
| | | | appeal to intended | user | features that will | |
| | Describe what their | Describe what their | users | e deteka aras | appeal to intended | Create a design description for |
| | product will be | product will be | e deleter cons | Explain how parts | users | their product |
| | used for | used for and how it will work | Explain how parts | of their product | Fundain havu namta | Highlight the circums at aftine a |
| | | WIII WOLK | of their product work | work | Explain how parts of their product will | Highlight the impact of time, resources and cost within their |
| | | Explain why their | WOLK | Develop their own | work | design ideas |
| | | product is suitable | Generate realistic | design criteria and | WOIK | design ideas |
| | | for the intended | ideas that meet | use for planning | Develop their own | Generate innovative ideas |
| | | user | needs of user | ideas | design criteria and | that meet needs of user |
| | | usei | needs of diser | lucas | use for planning | that meet needs of diser |
| | | | | Generate realistic | ideas | |
| | | | | ideas that meet | 14643 | |
| | | | | needs of user and | Generate | |
| | | | | take into account | innovative ideas | |
| | | | | availability of | that meet needs of | |
| | | | | resources | user and take into | |
| | | | | | account availability | |
| | | | | | of resources | |
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| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| 3. Planning | Discuss what their | Discuss what their | Share and discuss | Share and discuss | Share and discuss | Share and discuss ideas with |
| | steps for making | steps for making | ideas with others | ideas with others | ideas with others | others |
| Communicating | could be | could be | | | | |
| ideas and | | | Order the main | Order the main | Record a step by | Record a step by step plan for |
| creating | Represent ideas | Represent ideas | stages of making | stages of making | step plan for | making |
| prototypes for | through talking and | through talking, | | | making | |
| product | drawing | drawing and | Choose materials | Choose materials | D 1 11 1 | Produce lists for the tools, |
| μ. σ σ. σ. σ. | | computing – | to use based on | to use based on | Produce lists for | equipment and materials they will |
| | | (where | suitability of their | suitability of their | the tools, | be using |
| | | appropriate) | properties | properties | equipment and materials they will | Choose materials to use based on |
| | | Choose materials | Represent ideas in | Represent ideas in | be using | suitability of their properties and |
| | | to use based on | diagrams (labelled), | diagrams (labelled), | be using | aesthetic qualities |
| | | suitability of their | annotated sketches | annotated sketches | Choose materials | destrictie quanties |
| | | properties | and computer | and computer | to use based on | Represent ideas in diagrams |
| | | F - F | based programmes | based programmes | suitability of their | (labelled), annotated sketches |
| | | Create | (where | (where | properties and | and computer based programmes |
| | | templates/pattern | appropriate) | appropriate) | aesthetic qualities | (where appropriate) |
| | | pieces and explore | | | | |
| | | materials whilst | Create pattern | Create pattern | Represent ideas in | Create pattern pieces and |
| | | developing ideas | pieces and | pieces and | diagrams (labelled), | prototypes |
| | | | prototypes | prototypes | annotated sketches | |
| | | | | | and computer | |
| | | | | | based programmes | |
| | | | | | (where | |
| | | | | | appropriate) | |
| | | | | | Cuasta mattama | |
| | | | | | Create pattern | |
| | | | | | pieces and prototypes | |
| | | | | | prototypes | |
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| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| 4. & 5. Making | Use materials - | Use materials - | Use materials – | Use materials – | Use materials – | Use materials – |
| _ | construction | construction | construction | construction | construction | construction materials and kits, |
| Selecting the | materials and kits, | materials and kits, | materials and kits, | materials and kits, | materials and kits, | textiles, food, mechanical and |
| tools and | textiles, food and | textiles, food and | textiles, food, | textiles, food, | textiles, food, | electrical components |
| applying the | mechanical | mechanical | mechanical and | mechanical and | mechanical and | |
| practical skills | components | components | electrical | electrical | electrical | Choose suitable tools for making |
| and techniques to | | | components | components | components | whilst explaining why they should |
| | Choose suitable | Choose suitable | | | | be used |
| make quality | tools for making | tools for making | Choose suitable | Choose suitable | Choose suitable | |
| products | | whilst explaining | tools for making | tools for making | tools for making | Use design criteria whilst making |
| | Begin to make their | why they should be | whilst explaining | whilst explaining | whilst explaining | |
| | design using | used | why they should be | why they should be | why they should be | Follow safety and food hygiene |
| | appropriate | | used | used | used | procedures |
| | techniques | Begin to make their | | | | |
| | | design using | Use design criteria | Use design criteria | Use design criteria | Measure, mark, cut and shape |
| | Follow safety and | appropriate | whilst making and | whilst making and | whilst making | materials and components |
| | food hygiene | techniques | use appropriate | use appropriate | | accurately |
| | procedures | | techniques | techniques | Follow safety and | |
| | | Follow safety and | | | food hygiene | Join, assemble and combine |
| | With help measure, | food hygiene | Follow safety and | | procedures | materials and components |
| | mark, cut and | procedures | food hygiene | Follow safety and | | accurately |
| | shape materials | | procedures | food hygiene | Measure, mark, cut | |
| | and components | With help measure, | | procedures | and shape | Demonstrate problem solving |
| | | mark, cut and | Measure, mark, cut | | materials and | skills when encountering a mistake |
| | Begin to Join, | shape materials | and shape | Measure, mark, cut | components | or practical problem |
| | assemble and | and components | materials and | and shape | accurately | 6 |
| | combine materials | with some accuracy | components with | materials and | | Use finishing techniques that |
| | together using | Charles India | some accuracy | components with | Join, assemble and | involve a number of steps, |
| | temporary | Start to Join, assemble and | المنام معموما | some accuracy | combine materials | including skills learnt in Art |
| | methods e.g. glue, | combine materials | Join, assemble and combine materials | المنام معموسه المام معمل | and components | accurately |
| | masking tape, split | | | Join, assemble and combine materials | accurately | |
| | pins | in order to make a product | and components | and components | Demonstrate | |
| | | product | with some accuracy | with some accuracy | problem solving | |
| | | Use finishing | Use finishing | with some acturacy | skills when | |
| | | techniques, | techniques, | Use finishing | encountering a | |
| | | techniques, | including skills | techniques, | encountering a | |
| | | | Including Skills | techniques, | | |

| | | including skills learnt in Art | learnt in Art with some accuracy | including skills learnt in Art with some accuracy | mistake or practical problem Use finishing techniques, including skills learnt in Art | |
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| | Year 1 | Year 2 | Year 3 | Year 4 | accurately Year 5 | Year 6 |
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| 6. Evaluation Referring to planning and initial ideas in evaluating their product | Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas | Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas Suggest how their product could be improved | Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product | Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product | Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product | Use design criteria to evaluate product – looking at quality of end product and design and whether it is fit for its intended purpose Consider the views of others, including intended user, whilst evaluating product |
| 7. Technical Knowledge To know: | The simple working characteristics of materials and components The movement of simple mechanisms such as levers, sliders, wheels and axles How freestanding structures can be made stronger, stiffer and more stable | | How to use learning from science and m That materials have both functional pro That mechanical and electrical systems Mechanical systems create movement e Electrical circuits and components can b Program, monitor and control their process | | perties and aesthetic q nave an input, process e.g. levers e used to create functi | iualities and output ional products |
| | | Tea | aching Cooking | and Nutrition | | |
| Understanding where food comes from | Across KS1: Understand that food comes from plants or animals | | Lower KS2: Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe | | and that this happen | ods are reared, caught, or grown s in the UK and across the globe seasons can affect food produce |

| | Understand that food has to be farmed, caught, or grown | Understand that recipes can be changed by adding or taking away ingredients Understand that the seasons can affect food produce | Understand that sometimes, raw ingredients need to be processed before they can be used in cooking (E.g. De-feathering a chicken) Understand that recipes can be adapted to change the appearance, taste and aroma of a dish |
|---|---|--|--|
| Understanding food preparation, cooking and nutrition | Across KS1: Sort foods into the 5 groups using The Eat well Plate Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely without a heat source Use cooking techniques such as: cutting, peeling and grating | Lower KS2: Sort foods into the 5 groups using The Eat well Plate and identify that this makes up a healthy diet Identify that food and drink are needed to provide energy for a healthy and active lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely, where needed with a heat source Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking | Upper KS2: Sort foods into the 5 groups using the eat well Plate and identify that this makes up a healthy diet Identify that food and drink provide certain nutritional and health benefits which support a healthy lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely, where needed with a heat source Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking |