DT at Kimbolton St James’ Primary School

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| **KS1 Knowledge Cycle A** |
| **Topic** | **Vocabulary** | **Locational, Human and Physical Knowledge** |
| **A castle with a moving drawbridge** | product, model, design, measure, tools, materials, assemble, evaluate, strengths, improve | **Design: Developing, planning and communicating ideas*** I can design a castle based on my work in history and English
* I can say how my drawbridge will work.
* I can use my knowledge from making other products to help me create my own ideas.
* I can use simple design criteria to help develop my ideas as I am making my drawbridge.
* I can develop my design ideas through discussion, observation, drawing and modelling.
* I can model my ideas by exploring materials and components and by making templates and mock-ups.

**Make*** I can use a range of tools safely and with some accuracy. (scissors/hole punch)
* I can measure, mark out, cut and shape a range of materials
* I can assemble, join and combine materials using glue and masking tape

**Evaluate*** I can talk about my design ideas and what I am making with other children and adults
* I can evaluate my product against my design criteria.
* I can see suggest how my castle and drawbridge could be improved

**Technical Knowledge** * I can explore the use of levers, sliders and winding mechanisms to lift the drawbridge
* I know how freestanding structures can be made stronger, stiffer and more stable
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| **Boats** | boat, mast, sail, engine, wind power, winding mechanism, float, load, design, measure, tools, materials, assemble, evaluate, strengths, improve | **Design: Developing planning and communicating ideas*** I can design a boat based on the story ‘Lost and Found’
* I can use design criteria to develop my ideas
* I can describe what my boat is used for
* I can model ideas by exploring different materials and components and by making templates and mock-ups
* I can develop my design ideas through discussion, observation, drawing and modelling

**Make*** I know how to use a range of tools safely and with some accuracy (scissors/hole punch)
* I can measure, mark out, cut and shape a range of materials
* I can assemble, join and combine materials in order to make my boat
* I can choose finishing techniques based on my own ideas

**Evaluate** * I can evaluate my boat against my design criteria
* I can make changes to my product to improve it
* I can talk about my evaluation with other children and adults

**Technical Knowledge*** I can explore the use of mechanisms to power my boat such as winding mechanisms or wind power
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| **Fruit Salad** | fruit, vegetables, portions, cut, peel, chop, knife, peeler, chopping board, hygiene | **Cooking and Nutrition*** I know that I should eat at least 5 portions of fruit and vegetables every day.
* I can cut, peel and chop fruit safely
* I can prepare simple dishes safely and hygienically without using a heat source.

**Design*** I can design a fruit salad for a target group
* I can say how my fruit salad will be suitable for the target group
* I can generate ideas based on my own experience
* I can use my knowledge of existing products to help come up with ideas
* I can develop and communicate my ideas through talking and drawing

**Make*** I can use tools and equipment safely to prepare fruit
* I can follow procedures for safety

**Evaluate*** I can talk about my design ideas and what I am making
* I can make simple judgements about my fruit salad against design criteria

I can suggest how my fruit salad could be improved |

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| **Skills** |

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| KS1Including direct referenceto national curriculum aims | **Cooking and Nutrition**Understand and apply the principles of nutrition and learn how to cook | **Design: Developing, Planning and Communicating Ideas** | **Make**Working with tools, equipment, materials and components to make quality products | **Evaluate**Evaluating processes and products | **Technical Knowledge**Develop technical expertise and knowledge |
| Understand context, users and purpose | Generate, develop, model and communicate ideas |
| KS1 | * That all food comes from plants or animals
* That food has to be farmed, grown elsewhere (e.g. home) or caught
* How to name and sort foods into the five groups of the Eatwell plate
* That everyone should eat at least five portions of fruit or vegetables every day
* How to prepare simple dishes safely and hygienically, without using a heat source
* How to use techniques such as cutting, peeling, basic chopping and grating.
 | * Work confidently within a range of contexts, such as imaginary, story based, home, school, gardens, playgrounds, local community, industry and the wider environment
* State their products and target audience.
* Say whether their products are for themselves or for other users
* Describe what their products are for
* Say how their products will work
* Say how they will make their products suitable for their intended users
* Use simple design criteria to help develop their ideas
* Identify a target for what they intend to design and make based on design criteria
* Generate ideas by drawing on their own experiences
* Use knowledge of existing products to help come up with ideas
* Develop and communicate ideas by talking and drawing
* Model ideas by exploring materials, components and construction kits and by making templates and mock-ups
* Use Tinkercad to develop and communicate ideas

- | * Plan by suggesting what to do next
* Use a range of tools and equipment safely, explaining their choices.
* Select from a range of materials and components according to their characteristics
* Follow procedures for safety.
* Measure, mark out, cut and shape materials and components
* Assemble, join and combine materials and components
* Use finishing techniques, including those from art and design
 | * Talk about their design ideas and what they are making
* Make simple judgements about their products and ideas against design criteria
* Suggest how their products could be improved
 | * Explore the uses of mechanisms such as levers, sliders, wheels and axles
* How freestanding structures can be made stronger, stiffer and more stable
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