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 |
| **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 |
| **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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| KS1  Including direct reference  to 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 |