St Cuthbert's Knowledge Organiser Design & Technology
Lower Key Stage 2 2023 – 2024
Mrs Wilson

Subject	Project 1	Project 2	Project 3
Design Tech	**Textiles – Jungle phone case** **Skills** ✓ Use a wider variety of stitches ✓ observation and design of textural art ✓ experimenting with creating mood, feeling, movement- ✓ compare different fabrics ✓ Use smaller eyed needles and finer threads **Knowledge** Children will select suitable tools/equipment, explain choices; begin to use them accurately. They will select appropriate materials, fit for purpose. They should work through a plan in order then consider how good their phone case will be. They will begin to assemble, join and combine felt and its components with some accuracy. **Reason** This topic is taught alongside the Geography topic about the Jungles and deserts and this will inform their theme.	**Design Skills – working to a brief to make a viking shield** **Skills** ✓ Task analysis ✓ Product Analysis ✓ How to write a specification ✓ Initial ideas and how to annotate ✓ How to write an evaluation **Knowledge** Children will build on what they learnt in ks1 about observation and design and develop their understanding of the importance of working independently. They will learn about what the Vikings needed their shields for and what materials would be available to them. They will learn about the colours and patterns used on individual shields and use this knowledge to design their own shield. **Reason** In history, the children are learning about the Vikings and will use this knowledge to design their shields.	**CAD - tinkercad** **Skills** ✓ Basics of tinkercad software ✓ How to convert 2D drawings to 3D ✓ Modelling 3D products in CAD ✓ Developing a 3D design in CAD ✓ Communicating their design **Knowledge** Children will learn about this software and how to use it to create 3D products. They will have an Introduction to CAD skills, learn about plan and elevation. Then how to build in CAD, creating features and groups. **Reason** In IT, children will have already learnt to use different programs on the PC and this project will extend their knowledge and apply what they have learnt to a design brief. CAD software is used widely in the real world and this topic is a great introduction into the field of 3D design.