Design and Technology at Alexandra Primary School: Designing

<u>Year 2</u>

Generate and communicate ideas through discussion, drawings and labelling.

Begin to use their own experience and that of others to develop design ideas.

Identify a purpose for what they intend to design and make. Understand how to identify a target group for what they intend to design and make based on a design criteria.

Develop ideas through making templates and mock ups of their ideas or using ICT.

<u>Year 3</u>

With growing confidence, generate ideas for a product considering its purpose and that of the user. Identify a purpose and establish criteria for a successful product. Know to make drawings with labels when designing. Begin to understand how well products have been *designed, made,* what *materials* have been used and the *construction process*.

Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.

When planning, explains their choice of materials and components including function and aesthetics.

Perform

<u>Year 1</u>

Begin to plan, develop and communicate their ideas through drawings and/ or using ICT.

Begin to understand the function of existing products: what they are for, how they work and the materials used. Begin to generate ideas based on their own experiences. Begin to understand how to identify a target group for what they intend to design/ make based <u>on</u> a design criteria.



Early Years

Explain what they are making and which materials they are using.

Select materials to meet a simple design criteria. Use adhesives to join materials.

Select and name suitable tools required for their work. Discuss their work as it progresses.



Year 6

Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **C**omputer **A**ided **D**esign.

Use research to inform the design of innovative, functional, appealing products that are fit for purpose.

Skilfully apply a range of finishing techniques, including those from Art and Design.

Prepare a specification for design - incorporating cross curricular links with Maths and Science. Select materials, tools and techniques appropriate for work.

Suggest alternative methods of making if the first attempts fail.

Know how much products cost to make. Know how sustainable and innovative they are and

the impact products have beyond their intended purpose.

Identify the strengths and areas for development in their ideas and products.

<u>Year 4</u>

Start to generate ideas considering the purposes for which they are designing – incorporating cross curricular links with Maths and Science.

Confidently make annotated drawings from different perspectives showing specific features.

Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.

Explore inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.

When planning explains their choice of materials and components according to function and aesthetic.

<u>Year 5</u>

Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and **C**omputer **A**ided **D**esign.

Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.

With growing confidence apply a range of finishing techniques, including those from Art and Design.

Draw up a specification for their design - incorporating cross curricular links with Maths and Science.

Start to understand how much products cost to make, how

sustainable and innovative they are and the impact products have beyond their intended purpose.

