

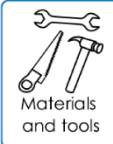









Rose Hill Primary School

Progression of Skills

Subject: **Design and Technology**

|   | EYFS   | YEAR 1  | YEAR 2  | YEAR 3  | YEAR 4  | YEAR 5   | YEAR 6  |
|---|--|---|---|---|---|--|---|
| <br><br><b>Design</b>   | I can select appropriate resources with support.   | I can consider what materials and tools may be best.  | I can explore existing products to help me select what materials and tools may be best for my project.                        | I can research existing products and use this knowledge to refine ideas and select materials.                     | I can develop a clear idea of what must be done, planning how to use materials, equipment and processes.  | I can plan the order of my work, choosing appropriate tools, materials and techniques  | I can independently model and refine design ideas and materials by making prototypes and using pattern pieces   |
|   | I can use gestures, talking, drawing or arrangements of materials/components to show design                | I can design using pictures, words, models and diagrams.  | I can show and explain ideas, saying what product is being designed, how the product will be made and who the product is for. | I can make labelled drawings from different views showing specific features                                       | I can begin to research and develop design criteria for a successful product that is fit for purpose and aimed at particular individuals or groups      | I can communicate my own ideas in a variety of ways including discussion, annotated sketches, cross sectional diagrams, prototypes and computer-aided design         | I can use research and develop design criteria which enables me to design products which are innovative, functional, appealing, fit for purpose and aimed at particular individuals or groups |
|   | I can use some of the language of designing and making (join, build, shape, longer, shorter, heavier etc.) | I can generate simple ideas and explain the purpose of my product using the language of designing and making.                             | I can explain the purpose of a product, how it will work and how it will be suitable for the intended user                    | I can generate, develop and communicate own ideas, using appropriate language, considering the purpose and user/s | I can suggest alternative methods of making if the first attempt fails, consider the purpose of the user and using technical vocabulary e.g: evaluation | I can critically evaluate the quality of my design through self-reflection and peer review.  | I can articulately and critically evaluate the quality of my design and suggest improvements using key vocabulary.  |
| <br><br><b>Make</b> | I can construct with a purpose, selecting and using a variety of materials and resources                   | I can select from a small range of materials and components and discuss their characteristics to explain why I have chosen this material. | I can select from a wide range of materials and components according to their characteristics.                                | I can select appropriate materials from a range and explain how they are fit for purpose.                         | I can select appropriate materials, fit for purpose and explain my choices.   | Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties. | Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  |
|   | I can use simple tools and techniques  | I can use scissors and glue independently to  | I can measure, mark out, cut and shape  | I can measure, mark out, cut out and shape  | I can measure, mark out, cut out and shape  | I can measure, mark out, cut out and shape my product  | I can measure using a variety of tools, cut out using appropriate   |

|  |  |  |  |  |   |  |   |
|--|--|--|--|--|---|--|---|
|  | (scissors and glue to cut and stick).  | shape components and materials.  | materials and components.  | materials/components mostly accurately and independently.  | materials/components accurately and independently.  | from a range of techniques.  | tools and shape my product with a variety of techniques.  |
|  | I can record experiences by drawing, writing or voice recording                      | To develop range of finishing techniques when competing a project.   | To use finishing techniques and articulate how I have done this.   | I can work through my plan with support to plan what techniques I will use.  | I can work through my plan in order to express what techniques I will use.  | I can apply a range of finishing techniques with some accuracy.  | I can select and apply a range of finishing techniques with accuracy.   |
|  | I can select tools and techniques to shape, assemble and join.                       | To select from a range of tools and equipment with support.  | To select from a range of tools and equipment independently.   | I can select suitable tools and equipment and explain some of the choices I made when selecting them.                        | I can select suitable tools and equipment, explain choices in relation to required techniques and use accurately  | I can select from a wide range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing, mostly accurately. | I can select from a wide range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing, accurately and independently. |
|  | I can build/construct with a wide range of objects.                                  | I can assemble, join, and combine materials with support.  | I can assemble, join, and combine materials and components with a range of techniques.                           | I can assemble, join and combine materials with a range of techniques and tools and increasing my independence.              | I can assemble, join and combine materials and components with some accuracy.                                     | Assemble, join and combine materials and components for a range of products and mostly accurately.   | I can assemble, join and combine materials and components for a range of products with accuracy.  |
|  <p>Communicating ideas</p> <p>Evaluate</p> | - I can dismantle, examine, and talk about existing objects/structures               | I can use existing products to help improve my ideas and discuss this when making my product.  | During the making process I can talk about and evaluate my design ideas and what I am making.                    | I can evaluate my work with the support of a partner and begin to consider the views of others.                              | I can evaluate my own work by considering the views of others.  | I can consider the views of others and other items to improve my work.   | I can investigate and analyse a range of existing products and use this to improve their own products.  |
|  | I can look at similarities and differences between existing objects/materials/tools. | I can discuss how my product is similar/different to and existing product.   | I can consider existing products when examining and planning my own product.                                     | I can evaluate simple existing products.   | I can evaluate simple existing products and discuss some of their strengths/weaknesses.                           | I can discuss how key events and individuals have contributed to our current world.  | I can understand how key events and individuals in design technology have helped to shape the world.  |
|  | I can consider if their finished product need adapting                               | I can make some simple judgements about my project e.g. what went well, what could be improved? Using the design criteria to support this. | I can make simple judgements about my finished product against the design criteria.                              | I can evaluate my product against the original design specification and discuss how I could improve my design based on this. | I can evaluate my product against the original design specification both during and at the end of the assignment. | I can plan my own design criteria based on a project brief.  | I can evaluate my ideas and products against my own design criteria.  |
|  | I can consider and manage some risks   | I can discuss some of the ways we stay safe when using tools e.g. scissors.  | I can discuss some of the ways we stay safe using simple tools and can discuss what the risks we might face are. | I can explore a range of tests to evaluate my products and discuss the risks associated with these tests.                    | I can evaluate using appropriate tests and discuss how we can do this safely.                                     | I can apply my understanding of the risks which my project might involve to make safe decisions.   | I can explain the risks associated with specific tools and discuss how I will navigate this within my project and when evaluating.                                    |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| Technical knowledge<br> Textiles<br> Structures<br> Mechanisms<br> Electricals | I can begin to understand how to make structures stronger                                    | I understand the words stronger, stiffer and stable and can discuss why they are important to a structure. | I know a range of techniques to make a structure stronger, stiffer, and more stable.                                 | I can use previous knowledge to independently make a new structure stronger and more stable.               | I understand how to make a structure stronger and stiffer and can use this to improve shell structures.      | I can explore complex structures and discuss ways to make them stronger, stiffer and more stable.            | I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures to improve my products.     |
|  | I can explore books with mechanisms in them e.g., pop up books                               | I can explore where you might find simple mechanisms e.g., books, cars, toys.                              | I can explore, use, and make simple mechanisms such as levers, sliders, wheels and axles.                            | I can explore products which move and explore how it might work.   | I know how mechanical systems such as levers and linkages or pneumatic systems create movement               | I can explore products which move. I can discuss what mechanisms the product is using and how it works.      | I can select and understand a range of mechanical systems within my products e.g. gears, pulleys, cams, levers and linkages. |
|  | I can use items which have electrical systems within them.                                   | To talk about how things happen and how they work  | To talk about why things happen with electronics or how they work.   | To construct a simple electrical circuit and discuss its parts.  | I understand how simple electrical components can be used to create functional products.                     | I can independently discuss how electrical systems can be used in my products.                               | I understand, use and discuss the electrical systems in my products.   |
|  | I can complete a simple program on a computer.   | I can recognise a range of technology is used in places such as home and schools.                          | I can control motion on an existing product by specifying the number of steps to travel direction and turn.          | I can create use specified screen coordinated to control movements of a pre-existing product.              | I know how to program a computer to control my product.  | I can set events to control other events by using a computer.  | I can apply my understanding of computing to program, monitor and control my products.                                       |
|  |  |  |  |  |  |  |  |
| Cooking and nutrition<br> Nutrition   | I can begin to understand some food preparation tools, techniques and processes with support | I can discuss how we might prepare a simple dish and what hygiene is.                                      | I can prepare simple dishes safely and hygienically.   | I can discuss which dishes might need a heat source and why.   | I can prepare a variety of dishes possibly using a heat source.  | I can discuss the details of the dish I am going to prepare and explain the techniques I will use.           | I can prepare and cook a variety of predominantly savoury dishes safely and hygienically.                                    |
|  | I can practise stirring, mixing, pouring, blending with support                              | I can discuss what food preparation techniques I may need for a simple dish.                               | I can use food preparation techniques such as peeling, cutting, and grating with guidance.                           | I can discuss previously learnt cooking techniques and explain how I will apply them to dish with support. | I can increase my independence when using food preparation techniques such as cutting, peeling, and grating. | I can discuss previously learnt cooking techniques and discuss how I may apply them to a dish independently. | I can select and use a range of cooking techniques independently such as peeling, chopping, slicing, grating, mixing, spread |
|  | I can begin to understand that eating well contributes to good health                        | I know how to name and sort food into the five main food groups  | I understand what a healthy diet is and that everyone should eat five portions of fruit and/or vegetables every day. | I know that a healthy diet is made up from a variety and balance of different food and drink.              | I understand that to be active and healthy, food and drink are needed to provide energy for the body         | I can independently select which food groups are needed to help make a meal healthier.                       | I can understand and apply the principles of a healthy and varied diet.  |
|  | I understand food comes from a variety of places.  | I understand what is needed to help  | I understand the differences between the   | I can understand where food comes from and what  | I know that food is grown (such as tomatoes, potatoes  | I understand how the seasons affect the availability of food.  | I know where and how a variety of ingredients are grown,   |

|  |  |                             |                        |   |   |  |                              |
|--|--|-----------------------------|------------------------|---|---|--|------------------------------|
|  |  | vegetables and fruits grow. | different food groups. | techniques are used to get them to our homes. | and wheat and potatoes), reared (such as pigs, chickens and cattle), and caught (such as fish) in the UK, Europe and the wider world. |  | reared, caught and processed |
|--|--|-----------------------------|------------------------|---|---|--|------------------------------|