



Progression of Learning Objectives and Skills in Design and Technology at St. John's Primary School

Skill:	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluation of existing products	<p>LO: To recognise characteristics of familiar products</p> <ul style="list-style-type: none"> *Look at different examples of products *Look for similarities and differences *Identify key features/ characteristics <p><u>Key Questions:</u> What is the product? Who uses it? What does it do? How does it work? What materials make it?</p>	<p>LO: To explore and evaluate existing products</p> <ul style="list-style-type: none"> *Look at different examples of products *Identify key 'parts' and features *Identify materials used *Know the purpose of a product *Know the audience of a product *Explain features and materials used <p><u>Key Questions:</u> What is the product? Who uses it? What does it do? What is its purpose? How does it work? What materials make it? What different 'parts' does it have?</p>	<p>LO: To explore and disassemble existing products</p> <ul style="list-style-type: none"> *Investigate similar products to the one to be made to give starting points for a design. *Know the purpose and audience for a product *Draw/sketch products to help analyse how they are made <p><u>Key Questions:</u> What is the product? Who is the audience for it? What does it do? What is its purpose? How does it work? What materials are used to make it? Why? What different 'parts' does it have? What are the features of the product?</p>	<p>LO: To investigate and disassemble existing products</p> <ul style="list-style-type: none"> *Investigate similar products to the one to be made to give starting points for a design. *Compare products to identify common features. *Know the purpose and audience for a product *Draw/sketch products to help analyse how they are made. <p><u>Key Questions:</u> What is the product? Who is the audience for it? What does it do? What is its purpose? How does it work? What materials are used to make it? Why? What different 'parts' does it have? What are the features of the product?</p>	<p>LO: To investigate and analyse existing products</p> <ul style="list-style-type: none"> *Investigate similar products/ images to collect ideas. *Know the purpose and audience for a product. *Record key features and materials using annotated diagrams. *Know the processes used to make the product. <p><u>Key Questions:</u> What is the product? Who is the audience for it? What does it do? What is its purpose? How does it work? What materials are used to make it? Why? What different 'parts' does it have? What are the features of the product? Which do you like? Why? Is the product fit for purpose? What skills have been used to make the product?</p>	<p>LO: To investigate, disassemble and analyse existing products</p> <ul style="list-style-type: none"> *Investigate similar products/ images to collect ideas. *Know the purpose and audience for a product. *Record key features and materials using annotated diagrams. *Know the processes used to make the product. <p><u>Key Questions:</u> What is the product? Who is the audience for it? What does it do? What is its purpose? How does it work? What materials are used to make it? Why? What different 'parts' does it have? What are the features of the product? Which do you like? Why? Is the product fit for purpose? What skills have been used to make the product?</p>



Progression of Learning Objectives and Skills in Design and Technology at St. John's Primary School

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing	<p>LO: To design a.....</p> <ul style="list-style-type: none"> *Explain what they are making and which materials they are using. *Name the tools they are using. *Describe what they need to do. *Select materials from a limited range that will meet the design criteria. *Select pictures to help develop ideas. <p><u>Key Questions:</u> What are you designing? Who is it for? What materials will you use? What will it look like? How will you make it?</p>	<p>LO: To generate designs for a specific purpose</p> <ul style="list-style-type: none"> *Select and name tools needed. *Select materials. *Select appropriate techniques explaining: First... Next... Last... *Use pictures and words to convey what they want to design and make. *Describe models and drawings of ideas and intentions. *Use drawings to record ideas as they are developed. *Add notes to drawings to help explanations. <p>+ Year 1 skills.</p> <p><u>Key Questions:</u> What are you designing? Who is it for? What is its purpose? What materials will you use? Why? What will it look like? How will you make it?</p>	<p>LO: To generate realistic designs for a specific purpose</p> <ul style="list-style-type: none"> *Think ahead about the order of their work and decide upon tools and materials. *Plan a sequence of actions to make a product. *Record the plan by drawing (labelled sketches) or writing. *Draw/sketch products to help analyse how they are made. <p><u>Key Questions:</u> What are you designing? Who is your intended audience? What is its purpose? What features will you include in your product? Why? What materials will you use? Why? What tool will you need? What will it look like? How will you make it?</p>	<p>LO: To generate realistic designs (based on the needs of the user)</p> <ul style="list-style-type: none"> *Draw/sketch products to help understand how they are made. *Develop more than one design or adaptation of an initial design. *Propose realistic suggestions as to how they can achieve their designs. <p>+ Year 3 skills.</p> <p><u>Key Questions:</u> What are you designing? Who is your intended audience? What is its purpose? What features will you include in your product? Why? What materials will you use? Why? What tool will you need? What will it look like? How will you make it? What will you need to think about while you are making your product?</p>	<p>LO: To generate ideas for a specific purpose (based on product research)</p> <ul style="list-style-type: none"> *Sketch and model alternative ideas. *Record ideas using annotated diagrams. *Make prototypes. *Use found information to inform decisions. *Plan realistic suggestions for sequence of making. <p><u>Key Questions:</u> What are you designing? Who is your intended audience? Is it suitable for the audience? What is its purpose? Is it fit for purpose? How? What features will you include in your product? Why? What materials will you use? Why? What tool will you need? What will it look like? How will it work? What will you need to think about while you are making your product? WHICH OF YOUR DESIGNS WILL YOU CHOOSE? WHY?</p>	<p>LO: To generate innovative ideas (based on product research)</p> <ul style="list-style-type: none"> *Combine modelling and drawing to refine ideas. *Plan a sequence of work using a storyboard. *Use a computer to model ideas. *Draw plans which can be read/followed by someone else. *Give a report using correct technical vocabulary. <p>+ Year 5 skills.</p> <p><u>Key Questions:</u> What are you designing? Is it suitable for the intended audience? What is its purpose? Is it fit for purpose? How? What features will you include in your product? Why? What materials will you use? Why? What tool will you need? What will it look like? How will it work? What will you need to think about while you are making your product? WHICH OF YOUR DESIGNS WILL YOU CHOOSE? WHY?</p>



Progression of Learning Objectives and Skills in Design and Technology at St. John's Primary School

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Practical skills Mechanisms	*Fold, tear and cut paper and card. *Roll paper to create tubes. *Cut along lines, straight and curved. *Use a hole punch. *Create stable structures	*Fold, tear and cut paper and card. *Roll paper to create tubes. *Cut along lines, straight and curved. *Investigate strengthening sheet materials. *Investigate joining temporary, fixed and moving materials. *Mark out materials to be cut using a template.	*Cut materials accurately and safely. *Select appropriate tools. *Investigate and select appropriate joining techniques. *Measure accurately. *Create stable structures. *Investigate strengthening structures	*Measure and mark out materials for cutting to the nearest mm. *Cut accurately and safely along a marked line. *Cut slots/use nets/cut outs. *Join and combine materials with temporary, fixed or moving joints. *Choose suitable techniques and materials to construct structures	*Cut materials with precision. *Refine the finish of the product with appropriate tools (sanding etc) *Join and combine materials. *Use a glue gun safely *Use a craft knife safely. *Use a range of practical skills to create a structure (cutting, drilling, screwing, nailing, gluing, sanding)	*Understand the qualities of materials. *Choose appropriate tools to cut and shape materials. *Join and combine materials with temporary, fixed or moving joints. *Use a glue gun safely. *Use a craft knife safely. *Develop a range of practical skills to create a structure (cutting, drilling, screwing, nailing, gluing, sanding)
	*Create hinges. *Use simple pop ups/winders/slides/levers. *Insert paper fasteners for card linkages.	*Use a range of materials to create models with wheels and axels e.g. glue, tape, dowel and cotton reels. *Attach wheels to a chassis using an axle.	*Use knowledge of forces to choose appropriate mechanisms (levers and linkages, sliders winders, pulleys)	*Use knowledge of forces to choose appropriate mechanisms (pneumatics)	*Use knowledge of forces and movement (cams) *Use electric circuits	*Choose most effective mechanisms
Construction						



	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Practical skills Food and nutrition Textiles	<ul style="list-style-type: none"> *Colour fabrics using a range of techniques e.g. fabric paints, printing and painting. *Join fabrics with glue. *Cut out shapes which have been created by drawing around a template onto the fabric. *Join fabrics by using a running stitch, staples, over sewing and tape. *Decorate fabrics with buttons, beads, sequins, braids and ribbons. 	<ul style="list-style-type: none"> *Join fabrics using running stitch, over sewing and back stitch. *Understand and use a seam allowance. *Explore fastenings and recreate some e.g. sew on buttons and make loops. *Create simple patterns and prototype a product using j cloths. *Use appropriate decoration techniques (glue/ appliqué or simple stitches). 	<ul style="list-style-type: none"> *Create 3D products using pattern pieces and seam allowance. *Understand pattern layout. *Join fabrics using over sewing, back stitch and blanket stitch. *Decorate textiles appropriately often before joining components. *Pin and tack fabric pieces together. *Combine fabrics to create more useful properties. *Make quality products
	<ul style="list-style-type: none"> *Develop a food vocabulary using taste, smell, texture and touch. *Group familiar food products e.g. fruit and vegetables. *Cut and peel a range of ingredients. *Work safely and hygienically. *Peel, grate and chop a range of ingredients 	<ul style="list-style-type: none"> *Follow instructions. *Make healthy eating choices from an understanding of a balanced diet. *Join and combine a range of ingredients. *Prepare ingredients hygienically *Measure accurately *Analyse the taste, texture and smell of a range of food. 	<ul style="list-style-type: none"> *Prepare food products taking into account the properties of ingredients and sensory characteristics. *Select and prepare foods for a particular purpose. *Taste a range of ingredients/food items to develop a sensory food vocabulary for use when designing. *Weigh and measure using scales. *Cut and shape ingredients using appropriate tools and equipment. *Join and combine food ingredients appropriately. *Decorate appropriately.



Progression of Learning Objectives and Skills in Design and Technology at St. John's Primary School

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Making	<p>LO: To create my product</p> <p>*Follow instructions to make product *Discuss work as it progresses *Make simple changes (if needed) and explain why</p>	<p>LO: To select appropriate tools and materials</p> <p>*Follow the plan *Work safely with scissors and other materials/tools *Keep checking that everything is working *Make changes if needed *Explain changes</p>	<p>LO: To select appropriate tools and materials to create my product</p> <p>*Follow the plan. *Think ahead about the order of their work and decide upon tools and materials. *Work safely with tools. *Constantly evaluate / alter plans to overcome problems</p>	<p>LO: To create my product using the most appropriate tools and materials</p> <p>*Think ahead about the order of their work and decide upon tools and materials. *Follow the plan *Work safely with tools. *Constantly evaluate / alter plans to overcome problems *Explain any alterations</p>	<p>LO: To select appropriate tools and materials to create my product</p> <p>*Use design criteria to inform decisions about ways to proceed. *Justify decisions about materials and methods of construction. *Constantly evaluate / alter plans to overcome problems *Explain any alterations</p>	<p>LO: To select the most appropriate tools and materials to create effect products</p> <p>*Use design criteria to inform decisions about ways to proceed. *Justify decisions about materials and methods of construction. *Constantly evaluate / alter plans to overcome problems *Explain and justify any alterations</p>



Progression of Learning Objectives and Skills in Design and Technology at St. John's Primary School

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluating	<p>LO: To evaluate my product</p> <p>*Say what they like and do not like about items they have made and attempt to say why. *Talk about their designs as they develop and identify good and bad points. *Talk about changes made during the making process.</p> <p><u>Key Questions:</u> What went well? Did you make any changes and why? What didn't work very well? What would you change?</p>	<p>LO: To evaluate and test my finished product</p> <p>*Say what they like and do not like about items they have made and attempt to say why. *Talk about their designs as they develop and identify good and bad points. *Talk about changes made during the making process. *Discuss how closely their finished products meet their design criteria.</p> <p><u>Key Questions:</u> What went well? Did you make any changes and why? What didn't work very well? What would you change? Does your finished product do what you wanted it to? Does it match the design criteria?</p>	<p>LO: To reflect on my designs and evaluate my product</p> <p>*Identify the strengths and weaknesses of their design ideas. *Consider and explain how the finished product could be improved. *Discuss how well the finished product meets the design criteria and how well it meets the needs of the user.</p> <p><u>Key Questions:</u> What went well? Did you make any changes and why? What didn't work very well? Why? How did you overcome any problems? What would you change if you made it again? Does your finished product do what you wanted it to? Does it match the design criteria?</p>	<p>LO: To test my product and evaluate it against the design criteria</p> <p>*Identify the strengths and weaknesses of their design ideas. *Decide which design ideas to develop. *Consider and explain how the finished product could be improved. *Discuss how well the finished product meets the design criteria and how well it meets the needs of the user. *Test the finished product against the design criteria</p> <p><u>Key Questions:</u> What went well? Did you make any changes and why? What didn't work very well? Why? How did you overcome any problems? What would you change if you made it again? Does your finished product do what you wanted it to? Does it match the design criteria? How would you plan your work differently/better if you did it again?</p>	<p>LO: To evaluate my product against the design criteria</p> <p>*Use design criteria to inform decisions about ways to proceed. *Justify decisions about materials and methods of construction. *Reflect on/ test their work using design criteria stating how well the design fits the needs of the user. *Identify what does and does not work in a product. *Make suggestions as to how their design could be improved.</p> <p><u>Key Questions:</u> What went well? Did you make any changes and why? What didn't work very well? Why? How did you overcome any problems? What would you change if you made it again? Does your finished product do what you wanted it to? Does it match the design criteria? How would you plan your work differently/better if you did it again? What have you learnt from making the product?</p>	<p>LO: To test my product and evaluate it effectiveness</p> <p>*Use design criteria to inform decisions about ways to proceed. *Justify decisions about materials and methods of construction. *Reflect on/ test their work using design criteria stating how well the design fits the needs of the user. *Identify what does and does not work in a product. *Make suggestions as to how their design could be improved.</p> <p><u>Key Questions:</u> What went well/ didn't work very well? Why? How did you overcome any problems? What would you change if you made it again? Does your finished product do what you wanted it to? Does it match the design criteria? How would you plan your work differently/better if you did it again? What have you learnt from making the product? Where else can you use new skills?</p>

Progression of Learning Objectives and Skills in Design and Technology at St. John's Primary School

