

LPDS National Curriculum Assessment Materials for Foundation Stage - Design Technology





These materials have been written by Lancashire Professional Development Service (LPDS) Teaching and Learning Consultants for the foundation subjects in conjunction with the aims and statutory requirements set out in the National Curriculum 2014.

The 'end of year expectations' for each subject have been written as statements for each year group and are presented in a grid. This will enable teachers to reflect on the expectations for a specific year group, whilst being aware of the expectations for the year groups below and above.

The titles at the bottom of the grids have been taken from the National Curriculum 2014 requirements for KS1 and KS2. Communication has been included in some subject grids as the National Curriculum states '*Teachers should develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject*'. (NC2014 p10)

Teachers can use these statements to assess progress and to make an accurate judgement on a child's attainment at the end of each year. Using the end of year expectation statements to make an overall judgement about a child's achievement in each of the foundation subjects will support class teachers, subject leaders and senior managers to track a child's progress through a key stage in relation to the programmes of study requirements set out in National Curriculum 2014.

When making a judgement as to whether a child has achieved the year group statements in each of the foundation subjects, teachers should build their knowledge of what a child can do over the course of the year, and then consider whether a child can apply and understand the skills and processes, knowledge, understanding specified in the relevant programme of study, consistently and independently in different contexts.

The statements within each year group are not hierarchical, and should not be used as a checklist. Evidence from a range of contexts (observations, pupil work, discussion, collaboration, planning, etc.) should be used to formulate a 'best fit' judgement as to whether a child has achieved the year group expectations outlined across the columns in the grid.

The end of year group expectations are cumulative – what is learnt in one year group should continue to be used in the next.

The assessment grids should be used in conjunction with the programmes of study specified in the National Curriculum 2014 for each foundation subject and identified within a school's own curriculum. Teachers need to reflect on the key learning for each foundation subject as outlined in the curriculum to ensure effective teaching and assessment is in place across the primary phase.

Design and Technology

End of Year Expectations



<p>Year 6</p>	<ul style="list-style-type: none"> ▶ Plan the sequence of work. ▶ Devise step by step plans which can be read / followed by someone else. ▶ Use exploded diagrams and cross-sectional diagrams to communicate ideas. 	<ul style="list-style-type: none"> ▶ Make prototypes. ▶ Use researched information to inform decisions. ▶ Produce detailed lists of ingredients / components / materials and tools. ▶ Refine their product – review and rework / improve. 	<ul style="list-style-type: none"> ▶ Identify the strengths and weaknesses of their design ideas. ▶ Report using correct technical vocabulary. ▶ Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user. ▶ Understand how key people have influenced design in a variety of contexts. ▶ Investigate key events and individuals in design and technology. 	<ul style="list-style-type: none"> ▶ Use the correct vocabulary appropriate to the project. ▶ Join materials using appropriate methods. ▶ Create 3--D textile products using pattern pieces. ▶ Understand pattern layout with textiles. ▶ Cut strip wood, dowel, square section wood accurately to 1mm. ▶ Build frameworks to support mechanisms. ▶ Stiffen and reinforce complex structures. ▶ Use mechanical systems such as cams, pulleys and gears. ▶ Use electrical systems such as motors and switches. ▶ Program, monitor and control using ICT. 	<ul style="list-style-type: none"> ▶ Understand and apply the principles of a healthy and varied diet. ▶ Choose ingredients to support healthy eating choices when designing their food products. ▶ Prepare and cook a variety of mostly savoury dishes using a range of cooking techniques.
<p>Year 5</p>	<ul style="list-style-type: none"> ▶ Record ideas using annotated diagrams. ▶ Use models, kits and drawings to help formulate design ideas. ▶ Sketch and model alternative ideas. ▶ Decide which design idea to develop. 	<ul style="list-style-type: none"> ▶ Develop one idea in depth. ▶ Select from and use a wide range of tools. ▶ Cut accurately and safely to a marked line. ▶ Select from and use a wide range of materials. 	<ul style="list-style-type: none"> ▶ Research and evaluate existing products. ▶ Consider user and purpose. ▶ Consider and explain how the finished product could be improved related to design criteria. ▶ Investigate key events and individuals in design and technology. 	<ul style="list-style-type: none"> ▶ Use an increasingly appropriate technical vocabulary for tools materials and their properties. ▶ Understand seam allowance. ▶ Prototype a product. ▶ Sew on buttons and make loops. ▶ Strengthen frames with diagonal struts. ▶ Measure and mark square section, strip and dowel accurately to 1cm. ▶ Incorporate a circuit into a model. ▶ Use electrical systems such as switches bulbs and buzzers. ▶ Use ICT to control products. ▶ Use linkages to make movement larger or more varied. 	<ul style="list-style-type: none"> ▶ Join and combine a widening range of ingredients. ▶ Select and prepare foods for a particular purpose. ▶ Know where and how ingredients are grown and processed.
<p>Year 4</p>	<ul style="list-style-type: none"> ▶ Record the plan by drawing using annotated sketches. ▶ Use prototypes to develop and share ideas. ▶ Consider aesthetic qualities of materials chosen. ▶ Use CAD where appropriate. 	<ul style="list-style-type: none"> ▶ Prepare pattern pieces as templates for their design. ▶ Select from techniques for different parts of the process. 	<ul style="list-style-type: none"> ▶ Draw / sketch existing products in order to analyse and understand how products are made. ▶ Identify the strengths and weaknesses of their design ideas in relation to purpose / user. ▶ Consider and explain how the finished product could be improved. ▶ Investigate key events and individuals in design and technology. 	<ul style="list-style-type: none"> ▶ Make healthy eating choices – use the <i>Eatwell plate</i>. ▶ Understand seasonality. ▶ Know where and how ingredients are reared and caught. ▶ Prepare and cook using different cooking techniques. 	

Design and Technology

End of Year Expectations



	Design	Make	Evaluate	Technical Knowledge (Select as appropriate to the focus of the design and technology focuses in the year group)	Cooking and Nutrition
Year 3	<ul style="list-style-type: none"> ▶ Develop more than one design or adaptation of an initial design. ▶ Plan a sequence of actions to make a product. ▶ Think ahead about the order of their work and decide upon tools and materials. ▶ Propose realistic suggestions as to how they can achieve their design ideas. 	<ul style="list-style-type: none"> ▶ Select from a range of tools for cutting, shaping, joining and finishing. ▶ Use tools with accuracy. ▶ Select from materials according to their functional properties. ▶ Use appropriate finishing techniques. 	<ul style="list-style-type: none"> ▶ Investigate similar products to the one to be made to give starting points for a design. ▶ Research needs of user. ▶ Decide which design idea to develop. ▶ Consider and explain how the finished product could be improved. ▶ Discuss how well the finished product meets the user's design criteria. ▶ Investigate key events and individuals in design and technology. 	<ul style="list-style-type: none"> ▶ Use an increasingly appropriate technical vocabulary for tools materials and their properties. ▶ Understand seam allowance. ▶ Prototype a product. ▶ Sew on buttons and make loops. ▶ Strengthen frames with diagonal struts. ▶ Measure and mark square section, strip and dowel accurately to 1cm. ▶ Incorporate a circuit into a model. ▶ Use electrical systems such as switches bulbs and buzzers. ▶ Use ICT to control products. ▶ Use linkages to make movement larger or more varied. 	<ul style="list-style-type: none"> ▶ Follow instructions / recipes. ▶ Join and combine a range of ingredients. ▶ Begin to understand the food groups on the <i>Eatwell Plate</i>.
Year 2	<ul style="list-style-type: none"> ▶ Propose more than one idea for their product. ▶ Use ICT to communicate ideas. ▶ Use drawings to record ideas as they are developed. ▶ Add notes to drawings to help explanations. 	<ul style="list-style-type: none"> ▶ Discuss their work as it progresses. ▶ Select and name the tools needed to work the materials. ▶ Explain which materials they are using and why. 	<ul style="list-style-type: none"> ▶ Decide how existing products do / do not achieve their purpose. ▶ Discuss how closely their finished product meets their own design criteria. 	<ul style="list-style-type: none"> ▶ Start to use technical vocabulary. ▶ Cut out shapes which have been created by drawing round a template. ▶ Join materials in a variety of ways. ▶ Decorate using a variety of techniques. ▶ Know some ways of making structures stronger. ▶ Show how to stiffen some materials. ▶ Know how to make a simple structure more stable. ▶ Attach wheels to a chassis using an axle. ▶ Know some different ways of making things move in a 2-D plane. 	<ul style="list-style-type: none"> ▶ Cut, peel, grate, chop a range of ingredients. ▶ Work safely and hygienically. ▶ Know about the <i>Eatwell Plate</i>. ▶ Understand where food comes from.
Year 1	<ul style="list-style-type: none"> ▶ Use pictures and words to convey what they want to design / make. ▶ Explore ideas by rearranging materials. ▶ Select pictures to help develop ideas. ▶ Use mock-ups e.g. recycled material trial models to try out their ideas. 	<ul style="list-style-type: none"> ▶ Select materials from a limited range. ▶ Explain what they are making. ▶ Name the tools they are using. 	<ul style="list-style-type: none"> ▶ Explore existing products and investigate how they have been made (including teacher-made examples). ▶ Talk about their design as they develop and identify good and bad points. ▶ Say what they like and do not like about items they have made and attempt to say why. 		<ul style="list-style-type: none"> ▶ Group familiar food products e.g. fruit and vegetables. ▶ Cut and chop a range of ingredients. ▶ Work safely and hygienically. ▶ Know about the need for a variety of foods in a diet.