

USE OF MATERIALS	
Y1	<ul style="list-style-type: none"> Make a structure/model using different materials Is their work tidy? Make their model stronger if it needs to be
Y2	<ul style="list-style-type: none"> Measure materials to use in a model or structure Join material in different ways Use joining, folding or rolling to make it stronger
Y3	<p>Stiff and flexible sheet materials</p> <ul style="list-style-type: none"> Use the most appropriate materials Work accurately to make cuts and holes Join materials <p>Mouldable materials</p> <ul style="list-style-type: none"> Select the most appropriate material Use a range of techniques to shape and mould Use finishing techniques
Y4	<p>Stiff and flexible sheet materials</p> <ul style="list-style-type: none"> Measure carefully so as to make sure they have not made mistakes Attempt to make their product strong <p>Mouldable materials</p> <ul style="list-style-type: none"> Use a range of advanced techniques to shape and mould Use finishing techniques, showing an awareness of audience
Y5	<p>Stiff and flexible sheet materials</p> <ul style="list-style-type: none"> Measurements are accurate enough to ensure that everything is precise Ensure that their product is strong and fit for purpose <p>Mouldable materials</p> <ul style="list-style-type: none"> Refine and further improve their product using mouldable materials
Y6	<p>Stiff and flexible sheet materials</p> <ul style="list-style-type: none"> Justify why they selected specific materials Ensure that their work is precise and accurate Hide joints so as to improve the look of their product <p>Mouldable materials</p> <ul style="list-style-type: none"> Justify why the chosen material was the best for the task Justify design in relation to the audience

WORKING WITH TOOLS, EQUIPMENT AND MATERIALS AND COMPONENTS TO MAKE QUALITY PRODUCTS	
Y1	<ul style="list-style-type: none"> Explain what they are making Explain which tools they are using
Y2	<ul style="list-style-type: none"> Join things (materials / components) together in different ways
Y3	<ul style="list-style-type: none"> Use equipment and tools accurately
Y4	<ul style="list-style-type: none"> Tell if finished product is going to be good quality Conscious of the need to produce something that will be liked by others Show a good level of expertise when using a range of tools and equipment Work at their product even though their original idea might not have worked
Y5	<ul style="list-style-type: none"> Explain why finished product is going to be of good quality Explain how their product will appeal to the audience Use a range of tools and equipment expertly Persevere through different stages of the making process
Y6	<ul style="list-style-type: none"> Use tools and materials precisely Change the way they are working if needed



DT focused projects in Cornerstones: DT is covered in most of the Cornerstones projects but some of the projects have a really strong focus on DT learning. Look out for the following projects which have DT as one of their primary subjects:

Year 1 and 2:

Rio de Vida (Covers cooking and nutrition, designing, making and evaluating skills).

Towers, Tunnels and Turrets (Covers designing, making, evaluating and technical knowledge skills).

Year 3 and 4:

Urban Pioneers (Covers designing, making, evaluating and technical knowledge skills).

Road Trip USA (Covers cooking and nutrition, designing, making, evaluating and technical knowledge skills).

Year 5 and 6:

Hola Mexico! (Covers cooking and nutrition, designing, making, evaluating and technical knowledge).

Scream Machine (Covers cooking and nutrition, designing, making, evaluating and technical knowledge).



Finding out more....

Some good websites for developing DT skills and knowledge include:

- * <http://www.teachingideas.co.uk/dt/contents.htm> (Lots of DT ideas for children to do at home/school)
- * <http://www.activityvillage.co.uk/> (Free greeting cards, colouring and craft ideas which are free to print)
- * <http://www.primaryresources.co.uk/dandt/dandt.htm> (Lots of DT ideas for children to do at home/school)
- * <http://www.foodafactoflife.org.uk/> (Cooking and food DT ideas)
- * <http://www.bbc.co.uk/education/subjects/zb9d7ty>



Our Vision: To make DT outstanding across the school.

Subject Leader: Mrs Ball

The National Curriculum Purpose of Study for DT:

“Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of context, considering their own and others’ needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well being of the nation.”

DT at Milton Court Primary Academy:

Design technology at Milton Court Primary Academy practically develops children’s ability to operate creatively, effectively and confidently through designing and making. Design and Technology encourages children to learn to think and solve problems both as individuals and as members of a team. At Milton Court Primary Academy DT is taught from the Cornerstones Curriculum and work is planned to ensure the children meet the end of end expectations. Children are taught to look for opportunities and to respond to them by developing a range of ideas and making a range of products. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators. At Milton Court Academy we develop children’s designing and making skills and teach children the knowledge and understanding, within each child’s ability, that will be required to complete the making of their product. We teach children the safe and effective use of a range of tools, materials and components and develop children’s understanding of the ways in which people have designed products in the past and present to meet their needs.

What we are good at:

- * We are currently implementing the new Cornerstones DT Curriculum across the whole school.
- * A range of DT skills including cooking, designing , making, evaluating and technical DT knowledge is taking place across the school.
- * All staff are excellent at sharing subject knowledge and good practice during staff meetings and training sessions.

Things we are working on:

- * Investing money in buying a section of good quality DT resources to enhance DT teaching across the school.
- * Monitoring DT lessons across the school to ensure DT teaching is outstanding.
- * Updating the DT school policy to ensure it reflects current practice throughout the school.

Key skills in DT

We teach a wide curriculum in DT through our termly projects. As a result, we cover the Early Years and National Curriculum requirements and go further to extend children's knowledge and understanding. Underpinning our curriculum delivery throughout years 1-6 are key skills that we ensure are taught, embedded and applied in each year group. Our aim is that every child has a firm understanding of these key skills within their year group expectations as a minimum.

In the Early Years DT is looked at through Expressive Arts and Design within the Early Years Foundation Stage Curriculum.

In DT in KS1 and KS2 we look at developing understanding in 8 key overall areas: Construction, cooking and nutrition, developing, planning and communicating ideas, evaluating processes and products, mechanisms, textiles, use of materials, working with tools, equipment and materials and components to make quality products.

Key skill expectations for each year group are shown below.

DT in the Early Years:

There are many opportunities for carrying out D&T-related activities in all areas of learning in the Early Years Foundation Stage (EYFS). Design Technology is specifically identified in the EYFS as a strand within Expressive Arts and Design. By the end of EYFS most children should be able to

- Construct with a purpose in mind, using a variety of resources.
- Use simple tools and techniques competently and appropriately.
- Understand media can be combined to create new effects.
- Select the tools and techniques they need to shape, assemble and join materials they are using
- Manipulates materials to achieve a planned effect.
- Select appropriate resources and adapts work where necessary.

CONSTRUCTION	
Y1	<ul style="list-style-type: none"> • Think of some ideas of own • Explain what want to do • Use pictures and words to plan
Y2	<ul style="list-style-type: none"> • Think of ideas and plan what to do next • Choose the best tools and materials. Give a reason for why those chosen are best • Describe design by using pictures, diagrams, models and words
Y3	<ul style="list-style-type: none"> • Show that their design meets a range of requirements • Put together a step-by-step plan which shows the order and also what equipment and tools are needed • Describe own design using an accurately labelled sketch and words • Consider how realistic own plan is
Y4	<ul style="list-style-type: none"> • Think how will check if their own design is successful • Begin to explain how the original design can be improved • Evaluate their product thinking of both appearance and the way it works • Take time to consider how the idea could have been made better
Y5	<ul style="list-style-type: none"> • Come up with a range of ideas after the information has been collected • Take a user's view into account when designing • Produce a detailed step-by-step plan • Suggest some alternative plans and say what the good points and drawbacks are about each
Y6	<ul style="list-style-type: none"> • Use a range of information to inform design • Use market research to inform plans • Work within constraints • Follow and refine the plan if necessary • Justify their plan to someone else • Consider culture and society in designs

COOKING AND NUTRITION	
Y1	<ul style="list-style-type: none"> • Cut food safely • Describe the texture of foods • Wash hands and make sure that surfaces are clean • Think of interesting ways of decorating food that have made eg cakes
Y2	<ul style="list-style-type: none"> • Describe the properties of the ingredients using • Explain what it means to be hygienic • Be hygienic in the kitchen
Y3	<ul style="list-style-type: none"> • Choose the right ingredients for a product • Use equipment safely • Make sure that the product looks attractive • Describe how the combined ingredients come together • Set out to grow plants such as cress and herbs from seed with the intention of using them for their food product
Y4	<ul style="list-style-type: none"> • Know what to do to be hygienic and safe • Think what can do to present the product in an interesting way
Y5	<ul style="list-style-type: none"> • Describe what to do to be hygienic and safe • Present a product well
Y6	<ul style="list-style-type: none"> • Explain how the product could be stored with reasons • Set out to grow own products with a view to making a salad, taking account of time required to grow different foods



DEVELOPING, PLANNING AND COMMUNICATING IDEAS	
Y1	<ul style="list-style-type: none"> • Think of some ideas of own • Explain what want to do • Use pictures and words to plan
Y2	<ul style="list-style-type: none"> • Think of ideas and plan what to do next • Choose the best tools and materials. Give a reason for why those chosen are best • Describe design by using pictures, diagrams, models and words
Y3	<ul style="list-style-type: none"> • Show that their design meets a range of requirements • Put together a step-by-step plan which shows the order and also what equipment and tools are needed • Describe own design using an accurately labelled sketch and words • Consider how realistic own plan is
Y4	<ul style="list-style-type: none"> • Think how will check if their own design is successful • Begin to explain how the original design can be improved • Evaluate their product thinking of both appearance and the way it works • Take time to consider how the idea could have been made better
Y5	<ul style="list-style-type: none"> • Come up with a range of ideas after the information has been collected • Take a user's view into account when designing • Produce a detailed step-by-step plan • Suggest some alternative plans and say what the good points and drawbacks are about each
Y6	<ul style="list-style-type: none"> • Use a range of information to inform design • Use market research to inform plans • Work within constraints • Follow and refine the plan if necessary • Justify their plan to someone else • Consider culture and society in designs

MECHANISMS	
Y1	<ul style="list-style-type: none"> • Make a product which moves • Cut materials using scissors • Describe the materials using different words • Say why chosen moving parts
Y2	<ul style="list-style-type: none"> • Join materials together as part of a moving product • Add some kind of design to product
Y3	<ul style="list-style-type: none"> • Select the most appropriate tools and techniques to use for a given task • Make a product which uses both electrical and mechanical components • Use a simple circuit • Use a number of components
Y4	<ul style="list-style-type: none"> • Add things to circuits • Alter product after checking it • Be confident about trying out new and different ideas
Y5	<ul style="list-style-type: none"> • Incorporate a switch into product • Refine product after testing it • Incorporate hydraulics and pneumatics
Y6	<ul style="list-style-type: none"> • Use different kinds of circuits in product • Think of ways in which adding a circuit would improve product

EVALUATING PROCESSES AND PRODUCTS	
Y1	<ul style="list-style-type: none"> • Describe how something works • Talk about own work and things that other people have done
Y2	<ul style="list-style-type: none"> • Explain what went well with own work • Explain what would improve if did work again
Y3	<ul style="list-style-type: none"> • Explain what changed which made the design even better
Y4	<ul style="list-style-type: none"> • Think about how to check if design is successful • Begin to explain how the original design could be improved • Evaluate own product, thinking of both appearance and the way it works • Take time to consider how could have made own idea even better
Y5	<ul style="list-style-type: none"> • Keep checking that the design is the best it could be • Check whether anything could be improved • Evaluate appearance and function against the original criteria
Y6	<ul style="list-style-type: none"> • Test and evaluate own final product • Check if product is fit for purpose • Identify what could be done to improve product • Consider whether different resources would have improved the product • Consider whether need more or different information to make the product even better • Check if the product meets all design criteria • Consider the use of the product when selecting materials

TEXTILES	
Y1	<ul style="list-style-type: none"> • Describe how different textiles feel • Make a product from textiles by gluing
Y2	<ul style="list-style-type: none"> • Measure textile • Join textiles together to make something • Cut textiles • Explain why chosen a certain textile
Y3	<ul style="list-style-type: none"> • Join textiles of different types in different ways • Choose textiles both for their appearance and also qualities
Y4	<ul style="list-style-type: none"> • Think what the user would want when choosing textiles • Think about how to make product strong • Devise a template • Explain how to join things in a different way
Y5	<ul style="list-style-type: none"> • Think what the user would want when choosing textiles • Make a product attractive and strong • Make up a prototype first • Use a range of joining techniques
Y6	<ul style="list-style-type: none"> • Consider how the product could be sold • Give consideration to what would improve their product even more

