



BIS DT Curriculum

Term & Topic	Learning questions	Vocabulary	Knowledge	Skills	Enrichment	Global Citizen Links
Nursery						
Autumn 2 Nursery rhymes	Explore different textures	Soft Hard Rough Squishy Firm Bendy	<ul style="list-style-type: none"> Knows how to use tools 	<ul style="list-style-type: none"> be able to use tools be able to use both hands at the same time 		Personal -Social skills and Kindness - Learn to use resources carefully
Autumn 2 Nursery rhymes	WALT: Join large flat surfaces together	Small Large Big Stick Glue Flat Fix	<ul style="list-style-type: none"> know how to use tools safely so I don't hurt myself or my friends 	<ul style="list-style-type: none"> be able to use tools be able to use both hands at the same time be able to stick paper to a surface be able to place materials on top of each other 		
Spring 1 Dinosaurs	Explore different textures Join different materials	Shiny Dull Stretchy Crumbly Slippery Furry Spongy Stiff Smooth Bumpy Lumpy Rough Scratchy Prickly	<ul style="list-style-type: none"> know how to use tools safely so I don't hurt myself or my friends Know how to use tools to join materials safely 	<ul style="list-style-type: none"> be able to use tools be able to use both hands at the same time be able to stick paper to a surface be able to place materials on top of each other be able to join materials together 		

Summer 1 Farm	WALT: Combine different materials for a purpose	Join Stick Glue	<ul style="list-style-type: none"> know how to use tools safely so I don't hurt myself or my friends Know how to use tools to join materials safely 	<ul style="list-style-type: none"> be able to use tools be able to use both hands at the same time be able to stick paper to a surface be able to place materials on top of each other be able to join materials together 		
Reception						
Spring 1 Space	WALT: Join using string to tie Join using tabs and L-Brace	Join Tie Tab L-Brace Stick Slot Fasten Corner Hold Fix	<ul style="list-style-type: none"> know how to use tools safely so I don't hurt myself or my friends Know how to use tools to join materials safely Know that complex tools can be used safely to attach and join materials 	<ul style="list-style-type: none"> be able to use different tools be able to Safely use and explore complex tools to attach and join be able to join different materials together be able to use both hands at the same time 		<p style="text-align: center;"><u>Personal</u></p> <ul style="list-style-type: none"> -Social skills and Kindness - Sharing materials - Listening to others' ideas with respect -Learn to use resources carefully
Spring 2 Traditional Tales	WALT: Combine different types of media for an effect	Cut Stick Draw Paint Mix Tear Fold Press Layer	<ul style="list-style-type: none"> know we make things for a reason or to help someone know how to use tools to join materials safely Know that complex tools can be used safely to attach and join materials 	<ul style="list-style-type: none"> Be able to generate a design Be able to explore ways of constructing parts of a design Be able to select materials 		

Summer 2 Super Heros	Walt: Create using a variety of media and materials	Smooth Rough Shiny Soft Hard Thick Thin Bright Dark Bumpy flat Sparkly Dull	<ul style="list-style-type: none"> • know we make things for a reason or to help someone • know how to use tools to join materials safely • know that complex tools can be used safely to attach and join materials 	<ul style="list-style-type: none"> • Be able to generate a design • Be able to explore ways of constructing parts of a design • Be able to select materials 		
Year 1						
Autumn Brainwave	<ol style="list-style-type: none"> 1. What materials are suitable to make a hot balloon? 2. Design hot air balloon against criteria 3. How can I make and test my hot air balloon? 4. How to evaluate and improve our hot air balloon? 	Design Plan Test Evaluate Light Strong Big / Small Round Flat Smooth Colourful Hot air balloon Float Fly Lift Air Heat Basket Balloon String	<ul style="list-style-type: none"> • Know that design is driven by a purpose • Know risks to self and others when using tools <p>(1.01/1.09)</p>	<ul style="list-style-type: none"> • Be able to generate a design • Be able to define a main need of a context/situation • Be able to articulate how their design meets the identified need • Be able to design that identified need. • Be able to explore ways of constructing parts of a design • Be able to explore ways of constructing parts of a design <p>(1.02/1.03/ 1.04/1.05/1.06)</p>		<p style="text-align: center;"><u>Global</u></p> <p>Review clips of a hot air ballons flying from around the world.</p>

<p>Spring 2 Time Travellers</p>	<ol style="list-style-type: none"> How can I design my house using a brief? How can I assemble my structure? How do I evaluate my structure? 	<p>Design Plan Test Evaluate Structure Stable Materials Tools Cut Fold Glue Edge Roof Wall Door Card Paper Straw</p>	<ul style="list-style-type: none"> Know that design is driven by a purpose Know risks to self and others when using tools <p>(1.01/1.09)</p>	<ul style="list-style-type: none"> Be able to generate a design Be able to explore ways of constructing parts of a design Be able to produce a final design proposal Be able to list materials and tools needed for production Be able to compare their design and product explaining any differences Understand that the design of products is impacted by material availability <p>(1.03/1.05/1.06/1.07/1.10/1.11)</p>	<p>Visit to monument/ St Pauls</p> <p>Making cardboard houses and setting alight/ putting them out with buckets.</p> <p>Go for a local walk in Belvedere to look at different types of homes and compare to houses in 1666 to block of houses, flats and trailers.</p>	<p><u>Global</u></p> <p>Research homes around the world using books.</p>
<p>Summer 2 Our Earth Our Home</p> <p>(Boat- linked to TPA passport)</p>	<ol style="list-style-type: none"> What materials do you think will float and why? What key features will your boat have? How can I make my boat? What equipment will I need? Did your boat float? 	<p>Design Plan Test Evaluate Float Sink Waterproof Strong Weak Light Heavy Stable</p>	<ul style="list-style-type: none"> Know that design is driven by a purpose Know risks to self and others when using tools <p>(1.01/1.09)</p>	<ul style="list-style-type: none"> Be able to generate a design Be able to explore ways of constructing parts of a design Be able to produce a final design proposal Be able to list materials and tools needed for production Be able to compare their design and product explaining any differences Understand that the design of products is impacted by material availability Be able to design products, taking inspiration from another source 	<p>Float boats in the pond in Junior school (linked pioneer passport)</p> 	

	5. What would you change next time?			(1.03/1.05/1.06/1.07/1.10/1.11/1.13)		
Year 2						
Autumn A to B	<ol style="list-style-type: none"> 1. What features of a type of transport do I need to move a toy from A to B? 2. What makes a vehicle move smoothly? 3. How is your final product different to your design? 	Design Plan Test Evaluate Roll Turn Spin Rotate Push Pull Forwards / Backwards Fast / Slow Roof Bonnet Boot Seat Wheels Heavy/light Strong/ weak Sturdy Robust	<ul style="list-style-type: none"> • Know that design is driven by a purpose • Know risks to self and others when using tools <p>(1.01/1.09)</p>	<ul style="list-style-type: none"> • Be able to use tools and techniques following guidance from an adult • Be able to produce a final design proposal • Be able to compare their design and product explaining any differences 	Greenwich cable cars 	
Spring Buildings	<ol style="list-style-type: none"> 1. Using what I know, how can I make the strongest, 	Design Plan Test Evaluate Wood Plastic	<ul style="list-style-type: none"> • Know that design is driven by a purpose • Know risks to self and others when using tools 	<ul style="list-style-type: none"> • Be able to define a main need of a context/situation • Be able to articulate how their design meets the identified need 	Den building (Pioneer Passport)	Explore different dens built around the UK and world. -Consider the pros and cons for building a den,

	<p>sturdiest den?</p> <p>2. What changes could I make to my den to make it stronger and sturdier and why?</p>	<p>Plan Build Construct Fabric Rope Sticks String Cardboard Netting Tarpaulin Poles Pegs Frame Base Roof Wall Sides Entrance Shelter Corner Edge Strong/Weak Wobbly Sturdy Secure Stable Upright Safe Protective</p>	<p>(1.01/1.09)</p>	<ul style="list-style-type: none"> • Be able to explore ways of constructing parts of a design • Be able to use tools and techniques following guidance from an adult • Understand that the design of products is impacted by material availability • Be able to design products, taking inspiration from another source <p>(1.02/1.04/1.05/1.08/1.09/1.11)</p>		<p>taking into account the local area.</p>
<p>Spring 2 Live and let live</p>	<p>1. How can we design a</p>	<p>Design Plan Test</p>	<ul style="list-style-type: none"> • Know that design is driven by a purpose 	<ul style="list-style-type: none"> • Be able to produce a final design proposal 	<p>Local walk to pond habitat</p>	

	<p>simple bird feeder to help wildlife?</p> <p>2. Can we use our design to make a simple bird feeder to help wildlife?</p> <p>3. Can we evaluate our bird feeder?</p>	<p>Evaluate Tie Hang Fold Make Design Strong/weak Waterproof Safe Light / heavy Smooth / rough Seed Food Feeder Garden Outside Animals Test Improve Safe Useful Finished</p>	<ul style="list-style-type: none"> • Know risks to self and others when using tools <p>(1.01/1.09)</p>	<ul style="list-style-type: none"> • Be able to list materials and tools needed for production • Be able to compare their design and product explaining any differences • Understand that the design of products is impacted by material availability <p>(1.06/1.07/1.10/1.11)</p>		
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