

The London Acorn School.

Subject overviews
Design and Technology



Autum	Kinde (Year 1)	Introduction the workshop and safety rules etc. Simple projects to assess how the Kinde children handle different tools
Spring	Kinde (Year 1)	Longer term projects involving many steps: For example: making a truck; designing a plane / rocket / items that then fit on that truck; making a robot character / animal
Summer	Kinde (Year 1)	Kinde Swords for the children's leaving ceremony in July
Autumn	Class 1 (Year 2)	Wooden dice and dice rolling towers to link to number work in maths. Tudor Houses to show the style of housing in London at the time of the Great Fire.
Spring	Class 1 (Year 2)	Making a walking staff from natural materials
Summer	Class 1 (Year 2)	Use straight and curved shapes to create dragon heads with different characteristics.
Autumn	Class 2 (Year 3)	WOODEN TOYS Children make a selection of simple wooden toys: spinning top launcher; stomper catapult and a ball bearing maze.
Spring	Class 2 (Year 3)	MECHANISMS – CAMS -Children learn about the different types of cams. -Children learn how cams and followers function. -Children design and make a cam mechanism that animates a character / scene.
Summer	Class 2 (Year 3)	MECHANISMS- LEVERS -Know that a linkage is a mechanism that uses bars (connecting rods) and pivot points to create movement. -Explore how linkages are used in daily life and distinguish between fixed and loose pivots. -Use prototypes to explore the movement of basic linkages using pivot points and bars. -Create a design idea based on the effectiveness of prototypes using a trial-and-error approach.
Autumn	Class 3 (Year 4)	PRODUCT DESIGN USING ELECTICITY -Children construct a torch or book light using batteries, bulbs and switches. -Use annotated sketches and cross-sectional drawings to develop realistic ideas and designs. -Combine and connect electrical components together to test a design idea. -Alter plans based on their views of others to improve their work.
Spring	Class 3 (Year 4)	MECHANISMS- MORE ADVANCED LEVERS -Know that a linkage is a mechanism that uses bars (connecting rods) and pivot points to create movement. -Explore how linkages are used in daily life and distinguish between fixed and loose pivots. -Use prototypes to explore the movement of basic linkages using pivot points and bars.
Summer	Class 3 (Year 4)	WOODWORK – BOX MAKING Children construct money boxes (connected to their maths topics) Learn how to construct main four walls, then adding and trimming a suitable top and base. Separate top and bottom sections, possibly adding hinges and locks / catches.
Autumn	Class 4 (Year 5)	STRUCTURES- VIKING LONG HOUSE -Explore the features specific to a VLH including the materials used to construct them. -Know that VLH were single story and compartmentalised for various purposes. -Use floor plans to draw and mark out a plan of a long house from above showing the layout of rooms within the building. -Use various tools and techniques, materials and methods to create a structure which includes interior sections. -Understand the purpose or strengthening joints using triangular axle supports.
Spring	Class 4 (Year 5)	VIKING RUNES -Learn about runes and translate names and simple words into runes. -Children learn how to use chisels safely. -Children learn how to secure wood for chisel work and to have awareness of people around them.
Summer	Class 4 (Year 5)	PACKAGING -Explore why food needs packaging, and the packaging types used. -Explore the positive & negative impact of packaging and know how and where there are recycling solutions. -Know and understand what sustainable, non-renewable, fossil fuel, pollution, global warming, greenhouse effect, carbon footprint, landfill, recycle and biodegradable means. -Use surveys and audits to inform thinking on packaging solutions and explore alternative options.
Autumn	Class 5 (Year 6)	WOODWORK – CREATING ANIMAL HABITATS Children investigate a range of animal habitats. Children design and make a birdhouse / hedgehog home / bug hotel
Spring	Class 5 (Year 6)	ANCIENT GREECE – THE TROJAN HORSE Learn about the legend of the Trojan Horse Children design and make a wooden horse with a hollow compartment and access door
Summer	Class 5 (Year 6)	STRUCTURES – PARTHENON -Explore the purpose of columns in Greek architecture. -Know that columns support the roof, give buildings a feeling of order, strength and balance and have intricate detail & symmetry. -Know the difference between 3 key Greek designs (Doric, Ionic and Corinthian) and know that these are also called 'orders'. -Know what a frieze and pediment is and how they relate to Greek structures & designs. -Cut materials with precision and refine the finish with appropriate tools.