

DT Progression Map

	Materials
EYFS 1	EAD: - Manipulate and play with different materials - Use their imagination to consider what to do with different materials - Explore different materials freely to develop ideas - Develop their own ideas and decide which materials to use to express them PD: - Explore different materials and tools - Choose the right tools to carry out their plan - Collaborate with others to manage large items - Use one handed tools and equipment
EYFS 2	EAD: - Create collaboratively sharing ideas, resources and skills - ELG- Share their creations, explaining the process they have used - ELG- Safely use and explore a variety of materials, tools and techniques PD: - Confidently and safely use a range of large and small apparatus - ELG- Use a range of small tools including scissors
Year 1	- Research and compare traditional toys (that our parents/grandparents played with) and modern-day toys - Experiment with using different materials to make a puppet (fabric, paper, card) and explore how to strengthen or make their puppet and scene/background more stable - Use tools safely to cut and assemble their puppet and background/scene - Demonstrate a range of cutting and shaping techniques such as cutting and folding - Learn how to make a mechanism and incorporate a mechanism into their design to move their puppet (puppet on a lever/pulley/slider) - Evaluate their puppet against their design criteria- purpose, function, target user - Research and comment on existing plane gliders - Test and evaluate existing gliders against their class success criteria - Explore what materials existing gliders are made of and experiment with using different materials to make a prototype/mock up - Use finishing techniques with competency to make their glider appealing to the target audience - Select and use tools safely to measure (with support), cut and assemble their glider - Test out their glider to see whether the product fulfils the brief (fit for purpose) - Evaluate their glider against their design criteria- purpose, function, target user
Year 2	- Reflect on their research from year 1 (toys our parents/grandparents played with and modern-day toys). Consider the similarities and differences and how toys have evolved over time - Experiment with using different materials to make a kite lightweight and durable - Select the materials they will use based on their properties - Select appropriate tools and use them safely and with precision to cut and assemble their kite - Demonstrate a range of cutting and shaping techniques such as tearing, cutting, folding and curling - Explore how to strengthen their kite using different materials - Assemble their kite and test it out to see whether the product fulfils the brief - Evaluate their kite against their design criteria- purpose, function, target user, was it fit for purpose
Year 3	- Research and comment on Stone age weapon considering their shape, colour and function - Experiment with using different materials to strengthen their weapon through creating a model - Identify any areas they need to improve when making their final weapon and act upon them - Select the materials they will use based on their properties - Select and use a range of suitable tools safely and with precision to measure, cut and assemble their weapon. Begin to explain their tool choices - Use finishing and embellishing techniques to make their weapon appealing to their target user (inspired by Stone age weapon) - Demonstrate a range of cutting, shaping and assembling techniques such as tearing, cutting, folding, curling and joining - Self-assess their own work against their design criteria- purpose, function, target user
Year 4	Investigate and learn about medieval weapons/ armour, consider key features, function, purpose and aesthetics of the weapon/ armour

	- Experiment with making a structure more stable and how to strength it - Select the materials they will used based on their properties, justify their choices - Select and use a range of tools safely and with precision to measure, cut and assemble their Viking longboat - Experiment with using different materials to make a working catapult (e.g. elastic bands, plasticine, string) - Demonstrate a range of cutting, shaping and assembling techniques such as cutting, scoring, tying, slotting and joining - Self-assess their own work against their design criteria- purpose, function, target user, fit for purpose - Research and look at real toys, cards and books that incorporate mechanisms (e.g. pop up books), comment on how the mechanisms work - Observe the work of Henri Rousseau and use his art to inspire their design - Research the target market of pop up/mechanised products - Experiment with using different materials to make a range of mechanisms (levers/pulleys/pop ups/sliders) - Comment on with materials worked best to make each type of mechanism and why (e.g. moved freely, less friction against materials) - Select the materials they will use based on their properties and justify their choices, linking their choices to the mechanisms they looked at (in books etc) - Select and use tools safely and with to measure, cut and assemble their design - Make creative, eye catching packaging/labelling to market their product, considering their target market - Self-assess their own work against their design criteria- purpose, function, target user, appearance
Year 5	- Research and recognise Georgian architectural features and compare them to modern day architecture - Select appropriate tools and use them safely with precision to cut, shape, score and join materials accurately - Measure and mark out materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) - Select materials and justify their choices- show an understanding of the properties of different materials - Experiment with how to strengthen, stiffen and reinforce structures - Self-assess their own work and consider the views of others when evaluating - Improve their building based on their own evaluation and peer feedback
Year 6	- Research Victorian toys, what materials they are made from and the colour/designs used - Experiment with using different materials to construct their toy - Experiment with different shaping techniques- cutting, tearing, rolling, twisting, scrunching - Select appropriate tools and use them safely with precision to cut, shape, score and join materials accurately to create a desired finish - Measure and mark out materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) - Create an exploded diagram to explain the making process - Use different finishing techniques to add colour and detail to make their toy appealing to their target user - Self-assess their own work and consider the views of others when evaluating

	Mechanisms
EYFS	*Explore pop ups books and working mechanisms in toys.
EYFS	*Provide a range of resources within the provision that contain mechanisms- comment on and discuss how they work with pupils.
Year 1	- Research and compare traditional toys (that our parents/grandparents played with) and modern-day toys - Experiment with using different materials to make a puppet (fabric, paper, card) and explore how to strengthen or make their puppet and scene/background more stable - Use tools safely to cut and assemble their puppet and background/scene - Demonstrate a range of cutting and shaping techniques such as cutting and folding - Learn how to make a mechanism and incorporate a mechanism into their design to move their puppet (puppet on a slider) - Evaluate their puppet against their design criteria- purpose, function, target user
Year 2	- Research and comment on the first automobile and modern day cars. Consider how and why they have evolved over time (e.g. why they've evolved to have more seats, additional features that have been added over time- wing mirrors etc) - Select the materials they will use based on their properties - Experiment with making different types of mechanisms - Make a mock-up/prototype of the mechanised element of their car (lever/pulley) - Select appropriate tools and use them safely and with precision to measure (with some support), cut and assemble their car - Demonstrate a range of cutting, shaping and finishing techniques - Assemble their car and test it out to see whether the product fulfils the brief - Evaluate their car against their design criteria- purpose, function, target user
Year 3	- Research Egyptian Pyramids and modern buildings, compare structural features and embellishment. Consider the similarities and differences. - Experiment with using different materials to make a prototype/mock up of their mechanism (lever/pulley/slider to move the door/entrance)

	- Select the materials they will use based on their properties - Select and use tools safely to measure, cut and assemble - Learn how to make a mechanism and incorporate a mechanism into their design to move the door/entrance on their pyramid (lever/pulley/slider) Choose which one they will add to their pyramid and justify their choice - Demonstrate a range of cutting, shaping and assembling techniques such as tearing, cutting, folding, curling and joining - Self-assess their own work against their design criteria- purpose, function, target user
Year 4	- Research and look at real toys, cards and books that incorporate mechanisms (e.g. pop up books), comment on how the mechanisms work - Observe the work of Henri Rousseau and use his art to inspire their design - Research the target market of pop up/mechanised products - Experiment with using different materials to make a range of mechanisms (levers/pulleys/pop ups/sliders) - Comment on with materials worked best to make each type of mechanism and why (e.g. moved freely, less friction against materials) - Select the materials they will use based on their properties and justify their choices, linking their choices to the mechanisms they looked at (in books etc) - Select and use tools safely and with to measure, cut and assemble their design - Make creative, eye catching packaging/labelling to market their product, considering their target market - Self-assess their own work against their design criteria- purpose, function, target user, appearance
Year 5	- Research suspension bridges and comment on the key features - Select appropriate tools and use them safely with precision to cut, shape and score materials accurately - Justify their tool choices (in relation to the techniques they will be using) - Measure, mark out and score materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) - Select materials and justify their choices- show an understanding of the properties of different materials - Use a range of materials and experiment with using different materials to strengthen, stiffen and reinforce their bridge - Experiment with making mechanisms to make their bridge fit for purpose - Incorporate a mechanism into their design (lever/pulley/slider) - Test out their bridge to see whether it is fit for purpose and meets the brief - Self-assess their own work and consider the views of others when evaluating - Improve their bridge based on their own evaluation and peer feedback
Year 6	- Research WW2 tanks, commenting on their key features and function - Select appropriate tools and use them safely with precision to cut, shape, score and join materials accurately, ensure the edges having a professional finish (no jagged lines etc) - Justify their tool choices, considering the techniques they will be using and safety measures they need to take when using more specialised tools - Measure and mark out materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) - Create an accurate to scale drawing of their design using exact measurements - Create a mock up of their tank, experimenting with using different materials to strengthen and reinforce their tank - Select materials and justify their choices- show an understanding of the properties of different materials (use their mock up to explain their choices) - Experiment with making mechanisms to make their tank fit for purpose - Incorporate two mechanism into their design (lever/pulley/slider/pop up) - Self-assess their own work and consider the views of others when evaluating - Improve their building based on their own evaluation and peer feedback

	Structures
EYFS 1	EAD: - Make simple models which express their ideas - Make imaginative and complex small worlds with blocks and construction kits PD: - Explore different materials and tools - Choose the right tools to carry out their plan - Collaborate with others to manage large items - Use one handed tools and equipment
EYFS 2	EAD: - ELG- Share their creations, explaining the process they have used - ELG- Safely use and explore a variety of materials, tools and techniques

	PD: • Confidently and safely use a range of large and small apparatus • ELG- Use a range of small tools including scissors
Year 1	• Research and comment on existing plane gliders • Test and evaluate existing gliders against their class success criteria • Explore what materials existing gliders are made of and experiment with using different materials to make a prototype/mock up • Use finishing techniques with competency to make their glider appealing to the target audience • Select and use tools safely to measure (with support), cut and assemble their glider • Test out their glider to see whether the product fulfils the brief (fit for purpose) • Evaluate their glider against their design criteria- purpose, function, target user
Year 2	• Research and comment on the first automobile and modern day cars. Consider how and why they have evolved over time (e.g. why they've evolved to have more seats, additional features that have been added over time- wing mirrors etc) • Select the materials they will use based on their properties • Experiment with making different types of mechanisms, choose which one they will add to their car and justify their choice • Make a mock-up/prototype of the mechanised element of their car • Select appropriate tools and use them safely and with precision to measure (with some support), cut and assemble their car • Demonstrate a range of cutting, shaping and finishing techniques • Assemble their car and test it out to see whether the product fulfils the brief • Evaluate their car against their design criteria- purpose, function, target user
Year 3	• Research Egyptian Pyramids and modern buildings, compare structural features and embellishment. Consider the similarities and differences. • Experiment with using different materials to make a prototype/mock up of their mechanism (lever/pulley/slider to move the door/entrance) • Select the materials they will use based on their properties • Select and use tools safely to measure, cut and assemble • Learn how to make a mechanism and incorporate a mechanism into their design to move the door/entrance on their pyramid (lever/pulley/slider) Choose which one they will add to their pyramid and justify their choice • Demonstrate a range of cutting, shaping and assembling techniques such as tearing, cutting, folding, curling and joining • Self-assess their own work against their design criteria- purpose, function, target user
Year 4	• Investigate and learn about medieval weapons/armour, consider key features, function, purpose and aesthetics of the weapon/armour • Experiment with making a structure more stable and how to strength it • Select the materials they will used based on their properties, justify their choices • Select and use a range of tools safely and with precision to measure, cut and assemble their Viking longboat • Experiment with using different materials to make a working catapult (e.g. elastic bands, plasticine, string) • Demonstrate a range of cutting, shaping and assembling techniques such as cutting, scoring, tying, slotting and joining • Self-assess their own work against their design criteria- purpose, function, target user, fit for purpose
Year 5	• Research and recognise Georgian architectural features and compare them to modern day architecture • Select appropriate tools and use them safely with precision to cut, shape, score and join materials accurately • Measure and mark out materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) • Select materials and justify their choices- show an understanding of the properties of different materials • Experiment with how to strengthen, stiffen and reinforce structures • Self-assess their own work and consider the views of others when evaluating • Improve their building based on their own evaluation and peer feedback • Research suspension bridges and comment on the key features • Select appropriate tools and use them safely with precision to cut, shape and score materials accurately • Justify their tool choices (in relation to the techniques they will be using) • Measure, mark out and score materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) • Select materials and justify their choices- show an understanding of the properties of different materials • Use a range of materials and experiment with using different materials to strengthen, stiffen and reinforce their bridge • Experiment with making mechanisms to make their bridge fit for purpose • Incorporate a mechanism into their design (lever/pulley/slider) • Test out their bridge to see whether it is fit for purpose and meets the brief • Self-assess their own work and consider the views of others when evaluating

	Improve their bridge based on their own evaluation and peer feedback
Year 6	- Research WW2 tanks, commenting on their key features and function - Select appropriate tools and use them safely with precision to cut, shape, score and join materials accurately, ensure the edges having a professional finish (no jagged lines etc) - Justify their tool choices, considering the techniques they will be using and safety measures they need to take when using more specialised tools - Measure and mark out materials accurately ready to cut and assemble using exact measurements (e.g., mm, cm...) - Create an accurate to scale drawing of their design using exact measurements - Create a mock up of their tank, experimenting with using different materials to strengthen and reinforce their tank - Select materials and justify their choices- show an understanding of the properties of different materials (use their mock up to explain their choices) - Experiment with making mechanisms to make their tank fit for purpose - Incorporate two mechanism into their design (lever/pulley/slider/pop up) - Self-assess their own work and consider the views of others when evaluating - Improve their tank based on their own evaluation and peer feedback

	Cooking and nutrition
EYFS 1	PD: - Use one handed tools and equipment - Make healthy choices about food, drink, activity and tooth brushing
EYFS 2	EAD: - ELG- Safely use and explore a variety of materials, tools and techniques PD: - Make healthy choices about food, drink, activity and tooth brushing - Confidently and safely use a range of large and small apparatus - ELG- Use a range of small tools including scissors PSED: - ELG- Manage their own basic hygiene personal needs* understand the importance of healthy food choices
Year 1	- Research and comment on healthy eating - Identify healthy and unhealthy foods - Taste test and comment on the colour, taste and texture of different fruits - Carefully select ingredients, considering their colour and taste - Follow their recipe/design and hygienic food preparation practices - Use utensils safely to prepare ingredients - Use the techniques- chopping and slicing - Evaluate their own fruit kebab and discuss with adult support, what they would do differently if they made it again
Year 2	- Research and comment on healthy eating and the Eatwell plate - Categorise healthy and unhealthy foods - Categorise and name the components of a balanced diet - Taste test and evaluate existing fruit yoghurts against set criteria - Carefully select ingredients, considering their colour, texture and taste - Follow their recipe step by step and hygienic food preparation practices - Use utensils safely and competently to prepare ingredients - Use the techniques- chopping, slicing, dicing, mixing, mashing - Evaluate their own fruit yoghurt and decide on what they would do differently if they made it again
Year 3	- Categorise and name the components of a balanced diet- recap on last year - Comment on the colour, taste and texture of traditional Greek food (taste test existing products) - Carefully select ingredients, considering where the ingredients are grown and seasonality - Follow their recipe step by step and hygienic food preparation practices, explaining why hygienic practices are important when preparing food - Select appropriate utensils and use them safely to prepare ingredients - Measure and weigh out ingredients and begin to use the correct measures (use the measures- ml/l and g/kg)

	• Use the techniques- peeling, chopping, slicing, grating and mixing • Evaluate their own dip and decide on what they would do differently if they made the dip again
Year 4	• Research and learn about a Viking diet • Discuss what they ate and how they cooked their food (cooking methods and techniques) • Select ingredients that are staples of the Viking diet, considering colour, texture and taste • Adapt their dish to suit a specific dietary requirement- vegetarian- explain what ingredients they are going to substitute and why they chose the ingredient to replace e.g. meat in the dish • Follow their recipe step by step and hygienic food preparation practices without prompts, explaining what hygienic practices they are following and why • Measure and weigh out ingredients and use the correct measures (use the measures- ml/l and g/kg) • Use the techniques- peeling, chopping, slicing, dicing, grating, mixing, stirring, boiling • Evaluate their dish and identify what they'd do differently if they made it again
Year 5	• Research and comment on Mayan dishes/delicacies, considering the ingredients and techniques used to make them • Compare Mayan chocolate with British chocolate brands, considering similarities and differences • Carefully select appropriate ingredients, considering where the ingredients are grown and seasonality and put their own twist on the dish (e.g. add a new ingredient or use a different technique) • Describe in detail the components of a healthy and balanced diet (The Eatwell Plate) • Follow their own recipe and hygienic food preparation practices to prepare and cook, adapting their recipe as they go if needed (e.g. If a technique isn't working) • Select appropriate utensils, justifying their choices and use them safely to prepare ingredients • Measure and weigh out ingredients accurately (use the measures- ml/l and g/kg) • Use the techniques- whisking, mixing, creaming, slicing, greasing (e.g. the tin/tray), kneading, spreading and baking • Evaluate their own dish and decide on what they would do differently if they made the dish again • Peer assess other dishes giving constructive feedback- two stars and a wish
Year 6	• Research and comment on recipes from different countries, considering the ingredients (seasonality and where the dish comes from- ingredients grown there) • Research starter, main and desserts that they would like to make and what techniques/methods are used to make them • Carefully select appropriate ingredients, considering where the ingredients are grown, seasonality, taste, texture, colour • Describe in detail the components of a healthy and balanced diet (The Eatwell Plate) and how their menu provides the components of this • Follow their own recipe and hygienic food preparation practices to prepare and cook, adapting their recipe as they go if needed • Taste their dish during the cooking process, comment on the flavour and consider whether they need to add any condiments, sauces, herbs or spices • Select appropriate utensils, justifying their choices and use them safely to prepare ingredients • Measure and weigh out ingredients accurately (use the measures- ml/l and g/kg) • Use the techniques- cutting, chopping, slicing, julienne, dicing, boiling, frying, grating, whisking, mixing, creaming, slicing, greasing (e.g. the tin/tray), kneading, spreading and baking • Perfect the techniques by practising and ensure the ingredients and dishes have a professional finish (e.g. carrots cut into slices of equal width) • Evaluate their own dish and decide on what they would do differently if they made the dish again • Peer assess other dishes giving constructive feedback- two stars and a wish