



Progression Document

# **Design and Technology**





# Barnburgh Primary Academy Vision & Values

## Barnburgh Primary Academy Vision

Learning to SHINE together!

## Barnburgh Primary Academy Core Values

**PERSEVERANCE**

To never give up

**AMBITION**

To aim high

**RESPECT**

To think and act in a positive way  
towards everyone and everything

**COURAGE**

To take risks in my learning

**INDEPENDENCE**

To have a go all by myself

## Leger Education Trust Values

Our Core Values are the skills we focus on to achieve 'Truly Great' things. We call this...

**ASPIRE**



## DESIGN AND TECHNOLOGY

*"Technology makes possibilities. Design makes solutions."*

John Maeda

### INTENT

At Barnburgh Primary Academy, the impact of our Design and Technology curriculum is evident in the confidence, creativity, and resilience shown by our pupils. Children leave each stage of their learning with the knowledge, skills, and understanding needed to design purposeful products, solve real-world problems, and evaluate their work thoughtfully. They understand that Design and Technology is a process that values exploration, innovation, and improvement.

Through carefully planned learning experiences, pupils develop technical skills alongside an understanding of aesthetic, social, and environmental considerations. They learn to identify needs and opportunities, generate and refine ideas, and create products and systems that reflect both function and creativity. Mistakes are recognised as a natural and valuable part of the design process, enabling children to grow as independent and reflective learners.

Our Design and Technology curriculum is firmly rooted in our Core Values and these are clearly demonstrated in pupils' attitudes and outcomes:

#### **Courage**

Pupils confidently take risks, try new ideas, and experiment with materials and techniques. They understand that mistakes are part of the learning journey and use them as opportunities to improve the quality of their work.

#### **Perseverance**

Children show determination when faced with challenges, continually refining and re-evaluating their designs. They understand that high-quality outcomes often require time, effort, and repeated improvement, and they develop the resilience needed to see projects through from concept to completion.

#### **Ambition**

Pupils take pride in their work and are motivated to achieve high standards. They are encouraged to push beyond what they believe is their best, resulting in designs that demonstrate creativity, precision, and purpose.

#### **Respect**

Children respect the ideas, creativity, and achievements of their peers, offering constructive feedback and working collaboratively. They also demonstrate respect for tools, equipment, and materials, understanding the importance of safety and responsibility in Design and Technology.

#### **Independence**

Pupils become confident, self-reliant designers who can think critically and solve problems independently. They understand that successful designing requires careful attention to detail, thoughtful decision-making, and the ability to overcome challenges with confidence.

Overall, the impact of Design and Technology at Barnburgh is seen in pupils who are enthusiastic, reflective, and capable designers. They leave primary school equipped with transferable skills—such as problem-solving, collaboration, and resilience—that prepare them well for future learning and for life in an ever-changing world.



# Implementation

## HOW WE TEACH DESIGN AND TECHNOLOGY IN EYFS

In EYFS, we introduce children to the foundations of design and technology by offering a rich balance of child-led exploration through continuous provision and adult-led, purposeful teaching. These experiences are thoughtfully planned to nurture creativity, develop fine motor and practical skills, and build confidence in making and constructing. Children are encouraged to explore materials and tools safely, solve problems, test ideas, and talk about what they have made and why, laying the foundations for becoming imaginative designers and confident makers.

DESIGN	MAKE	EVALUATE
<p><b>Throughout the year, children:</b></p> <ul style="list-style-type: none"> <li>Children explore and talk about everyday products and structures in their environment (e.g. toys, buildings, vehicles).</li> <li>Opportunities are given to plan what they want to create before making, through drawing, role-play, talk or selecting resources.</li> <li>Adults model design language such as plan, idea, purpose, join, choose, improve, stronger, safe.</li> <li>Children are encouraged to think about the purpose of their product and who it is for.</li> <li>Problem-solving and adapting ideas are consistently supported through questioning: What could you do next? How will it work? What do you need?</li> </ul> <p><b>In continuous provision:</b> Resources available to inspire designing and planning such as:</p> <ul style="list-style-type: none"> <li>Loose parts &amp; construction blocks</li> <li>Junk modelling materials</li> <li>Fabrics and simple textiles</li> <li>Drawing &amp; mark-making tools for planning ideas</li> <li>Tool stations (e.g., child-safe scissors, tape dispensers) promote independent selection and experimentation.</li> <li>Children choose materials to match their idea and begin to justify their choices verbally.</li> <li>Adults join play, scaffold thinking, and encourage children to talk through their ideas before and during making.</li> </ul> <p><b>In direct teaching:</b></p> <ul style="list-style-type: none"> <li>Explicit teaching of design vocabulary and concepts (e.g., plan, purpose, materials, strong, join).</li> <li>Modelled examples of how to plan a product, discussing: What they are making? Who it is for? What materials they need?</li> <li>Guided design tasks linked to themes/books (e.g., designing a bridge for a story character; designing a vehicle for a journey).</li> <li>Focused adult-led sessions introducing: How to select appropriate tools/materials, and how to talk about their design choices.</li> <li>Opportunities for children to present and explain their design ideas to peers before making.</li> </ul>	<p><b>Throughout the year, children:</b></p> <ul style="list-style-type: none"> <li>Children explore a wide range of construction and making materials, learning how different resources can be joined, strengthened and shaped.</li> <li>Adults model and reinforce safe tool handling (e.g. scissors, glue spreaders, tape dispensers, hole punch).</li> <li>Children practise skills such as cutting, folding, joining, fastening and combining materials, gradually gaining independence.</li> <li>Problem-solving is encouraged: What could you use to fix this? How can we make it stand up?</li> <li>Children are supported to adapt their work as they go, developing resilience and confidence when plans change.</li> <li>Product vocabulary and skill language is embedded, e.g., cut, join, attach, build, fold, tape, glue, stronger, fix.</li> </ul> <p><b>In continuous provision:</b> Provision and making areas provide open-ended materials including:</p> <ul style="list-style-type: none"> <li>Junk modelling resources</li> <li>Recyclables (boxes, tubes, trays)</li> <li>Tape, glue sticks, PVA with supervision</li> <li>Fabric pieces, string, fasteners</li> <li>Child-safe cutting and joining tools</li> <li>Construction kits (e.g., blocks, magnets, simple connectors)</li> <li>Offer real-life and imaginative prompts (e.g., Can you make a house/vehicle/bridge?).</li> <li>Children freely select tools and materials, practising joining techniques and exploring stability, strength and movement.</li> <li>Adults sensitively support through play, modelling vocabulary and encouraging children to talk through their making process.</li> </ul> <p><b>In direct teaching:</b></p> <ul style="list-style-type: none"> <li>Explicit teaching of <b>making techniques</b> such as: <ul style="list-style-type: none"> <li>-Cutting and shaping materials</li> <li>-Folding, bending and strengthening</li> <li>-Joining techniques (glue, tape, tabs, slotting, tying, fasteners)</li> </ul> </li> <li>Step-by-step modelling of tool safety routines.</li> <li>Guided projects linked to stories or themes (e.g., making a boat for a character, building a shelter, creating a moving part on a model).</li> <li>Children practise preparing materials, selecting tools and assembling components with adult scaffolding.</li> <li>Discussion of making choices: <i>Which tool will work best? What material is strongest?</i></li> <li>Opportunities to share finished models and explain the making process in simple terms.</li> </ul>	<p><b>Throughout the year, children:</b></p> <ul style="list-style-type: none"> <li>Children are encouraged to talk about what they have made and how they made it, using simple language to describe choices and processes.</li> <li>Adults prompt reflection with questions such as: <ul style="list-style-type: none"> <li>What do you like best about it? Does it do what you wanted? What could you change next time?</li> </ul> </li> <li>Children begin to compare their models and designs with real objects and talk about similarities and differences.</li> <li>Evaluation skills are fostered through a nurturing atmosphere where changes and mistakes are viewed as part of learning.</li> <li>Children gradually build vocabulary linked to evaluating and improving, e.g. change, fix, improve, strong, safe, works, finished.</li> </ul> <p><b>In continuous provision:</b></p> <ul style="list-style-type: none"> <li>Spaces are planned for children to place their models and talk about them with adults and peers (e.g., "maker's shelf", display tray).</li> <li>Adults support reflective conversations during play, encouraging children to point out features and discuss what works well.</li> <li>Mirrors, photos, and simple planning/recording prompts are available so children can revisit and talk about their making process.</li> <li>Children are encouraged to return to previous creations to adapt, improve or finish them, embedding reflective practice.</li> <li>Simple feedback routines are modelled (e.g., I noticed you made it stronger here), encouraging children to give kind, specific feedback to peers.</li> </ul> <p><b>In direct teaching:</b></p> <ul style="list-style-type: none"> <li>Adults model how to talk about finished work using supportive sentence stems, e.g.: "I chose this because... / Next time I might... / I changed it because..."</li> <li>Structured opportunities are provided for children to present their creations to peers, promoting confidence and communication.</li> <li>Guided sessions support children in identifying whether their product meets its intended purpose (e.g., Did the bridge hold the toy?).</li> <li>Teachers explicitly introduce evaluation vocabulary and demonstrate how to check products for function, strength and appearance.</li> <li>Adults guide children in thinking about improvements, reinforcing positive attitudes towards adapting and refining work.</li> </ul>

## HOW WE TEACH DESIGN AND TECHNOLOGY IN YEAR 1 TO 6

Across Key Stage 1 and Key Stage 2, children progressively develop their design and technology skills through purposeful, practical learning. They learn to plan and communicate ideas, select and use tools and materials safely and accurately, and evaluate their products thoughtfully. As they move through the school, pupils grow in independence, creativity and technical skill—designing with specific users and functions in mind, solving problems, improving their work through testing and feedback, and applying increasing precision and vocabulary. This prepares them to think and work like designers and makers, understanding the full process from idea to finished product.

DESIGN	MAKE	EVALUATE
<p><b>Throughout the year, children:</b></p> <ul style="list-style-type: none"> <li>Children engage in design tasks across a variety of contexts (construction, mechanisms, textiles, healthy eating &amp; nutrition) to solve real problems.</li> <li>Children practise planning ideas for a specific user and purpose, using increasing detail and technical vocabulary over time.</li> <li>Adults model how to gather information, explore existing products, and discuss what makes a design successful.</li> <li>Design booklets are used to record ideas, annotate choices, and revisit designs, mirroring the ongoing creative reflection used in design briefs.</li> <li>Children are encouraged to refine ideas and consider improvements as they progress through the key stages.</li> </ul> <p><b>In ongoing practise:</b></p> <ul style="list-style-type: none"> <li>Opportunities for children to explore materials, components and mechanisms, experimenting before committing to a final design.</li> <li>Development of design vocabulary (e.g., purpose, user, features, function, plan, annotate, criteria)</li> <li>Children review and adapt initial ideas as part of their design process, adding notes and simple diagrams that become more technical and annotated in KS2.</li> <li>Regular use of reflective questions: Who is it for? What does it need to do? How will it work? What could be improved?</li> <li>Peer discussion to share ideas and offer supportive feedback, embedding positive critique.</li> </ul> <p><b>In direct teaching:</b></p> <ul style="list-style-type: none"> <li>Teachers demonstrate how to plan and communicate design ideas using drawings, templates, mock-ups, and increasingly complex prototypes as pupils move through school.</li> <li>Children are taught how to analyse existing products and use findings to inform their designs.</li> <li>Explicit teaching of design criteria and success measures, supporting purposeful and functional outcomes.</li> <li>Teachers model decision-making processes (e.g., choosing materials or components for strength, flexibility or suitability).</li> <li>Guided teacher questioning helps pupils justify design choices and think critically about improvements.</li> </ul>	<p><b>Throughout the year, children:</b></p> <ul style="list-style-type: none"> <li>Children develop practical making skills across a range of projects, working with increasing precision and independence as they move through school.</li> <li>Pupils use a variety of tools, materials, components and joining techniques appropriate to their age and design intentions.</li> <li>Teachers emphasise safe, controlled use of equipment, building fine motor skills and tool confidence progressively.</li> <li>Children practise adapting and improving their products as they work, understanding that making is a process that may involve testing, trial-and-error and refinement.</li> <li>Design booklets are used to revisit and refine ideas during the making process.</li> </ul> <p><b>In ongoing practise:</b></p> <ul style="list-style-type: none"> <li>Opportunities to practise handling and using real tools, materials and construction methods regularly, not only in final projects.</li> <li>Children learn and apply technical vocabulary such as cut, join, attach, measure, strengthen, reinforce, mechanism, assemble, building in complexity each year.</li> <li>Pupils work collaboratively at times, learning to support one another, share resources and problem-solve together.</li> <li>Children are encouraged to test parts as they build, e.g., Does the wheel turn? Is the structure strong enough?</li> <li>Materials and tools are revisited to build familiarity and fluency, with increasing attention to accuracy, control and purpose.</li> </ul> <p><b>In direct teaching:</b></p> <ul style="list-style-type: none"> <li>Teachers explicitly demonstrate correct tool handling and making techniques, gradually releasing independence as skill grows.</li> <li>Modelling includes how to measure, mark out, cut, shape, join and finish materials safely and accurately.</li> <li>Children are shown how to adjust techniques if something doesn't work as planned, embedding resilience and problem-solving.</li> <li>Direct instruction supports children in choosing appropriate materials, components and methods based on structure, strength, function and purpose.</li> <li>Teachers guide pupils to trial prototypes where appropriate, learning that refined making decisions are part of a real design process.</li> </ul>	<p><b>Throughout the year, children:</b></p> <ul style="list-style-type: none"> <li>Children reflect on their work throughout the design and making process, not only at the end.</li> <li>Pupils discuss what works well and what could be improved, using precise design and technology vocabulary that develops over time.</li> <li>Self-assessment and peer feedback are encouraged to build confidence, resilience and a reflective mindset.</li> <li>Evaluations consider purpose, function, user needs and design criteria, becoming increasingly detailed and evidence-based as pupils progress through the school.</li> <li>Teachers promote a culture where testing, adapting and refining products are valued steps in the design process.</li> </ul> <p><b>In ongoing practise:</b></p> <ul style="list-style-type: none"> <li>Children review their own and others' products using structured prompts and growing technical language (e.g., strong / stable / smooth / effective / accurate / suitable).</li> <li>Pupils revisit and refine their work based on testing and evaluation, developing perseverance and problem-solving skills.</li> <li>Evaluation evolves from simple comments in KS1 (e.g., I like... because...) to thoughtful critique in KS2 (e.g., This meets the user's needs because... but it could be improved by...).</li> <li>Children justify choices using evidence from trials, tests and observations.</li> <li>Regular peer-discussion builds communication skills and teaches constructive feedback routines.</li> </ul> <p><b>In direct teaching:</b></p> <ul style="list-style-type: none"> <li>Teachers model how to evaluate products against design criteria, user needs and intended function.</li> <li>Guided questioning supports children to think critically and suggest improvements (e.g., How well does it work? What could make it better?).</li> <li>Pupils gradually move from using structured evaluation sheets to independent written and verbal evaluations.</li> <li>Children learn to test the performance, safety, strength, accuracy and usability of their products.</li> <li>Evaluating includes looking at existing products and discussing what makes them effective, inspiring improved design choices.</li> </ul>



# Impact

## General Assessment Principles Across All Ages

- **Formative Assessment:** Ongoing observations, questioning, discussion and feedback during practical tasks and design stages to identify understanding, skills development and next steps.
- **Summative Assessment:** Reviews of design plans, prototypes and finished products; assessments against the National Curriculum objectives on Sonar and design–make–evaluate criteria; and end-of-unit evaluations.
- **Pupil Involvement:** Children are encouraged to talk about their ideas, explain their design choices, test and refine their work, and reflect on what worked well and what they would improve.
- **Contextualised Judgement:** Considering individual starting points and progress, valuing creativity, problem-solving, resilience, and thoughtful evaluation just as much as technical accuracy, finish and functionality.

EYFS	KS1	LOWER KS2	UPPER KS2
<p>In Early Years, assessment focuses on developing curiosity about how things are made and how they work, encouraging children to explore materials and tools, experiment with joining and constructing, solve simple problems, and talk about their ideas through play and practical experiences.</p> <p><b>What we look for:</b></p> <ul style="list-style-type: none"> <li>• Exploration of tools and materials</li> <li>• Early design talk: "I'm making..."</li> <li>• Beginning to assemble and join materials</li> <li>• Can explain simple choices</li> <li>• Growing independence and confidence</li> </ul> <p><b>Assessment methods:</b></p> <ul style="list-style-type: none"> <li>• Observations and photos</li> <li>• Conversations about products</li> <li>• Collecting models and plans as evidence</li> <li>• Assessing against Early Learning Goals</li> </ul>	<p>In Key Stage 1, assessment focuses on developing early design skills, encouraging children to plan simple ideas, select suitable tools and materials, and begin to safely join, cut and assemble with growing control. Children are supported to talk about the purpose of their product, test their ideas, and describe what worked well and what they might change.</p> <p><b>What we look for:</b></p> <ul style="list-style-type: none"> <li>• Ability to plan simple designs with a purpose and user in mind</li> <li>• Selection of tools/materials with support</li> <li>• Basic cutting, shaping, joining</li> <li>• Simple testing and improvement</li> <li>• Talking about what works well</li> </ul> <p><b>Assessment methods:</b></p> <ul style="list-style-type: none"> <li>• Reviewing design sheets/booklets</li> <li>• Teacher assessment against NC objectives</li> <li>• Evidence of building independence and control</li> <li>• Peer and self-evaluation conversations</li> </ul>	<p>In Lower KS2, assessment focuses on increasing independence in the design and making process. Children begin to research and develop design ideas with a clearer purpose and user in mind, selecting from a wider range of tools and materials with greater accuracy and control. They are encouraged to test components, adapt their work as they build, and evaluate how well their product meets its intended function, beginning to justify their choices and improvements.</p> <p><b>What we look for:</b></p> <ul style="list-style-type: none"> <li>• More detailed plans and labelled diagrams</li> <li>• Accurate tool use and measuring</li> <li>• Builds prototypes and tests ideas</li> <li>• Makes changes when things don't work</li> <li>• Evaluates against design criteria</li> </ul> <p><b>Assessment methods:</b></p> <ul style="list-style-type: none"> <li>• Reviewing plans, prototypes, finished products and evaluation notes</li> <li>• Teacher assessment of skills and technical knowledge</li> <li>• Encouraging reflective language and problem-solving</li> <li>• Observation and questioning</li> </ul>	<p>In Upper KS2, assessment focuses on refining design thinking, accuracy and technical skill. Pupils are expected to plan and communicate detailed design ideas, select and use tools and techniques with precision, and make decisions based on research, testing and user needs. They evaluate and refine prototypes, justify design choices using technical vocabulary, and demonstrate a secure understanding of function, form and purpose through thoughtful, evidence-based reflection.</p> <p><b>What we look for:</b></p> <ul style="list-style-type: none"> <li>• Research and design based on user needs</li> <li>• Accurate, safe and efficient tool use</li> <li>• Refined prototypes and iterative improvements</li> <li>• Justifies material and method choices</li> <li>• Evaluates effectiveness and suggests further improvements</li> </ul> <p><b>Assessment methods:</b></p> <ul style="list-style-type: none"> <li>• Evaluation against success criteria and user needs</li> <li>• Verbal and written evaluations</li> <li>• Reviewing development across planning → making → evaluating</li> <li>• Peer critique and self-reflection</li> </ul>



# Statutory Links

## Birth to 5 Matters & Early Learning Goals

### EYFS

In EYFS, children begin to explore early elements of design and technology through hands-on play, modelling and construction. Learning links to the Expressive Arts & Design – Creating with Materials statements, and is supported by Physical Development and Communication & Language.

#### Children will:

- Explore and combine materials for a purpose
- Begin to use simple tools safely and with control
- Learn to join, build and shape materials
- Develop ideas and talk about what they are making and why
- Adapt work as they explore, building early problem-solving skills

This lays the foundation for designing, making and evaluating with greater independence in KS1.

## National Curriculum programmes of Study for Design and Technology

### Key Stage 1

Children develop early design and making skills and learn to create purposeful products based on simple design criteria and real user needs.

#### Children will:

**Design** - design purposeful, functional, appealing products for themselves and other users based on design criteria.

- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

#### Make -

- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

#### Evaluate -

- Explore and evaluate a range of existing products.
- Evaluate their ideas and products against design criteria.

#### Technical knowledge –

- build structures, exploring how they can be made stronger, stiffer and more stable.
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

**Cooking and nutrition** - As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating.

Children should be taught to:

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.

### Key Stage 2

Children will refine design decisions, accuracy and technical knowledge, applying more complex skills including mechanisms, structures, electrical systems and digital tools.

#### Children will:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making.

#### Children will:

- Work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

- When designing and making, pupils will be taught to:

**Design** - use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

**Make** - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.

- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

**Evaluate** - investigate and analyse a range of existing products.

- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- Understand how key events and individuals in design and technology have helped shape the world Technical knowledge.
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
- Apply their understanding of computing to program, monitor and control their products.

#### Technical knowledge:

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
- Apply their understanding of computing to program, monitor and control their products.

#### Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating.

Children should be taught to:

- Understand and apply the principles of a healthy and varied diet
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.



# Design

Curriculum Link with Science: Properties of materials (all year groups).

## KNOWLEDGE PROGRESSION MAP FOR DESIGN

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That their own ideas can be used to design a product</li> <li>• That they will need to follow a process to create a product</li> <li>• That their product is designed for a reason</li> <li>• That their product will work in a specific way</li> <li>• That they can use pictures and words to plan what a product will look like/ operate</li> <li>• That a design criterion are the really important goals that must be achieve in order for a project to be successful.</li> <li>• That they can follow a design criterion as a guide to help construct a product</li> <li>• That they can use similar existing products to assist their design</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That their own ideas can be used to design a product</li> <li>• That their product will need to be fit for purpose</li> <li>• That their product will work in a specific way</li> <li>• That their design is suitable for a specific user</li> <li>• That they can use picture, words and diagrams to design a product</li> <li>• That they should follow a design criterion when completing a project/ product</li> <li>• That an existing product is something that is already made and you can purchase</li> <li>• That their knowledge of existing products will help them produce their own ideas</li> <li>• That different tools are available to create a product</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That their design will need to meets a range of requirements</li> <li>• That there is a specific purpose of their product</li> <li>• That they will need to follow a specific design criterion</li> <li>• How to create a product</li> <li>• That a plan is used to show the other, equipment and tools they will use</li> <li>• That they can accurately label a sketch</li> <li>• That a prototype is a first version of a product</li> <li>• That a prototype can be made using original ideas to ensure suitability</li> <li>• That a product will work if the design criteria is followed correctly</li> <li>• That they can use computers to show different designs</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That research can be used to design individual ideas</li> <li>• That their design is fit for purpose</li> <li>• That they can use an annotated sketch to design a product</li> <li>• That improvements can be made to a product</li> <li>• That the correct vocabulary should be used to explain a product design to others</li> <li>• That certain resources are available to complete a design</li> <li>• That they can make prototypes of a product</li> <li>• That they can use computers to show a series of different designs</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That the internet can be used for research and design ideas</li> <li>• That the user's views need to be considered when designing</li> <li>• That they need to consider the needs/wants of the user when designing and ensure the product is fit for purpose</li> <li>• That they will need to develop their own design criteria to complete the design of a product</li> <li>• That a logical, realistic plan is necessary</li> <li>• That their product will clearly work and how this will happen</li> <li>• That they can use pattern pieces to refine and design ideas</li> <li>• That computer-aided design is a process that allows us to digitally create 2D drawings or 3D models</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That market research is the process of gathering and analyzing information about a product in order to gain insight into customers, competitors, and the market itself</li> <li>• That a specification is a set of design criteria created before a process begins</li> <li>• That a logical plan is a plan that includes the correct steps</li> <li>• That an exploded diagram is a diagram or picture that shows the relationship or order of assembly of various parts.</li> <li>• That pattern pieces can be used to model and refine different design ideas</li> <li>• That computer-aided design is a process that allows us to digitally create 2D drawings or 3D models</li> </ul>

## SKILLS PROGRESSION MAP FOR DESIGN

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Explain what ideas are</li> <li>• Describe they want to do</li> <li>• Explain what their product is for</li> <li>• Explain their product will work</li> <li>• Use pictures and words to plan</li> <li>• Follow a simple design criterion</li> <li>• Look at similar existing products</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Have their own ideas for a product and plan what to do next</li> <li>• Explain what they want to do and describe how they will do it</li> <li>• Explain the purpose of the product</li> <li>• Explain how their product will work</li> <li>• Explain how the product is suitable for the user</li> <li>• Create a design using pictures, words and diagrams</li> <li>• Design products for the individual and others following a design criterion</li> <li>• Choose the best tools and materials, and give reasons for their choices</li> <li>• Use their knowledge of existing products to produce individual ideas</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Create a design that meets a range of requirements</li> <li>• Explain the purpose of their product</li> <li>• Follow a given design criteria</li> <li>• Create a product</li> <li>• Create a plan with shows the other, equipment and tools they will use</li> <li>• Accurately label a sketch</li> <li>• Make design decisions</li> <li>• Explain what a prototype is</li> <li>• Design a prototype</li> <li>• Explain how the product will work</li> <li>• Use computers to show designs (with support)</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Use research to design their own ideas</li> <li>• Show their design meets a range of requirements and is fit for purpose</li> <li>• Have at least one idea about how to create a product and suggest improvements for their design</li> <li>• Produce a plan and explain it to others</li> <li>• Say how realistic their plan is</li> <li>• Make an annotated sketch of their design</li> <li>• Make and explain their design decisions considering the resources they have available</li> <li>• Explain how their product will work</li> <li>• Design a prototype</li> <li>• Begin to use computers to show their design</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Use the internet for research and design ideas</li> <li>• Take a user's views into account when designing</li> <li>• Begin to consider the needs/wants of the user when designing and ensure their product is fit for purpose</li> <li>• Create their own design criteria</li> <li>• Have a range of ideas</li> <li>• Produce a logical, realistic plan and explain it to others</li> <li>• Use planning and annotated sketches</li> <li>• Make design decisions considering time and resources</li> <li>• Clearly explain how parts of a product will work</li> <li>• Model and refine design ideas by making prototypes and using pattern pieces (with support)</li> <li>• Use computer-aided designs</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Draw on market research to inform their design</li> <li>• Take a user's needs, wants and requirements into account</li> <li>• Identify features of their design that will appeal to the user</li> <li>• Create their own design criteria and specification</li> <li>• Create innovative design ideas</li> <li>• Follow and refine a logical plan</li> <li>• Use annotated sketches, cross-sectional planning and exploded diagrams</li> <li>• Make design decisions, considering the resources and cost</li> <li>• Clearly explain how parts of a product will work and how it is fit for purpose</li> <li>• Independently model and refine design ideas by making prototypes and using pattern pieces</li> <li>• Use computer-aided designs</li> </ul>

## VOCABULARY PROGRESSION MAP FOR DESIGN

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Ideas Product Design criteria Existing</p>	<p>Purpose Suitable User Diagram Tools</p>	<p>Requirements Equipment Sketch Prototype</p>	<p>Research Annotated sketch Realistic</p>	<p>Questionnaire Fit for purpose Logical Computer-aided design Pattern pieces</p>	<p>Market research Individual needs Features Specification Exploded design Pattern pieces</p>



# Make

Curriculum Link with Science: Properties of materials (all year groups), Maths: Measurements (all year groups).

## KNOWLEDGE PROGRESSION MAP FOR MAKE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That an intention is why the customer will buy the product</li> <li>That specific tools and equipment can be used to cut, join and finish</li> <li>That the measuring, marking out and cutting process is needed (with support)</li> <li>That certain materials are available</li> <li>That specific finishing techniques will make a product look good</li> <li>That a safe environment is important</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they are making a product and how it fits the purpose</li> <li>That there are different ways to join materials together. Such as; gluing, sewing and screwing.</li> <li>That measuring, mrking out and cutting needs to be accurate, with support</li> <li>That certain tools do certain jobs</li> <li>That different materials have different characteristics. Such as metal is tough, felt is soft and cardboard is stiff</li> <li>That using finishing techniques make a product look good</li> <li>That a safe environment is important</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That tools and equipment should be used accurately</li> <li>That certain materials are appropriate for their product</li> <li>That a plan can be created to make their product</li> <li>That they can work through a plan whilst making a product</li> <li>That some materials will be better than others, depending on their product</li> <li>That measuring, marking out and cutting needs to be accurate</li> <li>That they can assemble, join and combine materials</li> <li>That they can use a range of finishing techniques</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That tools and equipment use required techniques when making products</li> <li>That the features of materials make them fit for purpose</li> <li>That a plan can be created to make their product</li> <li>That good quality means of a high standard</li> <li>That they can measure, mark out and cut when creating a product, with some accuracy</li> <li>That they can assemble, join and combine materials and components, with some accuracy</li> <li>That they can use a range of finishing techniques</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That the process of using selected tools and equipment needs to be precise</li> <li>That they will need to produce a suitable list of tools, equipment or materials needed to make a product</li> <li>That materials have certain functions</li> <li>That they can create a detailed step-by-step plan to follow</li> <li>That a product will need to appeal to an audience</li> <li>That they can measure, mark out and cut accurately when making a product</li> <li>That they can assemble, join and combine different materials and components accurately</li> <li>That some techniques involve a small number of steps</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That the process of using selected tools and equipment needs to be precise and accurate</li> <li>That constraint means limitations por restrictions.</li> <li>That materials have different functionalities and aesthetics</li> <li>That they can adapt a step-by-step plan when making a product</li> <li>That a product would need to appeal to an audience</li> <li>That they can make changes to improve the quality of a product, if needed</li> <li>That they can measure, mark out and cut accurately when making a product</li> <li>That they can assemble, join and combine different materials and components accurately</li> <li>That some techniques involve any number of steps</li> </ul>

## SKILLS PROGRESSION MAP FOR MAKE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain what they are making and why</li> <li>Select tools and equipment to measure</li> <li>Select tools and equipment to join</li> <li>Select tools and equipment to finish</li> <li>Measure, mark out and cut with support</li> <li>Choose suitable materials and explain why they have chosen them</li> <li>Use finishing techniques to make a product look good</li> <li>Work in a safe manner</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain what they are making and why it fits the purpose</li> <li>Join materials in different ways</li> <li>To measure, mark out and cut with support</li> <li>Describe the tools I am using and why</li> <li>Choose suitable materials and explain why I have chosen them, depending on their characteristics</li> <li>Use finishing techniques to make a product look good</li> <li>Work in a safe manner</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Select suitable tools and equipment and explain why they have chosen them</li> <li>Begin to use suitable tools and equipment accurately</li> <li>Select suitable materials that are fit for purpose</li> <li>Work through a plan in order</li> <li>Consider how good a product will be</li> <li>Begin to measure, mark out, cut and shape materials with some accuracy</li> <li>Begin to assemble, join and combine materials with some accuracy</li> <li>Begin to apply a range of finishing techniques with some accuracy</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Select suitable tools and equipment and explain their choices in relation to the required techniques</li> <li>Select appropriate materials that are fit for purpose and explain their choices</li> <li>Work through a plan in order</li> <li>Identify if their product is good quality</li> <li>Explain why their product is good quality</li> <li>Measure, mark out, cut and shape materials with some accuracy</li> <li>Assemble, join and combine materials with some accuracy</li> <li>Begin to apply a range of finishing techniques with some accuracy</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Use selected tools and equipment with a good level of precision</li> <li>Produce a suitable list of tools, equipment or materials needed</li> <li>Identify materials have certain functions</li> <li>Create a detailed step by step plan</li> <li>Follow a detailed step by step plan</li> <li>Identify their intended audience and how their product could appeal to them</li> <li>Measure, mark out and cut accurately</li> <li>Assemble, join and combine materials and components accurately</li> <li>Use some techniques that involve a small number of steps</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Use selected tools and equipment precisely</li> <li>Produce a suitable list of tools, equipment and material needed, considering constraints</li> <li>Select appropriate materials that are fit for purpose, explaining their choices and considering the functionality and aesthetics</li> <li>Create, follow and adapt a detailed step-by-step plan</li> <li>Explain how their product will appeal to an audience and make changes to improve the quality</li> <li>Measure, mark out and cut accurately</li> <li>Assemble, join and combine materials and components accurately</li> <li>Use some techniques that involve any number of steps</li> </ul>

## VOCABULARY PROGRESSION MAP FOR MAKE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Tools Equipment Cut Join Finish Measure Mark out Materials Techniques Product Safe manner</p>	<p>Tools Equipment Cut Join Finish Measure Mark out Materials Techniques Product Safe manner Purpose Characteristics</p>	<p>Appropriate Plan Accuracy Assemble Combine</p>	<p>Appropriate Plan Accuracy Assemble Combine Features Quality Components</p>	<p>Precision Suitable Functions Detailed Step-by-step plan Audience Appeal</p>	<p>Precision Suitable Functions Detailed Step-by-step plan Audience Constraints</p>



# Evaluate

## KNOWLEDGE PROGRESSION MAP FOR EVALUATE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That their work links to what they were asked to do</li> <li>That existing products are available, to consider their uses, materials, how they work and where they might be used</li> <li>That they can identify what is good and what is not good about an existing product</li> <li>That certain changes could make a product better</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they can use a design criterion to assess what went well</li> <li>That existing products are available and it is important to considering their uses, materials, how they work and where they might be used</li> <li>That a personal opinion is a belief or judgment that is not proof or certain</li> <li>That they can evaluate how good existing products are</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they can use a design criterion to assess what went well</li> <li>That evaluating existing products helps us to consider how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>That products are designed by certain people, in certain locations</li> <li>That some inventors, designers, engineers and manufacturers created group-breaking products. Such as; iPhone (Apple).</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they can evaluate their product against the design criteria</li> <li>There they can use a range of ideas to change a design</li> <li>That they can begin to evaluate existing products, considering how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>That products are designed by certain people, in certain locations</li> <li>That reused means to use again</li> <li>That recycled means something that can be turned into a reusable material.</li> <li>That materials can be reused and recycled. Including; plastic, glass and paper.</li> <li>Such as; lightbulb (Thomas Edison), iPhone (Apple) and the phone (Alexander Graham Bell).</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they can evaluate the quality of their product against a design criterion</li> <li>That specification means a detailed description of the design and materials used to make a product.</li> <li>That appearance means what something looks like and why this is important</li> <li>That there is a process to test a final product</li> <li>That they can evaluate existing products, considering how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>That different products can cost varied prices to make, depending on its materials</li> <li>That innovative products are new products that are created and released</li> <li>That sustainable means that it can be maintained</li> <li>That some inventors, designers, engineers and manufacturers created group-breaking products. Such as; lightbulb (Thomas Edison), computers (Charles Babbage), iPhone (Apple) and the phone (Alexander Graham Bell).</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they can evaluate the quality of their product against a design criterion</li> <li>That they can evaluate their own ideas and their finished product against specification, stating if it is fit for purpose</li> <li>That there is a process to test a final product</li> <li>That they can evaluate existing products thoroughly and how</li> <li>That different products can cost varied prices to make, depending on its materials</li> <li>That innovative products are new products that are created and released</li> <li>That sustainable means that it can be maintained</li> <li>That a range of materials that are sustainable. Including plastic, wood and steel.</li> <li>That the impact of some products can go beyond their intended purpose – Mobile phones.</li> <li>About some inventors, designers, engineers and manufacturers of group-breaking products. Such as; lightbulb (Thomas Edison), computers (Charles Babbage), iPhone (Apple) and the phone (Alexander Graham Bell).</li> </ul>

## SKILLS PROGRESSION MAP FOR EVALUATE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Talk about their work, linking it to what they were asked to do</li> <li>• Talk about existing products, considering their uses, materials, how they work and where they might be used</li> <li>• Identify what is good and what isn't good about an existing product</li> <li>• Talk about things that other people have made</li> <li>• Begin to talk about what could make a product better</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Describe what went well, thinking about the design criteria</li> <li>• Talk about existing products are available, considering their uses, materials, how they work and where they might be used</li> <li>• Give their own personal opinion about a product</li> <li>• Evaluate how good existing products are</li> <li>• Talk about what they would do differently if they were to do it again and why</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Refer to the design criteria when designing and making</li> <li>• Use the design criteria to evaluate their finished product</li> <li>• Identify what they would change to make their design better</li> <li>• Evaluate existing products, considering how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>• Begin to understand by whom, when and where products were designed</li> <li>• Talk about some inventors, designers, engineers and manufacturers of group-breaking products.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Refer to the design criteria when designing and making</li> <li>• Use the design criteria to evaluate their finished product</li> <li>• Identify how they could improve their overall design</li> <li>• Evaluate existing products, considering how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>• Research whether products can be reused or recycled</li> <li>• Begin to understand by whom, when and where products were designed</li> <li>• Talk about some inventors, designers, engineers and manufacturers of group-breaking products.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Evaluate the quality of their design while they are designing and making</li> <li>• Evaluate ideas and their finished product against the specification, considering purpose and appearance</li> <li>• Test and evaluate their final design</li> <li>• Evaluate existing products, considering how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>• Research how sustainable materials are</li> <li>• Talk about some inventors, designers, engineers and manufacturers of group-breaking products.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Evaluate the quality of their design while they are designing and making</li> <li>• Keep checking their design is the best it can be</li> <li>• Evaluate ideas and their finished product against the specification, considering purpose and appearance</li> <li>• Test and evaluate their final product: explaining what would improve it and the effect different resources may have had</li> <li>• Evaluate existing products thoroughly, considering how well they have been made, what materials were used, how they have been made, if they work and if they are fit for purpose</li> <li>• Evaluate how much products cost to make and how innovative they are</li> <li>• Research and discuss how sustainable materials are</li> <li>• Consider the impact of products beyond their intended purpose</li> <li>• Talk about some inventors, designers, engineers and manufacturers of group</li> </ul>

## VOCABULARY PROGRESSION MAP FOR EVALUATE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	Existing products Uses Materials Identify	Existing products Uses Materials Identify Design criteria Personal opinion Evaluate	Evaluate Whom Inventors Designers Engineers Manufactures	Reuse Recycled Inventors Designers Engineers Manufactures	Specification Final product Innovative Sustainable Inventors Designers Engineers Manufactures	Specification Thoroughly Innovative Sustainable Inventors Designers Engineers Manufactures



# Technical Knowledge

Curriculum Link with Computing: Algorithms (Y5 & Y6), Science: Properties of materials (all year groups), Science: light (Y3 & Y6)

## KNOWLEDGE PROGRESSION MAP FOR TECHNICAL KNOWLEDGE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That they can measure and join materials with support</li> <li>That specific vocabulary is used to describe materials</li> <li>That there are different ways to make materials stronger, by adding filler materials</li> <li>That they should choose suitable materials, such as wood and steel and plastic.</li> <li>That a wheel is a circular object that revolves on an axle.</li> <li>What an axle is a rod passing through the center of a wheel or wheels.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That we can measure and join materials together</li> <li>That characteristics are features or qualities of an object</li> <li>That materials have different characteristics</li> <li>That there are different ways to join materials</li> <li>That we can roll different materials</li> <li>That we can fold different materials</li> <li>That there are different ways to make materials stronger, by adding filler materials</li> <li>That a lever is a bar for applying force</li> <li>That a slider is a knob or lever that is moved</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That an appropriate material is something that is acceptable for a specific job or roll or situation</li> <li>That materials can be cut</li> <li>That they can make a hole in a material or object</li> <li>That materials can be joined</li> <li>That there are techniques to make strong structures</li> <li>That tools and techniques are appropriate for different product</li> <li>That it is okay to try new or different ideas</li> <li>That simple levers and linkages can be used to create movement</li> <li>That a circuit is a circular line, route or movement that starts and finishes at the same place</li> <li>That the components in a circuit are, such as; wire, bulb, cell and switch</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That it is important to measure carefully to avoid mistakes</li> <li>That it is okay to carry on working on a product even if the original didn't work</li> <li>That materials can be used to make a strong, stiff structures</li> <li>That certain tools and techniques are appropriate</li> <li>That alterations are changes to a product</li> <li>That it is okay to try new or different ideas</li> <li>That simple levers and linkages can be used to create movement</li> <li>That pneumatics are things operated by air or gas under pressure</li> <li>That pneumatics can be used to create movement</li> <li>That the components in a circuit are, such as; wire, bulb, cell and switch</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That it is important to consider the intended use of a product and appearance when selecting materials</li> <li>That their product needs to meet the design criteria</li> <li>That measure accurately is important to ensure precision</li> <li>That it is okay to try new or different ideas</li> <li>That refine means the removing of unwanted elements.</li> <li>That a cam is rotating piece of equipment, that is used for closing and opening valves.</li> <li>That a pulley is a wheel that carries a flexible rope to transmit energy or motion.</li> <li>That a gear is a rotating circular mechanic part (with teeth cut in it) that is used to change the direction of forces.</li> <li>That a switch is a device used to interrupt the flow of electrons in a circuit.</li> <li>That they can program a computer (Micro:bit) to change the environment and control a product</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That it is important select materials carefully, considering the intended use of the product, the aesthetics and functionality.</li> <li>That their product will need to meets the design criteria</li> <li>That they can refine different products</li> <li>That hydraulics are mechanical objects that function through the use of liquid pressure, such as water pressure.</li> <li>That it is okay to try new or different ideas</li> <li>That a cam is rotating piece of equipment, that is used for closing and opening valves. It converts rotational motion into linear motion.</li> <li>That a pulley is a wheel that carries a flexible rope to transmit energy or motion. Often used to lift objects.</li> <li>That a gear is a rotating circular mechanic part (with teeth cut in it) that is used to change the direction of forces with other gears.</li> <li>That alternative circuits can look different</li> <li>That they can program a computer (Micro:bit) to change the environment and control a product</li> </ul>

## SKILLS PROGRESSION MAP FOR TECHNICAL KNOWLEDGE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Measure and join materials with some support</li> <li>• Describe differences in materials</li> <li>• Suggest ways to make materials stronger</li> <li>• Choose suitable materials</li> <li>• Begin to use wheels and axles</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Measure and join materials</li> <li>• Describe some different characteristics of materials</li> <li>• Join materials in different ways</li> <li>• Use joining, rolling or folding to make a product stronger</li> <li>• Use their own ideas to make a product stronger</li> <li>• Begin to understand how to use levers and sliders</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Choose and use appropriate materials</li> <li>• Cut and make holes accurately</li> <li>• Join materials</li> <li>• Begin to make strong structures</li> <li>• Select tools and techniques that are appropriate</li> <li>• Identify how to make a product better after checking it</li> <li>• Begin to try new and different ideas</li> <li>• Use simple levers and linkages to create movement</li> <li>• Name to components in a simple circuit</li> <li>• Create a simple circuit</li> <li>• Identify how to program a computer to control a product with support</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Measure carefully to avoid mistakes</li> <li>• Continue working on product even if the original didn't work</li> <li>• Make a strong, stiff structure</li> <li>• Select most appropriate tools that are appropriate</li> <li>• Explain alterations to their product after checking it</li> <li>• Use levers and linkages to create movement</li> <li>• Use pneumatics to create movement</li> <li>• Use a number of components in a circuit</li> <li>• Program a computer to control a product with support</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Select materials carefully, considering intended use of the product and appearance</li> <li>• Explain how their product meets the design criteria</li> <li>• Measure accurately enough to ensure precision</li> <li>• Ensure their product is strong and fit for purpose</li> <li>• Refine their product after testing</li> <li>• Grow in confidence about trying new or different ideas</li> <li>• Explain what cams, pulleys and gears are</li> <li>• Begin to use cams, pulleys or gears to create movement</li> <li>• Incorporate a switch into a circuit</li> <li>• Confidently use a number of components in a circuit</li> <li>• Begin to be able to program a computer to monitor changes in environment and control product</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>• Select materials carefully, considering the intended use of the product, the aesthetics and functionality.</li> <li>• Identify how their product meets the design criteria</li> <li>• Refine a product after testing, considering aesthetics, functionality and purpose</li> <li>• Explain what hydraulics are</li> <li>• That it is okay to try new or different ideas</li> <li>• Use cams, pulleys or gears to create movement</li> <li>• Use different types of circuits</li> <li>• Think of ways in which adding a circuit would improve a product</li> <li>• How to program a computer to change the environment and control a product</li> </ul>

## VOCABULARY PROGRESSION MAP FOR TECHNICAL KNOWLEDGE

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Measure Join Differences Materials Stronger Suitable Wheels Axles</p>	<p>Measure Join Materials Characteristics Rolling Folding Stronger Levels Sliders</p>	<p>Appropriate Structure Techniques Levers Linkages Components Circuit Wire Bulb</p>	<p>Original Alterations Levers Linkages pneumatics Circuit Wire Bulb Buzzer</p>	<p>Precision Refine Cam Pulley Gear Circuit Wire Bulb Buzzer Switch</p>	<p>Aesthetics Functionality Hydraulics Cam Pulley Gear Circuit Wire Bulb Buzzer Switch</p>



# Nutrition and Healthy Eating

Curriculum Link with Science: Animals including humans (all year groups), PE: Healthy Lifestyles (all year groups), Geography: Locational Knowledge (all year groups)

## KNOWLEDGE PROGRESSION MAP FOR NUTRITION AND HEALTHY EATING

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• What a texture</li> <li>• That hands need to be washed thoroughly</li> <li>• That surfaces need to be cleaned thoroughly</li> <li>• That there are different ways to decorate food</li> <li>• That some food comes from (animal or plant)</li> <li>• That there are different food groups</li> <li>• That certain food and vegetables are healthy because they provide nutrients</li> <li>• That there is a process to cut food safely, with support</li> <li>• That there is a process to peel food safely, with support</li> <li>• That there is a process to grate food safely, with support</li> <li>• That ingredients are needed to make a simple coleslaw. These include; cabbage, carrots, onion, vinegar, coriander, chives, mustard and mayonnaise.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That hygiene is conditions put in place to provide cleanliness.</li> <li>• That wiping sides, washing equipment and washing hands makes a kitchen hygienic</li> <li>• That different ingredients have different properties</li> <li>• That a varied diet is important</li> <li>• That different food comes from a series of places (animals, underground etc)</li> <li>• That food can be farmed</li> <li>• That food can be home grown</li> <li>• That food can be caught</li> <li>• That the eat well plate highlights what a balanced diet looks like</li> <li>• That the five food groups are, protein, dairy, carbohydrates, fruit and vegetables and oils</li> <li>• That 'five a day' means five pieces of fruit or vegetables consumed a day</li> <li>• That it is important to cut food safely and to do so with increasing confidence</li> <li>• That it is important to peel food safely and to do so with increasing confidence</li> <li>• That it is important to grate food safely and to do so with increasing confidence</li> <li>• That ingredients are needed to make a simple salad. These include; olive oil, vinegar, beetroot, cabbage and chopped pepper.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That food is grown, reared and caught in the UK, Europe and the wider world</li> <li>• That there are steps to follow when prepare savoury dishes, with support</li> <li>• That savoury dishes need to be cooked safely and hygienically including, where appropriate, the use of a heat source, with support</li> <li>• That a range of techniques such as mixing, spreading, kneading and baking can be used, with support</li> <li>• That a healthy diet is made up from a variety and balance of different food and drink ('The Eat well plate') with support</li> <li>• That to be active and healthy, food and drink are needed to provide energy for the body, with support</li> <li>• That a recipe will need to be followed to prepare a dish</li> <li>• That several ingredients are needed to make scones. Including; butter, self-raising flour, baking powder, caster sugar, egg and milk</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That food is grown, reared and caught in the UK, Europe and the wider world</li> <li>• That there are steps to follow when prepare savoury dishes</li> <li>• That savoury dishes need to be cooked safely and hygienically including, where appropriate, the use of a heat source.</li> <li>• That a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking</li> <li>• That a healthy diet is made up from a variety and balance of different food and drink ('The Eat well plate')</li> <li>• That to be active and healthy, food and drink are needed to provide energy for the body</li> <li>• That a recipe can be adapted</li> </ul> <p>That the ingredients needed to make bread are flour, salt, yeast and water</p>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• The basic principles of a healthy and varied diet to prepare dishes</li> <li>• That different food comes from a variety of places</li> <li>• That seasons may affect the food available</li> <li>• That food can be processed into ingredients that can then be eaten or used in cooking</li> <li>• That different food and drink contain nutrients, water and fibre</li> <li>• That certain equipment will be needed to create a dish, with support</li> <li>• That specific ingredients will be needed to make soup, with support</li> <li>• That a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking may be needed to construct a dish</li> <li>• That a step-by-step method will need to be followed to write a recipe</li> <li>• That the ingredients needed to make soup are; onion, tomatoes, carrot, celery, olive oil, tomato puree, sugar and bay leaves.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>• That specific equipment will need to be used</li> <li>• That certain ingredients will need to be used</li> <li>• That it is important to make their product look attractive</li> <li>• That there is a process to grow plants to use in cooking</li> <li>• Where food comes from.</li> <li>• That different food and drink contain different substances</li> <li>• That a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking may be needed to construct a dish</li> <li>• That a recipe is needs to include the correct quantities</li> <li>• That it is possible to adapt a recipe</li> <li>• That it is important to work to a timescale</li> <li>• That a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking may be needed to construct a dish</li> <li>• That a step-by-step method will need to be followed to write a recipe</li> <li>• What ingredients they will need to make their meal.</li> </ul>

## SKILLS PROGRESSION MAP FOR NUTRITION AND HEALTHY EATING

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Describe textures</li> <li>Wash their hands thoroughly</li> <li>Clean surfaces thoroughly</li> <li>Think of interesting ways to decorate food</li> <li>Identify different food groups</li> <li>Explain why food and vegetables are healthy</li> <li>Cut food safely, with support</li> <li>Peel food safely, with support</li> <li>Grate food safely, with support</li> <li>Make a simple coleslaw</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain what hygiene is</li> <li>Explain makes a kitchen hygienic</li> <li>Identify the properties of ingredients</li> <li>Explain the importance of a varied diet</li> <li>Identify where food comes from (animal, underground etc)</li> <li>Explain how food is farmed</li> <li>Explain how food is home grown</li> <li>Explain how food is caught</li> <li>Describe the eat well plate</li> <li>Identify the five food groups and give examples</li> <li>Explain what 'five a day' means</li> <li>Cut food safely, with increasing confidence</li> <li>Peel food safely, with increasing confidence</li> <li>Grate food safely, with increasing confidence</li> <li>Make a salad</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain that food is grown, reared and caught in the UK, Europe and the wider world, with support</li> <li>Prepare savoury dishes safely and hygienically, with support</li> <li>Cook savoury dishes safely and hygienically including, where appropriate, the use of a heat source, with support</li> <li>Use a range of techniques such as mixing, spreading, kneading and baking, with support</li> <li>Explain that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate', with support</li> <li>Explain that to be active and healthy, food and drink are needed to provide energy for the body, with support</li> <li>Follow instructions within a recipe</li> <li>Make scones</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain that food is grown, reared and caught in the UK, Europe and the wider world</li> <li>Prepare savoury dishes safely and hygienically</li> <li>Cook savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>Use a range of techniques with increasing confidence</li> <li>Explain that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'</li> <li>Explain that to be active and healthy, food and drink are needed to provide energy for the body</li> <li>Adapt a recipe</li> <li>Make bread</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain the basic principles of a healthy and varied diet to prepare dishes</li> <li>Identify where most food comes from</li> <li>Explain that seasons may affect the food available</li> <li>Explain how food is processed into ingredients that can be eaten or used in cooking</li> <li>Explain that different food and drink contain nutrients, water and fibre – that are needed for health</li> <li>Select equipment and ingredients</li> <li>Use a range of techniques, confidently</li> <li>Follow a step-by-step method carefully to write recipe</li> <li>Make soup</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain the basic principles of a healthy and varied diet to prepare dishes</li> <li>Identify where most food comes from</li> <li>Explain that seasons may affect the food available</li> <li>Explain how food is processed into ingredients that can be eaten or used in cooking</li> <li>Select equipment and ingredients</li> <li>Use a range of techniques confidently</li> <li>Make their product look attractive</li> <li>Follow a recipe, including using the correct quantities of each ingredient</li> <li>Adapt a recipe based on research</li> <li>Work to a given timescale</li> <li>Make a three-course meal</li> </ul>

## VOCABULARY PROGRESSION MAP FOR NUTRITION AND HEALTHY EATING

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Texture Wash Clean Surfaces Food Animal Plant Vegetables Cut Peel Grate</p>	<p>Hygiene Ingredients Importance Varied diet Home grown Caught Famed Eat well plate Five a day</p>	<p>Grown Reared Caught UK/Europe/Wider World Savoury dishes Heat source Kneading Baking Active Energy Recipe</p>	<p>Grown Reared Caught UK/Europe/Wider World Savoury dishes Heat source Kneading Baking Active Energy Adapt</p>	<p>Principles Seasons Processed Nutrients Water Fibre Techniques</p>	<p>Principles Seasons Processed Nutrients Water Fibre Techniques Timescale</p>

# STICKY KNOWLEDGE FOR NUTRITION AND HEALTHY EATING

These questions are used in ASPIRE events, as our throwback links and for our unit assessments

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<ul style="list-style-type: none"> <li>• <b>What is it important to do before preparing food?</b> It is important to wash your hands.</li> <li>• <b>Where do most foods come from?</b> Animals or plants.</li> <li>• <b>What ingredients do we need to make coleslaw?</b> Cabbage, Carrots, Onion, Vinegar, Coriander, Chives, Mustard and Mayonnaise.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What does hygiene mean?</b> Hygiene is the processes put in place to provide cleanliness.</li> <li>• <b>Can you give some examples of good hygiene?</b> Wiping sides, washing hands and washing equipment.</li> <li>• <b>Where do we get different foods from?</b> Farming, home growing, caught.</li> <li>• <b>What techniques do we use to prepare the ingredients for a salad?</b> Wash, chop, peel and grate.</li> <li>• <b>What is meant by 'Five a day'?</b> Five pieces of fruit or vegetables per day to keep healthy.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Where is food grown, reared and farmed?</b> In the UK, Europe and the wider world.</li> <li>• <b>What processes should you follow when cooking a savory dish?</b> Mixing, spreading, kneading, and baking can be used.</li> <li>• <b>What is a balanced diet?</b> A diet that contains a variety healthy food linking to the 'Eat Well Plate'.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What are the five food groups?</b> Carbohydrates, fruit and vegetables, proteins, dairy and oils.</li> <li>• <b>What does healthy food and drink provide when been active?</b> Energy.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What factor can influence the types of food produced?</b> The seasons.</li> <li>• <b>What do foods contain?</b> Nutrients, fiber and water.</li> <li>• <b>What do you need to follow when writing a recipe?</b> The step-by-step method.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Why is it important that a product looks attractive?</b> So the consumer will buy it.</li> <li>• <b>What is it important to do when following a recipe?</b> Measure out the right quantities to obtain an expected taste and result.</li> <li>• <b>What is it important to work to when cooking meal/recipe?</b> Accurate timescales.</li> </ul>



# Construction

Curriculum Link with Science: Properties of materials (all year groups), Maths: measurements (all year groups)

## KNOWLEDGE PROGRESSION MAP FOR CONSTRUCTION

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That a wheel is a circular object that revolves on an axle and is fixed below a vehicle or object to help it move easily.</li> <li>That revolve means to turn around.</li> <li>That an axle is a rod that connects two wheels together and supports the weight of the object.</li> <li>That a vehicle is something that is used for transporting objects.</li> <li>The properties of paper, wood, card, metal and plastic.</li> <li>That materials have properties that are suited to different uses.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That a fairy tale is a type of non-fiction story.</li> <li>That a slider moves backwards and forwards along a straight line.</li> <li>That a lever is a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That magnetic toys use magnets to join or fix things together.</li> <li>That there are a wide range of magnetic toys available on the market.</li> <li>That different magnetic toys have different purposes.</li> <li>A range of techniques to strengthen materials.</li> <li>A range of techniques to attach materials.</li> <li>What step-by-step process they need to follow to make their toy.</li> <li>What resources they will need to make their toy.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That nightlights are used to create a small light source.</li> <li>That there are a wide range of nightlights available on the market.</li> <li>That nightlights all have the same purpose.</li> <li>That nightlights can be different sizes according to the use.</li> <li>A range of techniques to strengthen materials.</li> <li>A range of techniques to attach materials.</li> <li>What step-by-step process they need to follow to make their nightlight.</li> <li>What resources they will need to make their nightlight.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That pneumatics use air pressure to make things move.</li> <li>That there are a wide of everyday appliances/objects that use pneumatics, including tyres and drills.</li> <li>That different objects that use pneumatics have different purposes.</li> <li>A range of techniques to strengthen materials.</li> <li>A range of techniques to use air pressure to make an object move.</li> <li>What step-by-step process they need to follow to make an object that uses pneumatics fit for purpose.</li> <li>What resources they will need to make their functioning object.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That an Anderson shelter was one of the many forms of protection that people used against air raids during World War II.</li> <li>That Anderson shelters were constructed in people's gardens and were buried in the ground halfway and covered over with a thick layer of earth.</li> <li>That sturdy means strongly and solidly built</li> <li>That waterproof means not letting water through</li> </ul>

## SKILLS PROGRESSION MAP FOR CONSTRUCTION

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain how wheels and axles support objects to move.</li> <li>Design a vehicle or object that has wheels.</li> <li>Identify materials that are suitable to be used for wheels and axles.</li> <li>Use tools such as scissors to create a prototype of a working wheel and axle.</li> <li>Use a range of tools and suitable materials to create a working model that uses wheels and axles.</li> <li>Evaluate their project and make changes (as necessary) to improve their work.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Make a fairy tale moving picture that fits their design brief.</li> <li>Use a range of materials such as split pins, lolly pop sticks, card and paper to make a moving fairy tale picture.</li> <li>Make a picture that can move up, down and side to side.</li> <li>Make a picture that will engage younger children.</li> <li>Create a slider on the picture that moves.</li> <li>Create a lever on the picture that moves.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Research what magnetic toys are available.</li> <li>Evaluate existing magnetic toys by conducting product research.</li> <li>Explore a range of strengthening techniques.</li> <li>Explore a range of ways to attach materials to one another.</li> <li>Plan the process of making a magnetic toy.</li> <li>Request the appropriate resources to make the magnetic toy.</li> <li>Work as a team to make a magnetic toy to fit their own design brief.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Research what nightlights are available.</li> <li>Evaluate existing nightlights by conducting product research.</li> <li>Explore a range of strengthening techniques.</li> <li>Explore a range of ways to attach materials together.</li> <li>To select and request appropriate resources to make the nightlight with little guidance.</li> <li>Work as a team to make a nightlight in line with their design brief.</li> <li>Evaluate any issues with their design and adapt them accordingly.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Research what objects use pneumatics.</li> <li>Evaluate existing pneumatic objects by conducting product research.</li> <li>Explore a range of strengthening techniques.</li> <li>Explore a range of ways to attach materials to one another.</li> <li>Plan the process of making an object that uses pneumatics.</li> <li>Request the appropriate resources to make a functioning object that uses pneumatics.</li> <li>Work as a team to use pneumatics to fit their own design brief.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Make an Anderson shelter that fits their design brief</li> <li>Use a range of materials: wood, corrugated card etc to make an Anderson shelter</li> <li>Make an Anderson shelter that is sturdy</li> <li>Make an Anderson shelter that is waterproof</li> </ul>

## VOCABULARY PROGRESSION MAP FOR CONSTRUCTION

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	Wheel Axle Chassis Design Build Join Connect Move Rotate Circle Round Vehicle	Slider Lever Mechanism Split pins Push Pull Pivot Slot Round Straight Curve Backwards Forwards	Attach Magnetic Strengthen Force Product research	Attach Nightlight Strengthen Materials Product research	Pneumatics Strengthen Design Air pressure Construct Evaluate Product research	Anderson shelter Air raids Construct Sturdy Waterproof

## STICKY KNOWLEDGE FOR CONSTRUCTION

These questions are used in ASPIRE events, as our throwback links and for our unit assessments

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<ul style="list-style-type: none"> <li>• <b>What is a wheel?</b> A circular object that revolves on an axel.</li> <li>• <b>What does revolve mean?</b> To turn around.</li> <li>• <b>What is an axel?</b> A rod that connects two wheels.</li> <li>• <b>What is a vehicle?</b> Something that is used for transporting objects.</li> <li>• <b>What are properties?</b> Elements and features of an object that are suited to different uses.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is a fairy-tale?</b> A type of fictional story.</li> <li>• <b>Which way does a slider move?</b> Backwards and forwards in a straight line.</li> <li>• <b>What is a lever?</b> A rigid bar resting on a pivot used to move objects.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is the purpose of magnetic toys?</b> To use magnets to join or fix things together.</li> <li>• <b>What is a design brief?</b> A document or set of instructions for a project.</li> <li>• <b>What is the meaning of an evaluation?</b> Judging the quality, value or relevance of something you or someone else has done.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What are night lights used for?</b> To provide a small light source.</li> <li>• <b>What do you need to follow when constructing a product, such as a night light?</b> The step-by-step method.</li> <li>• <b>What is used to power your night light?</b> A battery.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>How to pneumatics work?</b> By using air pressure to make things move.</li> <li>• <b>What every day appliances can you name that use pneumatics?</b> Tyres and drills (examples may vary).</li> <li>• <b>What is a pully?</b> A simple mechanism which is useful for lifting things.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is an Anderson shelter?</b> A form of protection that people used in WW2.</li> <li>• <b>Where were Anderson shelters constructed?</b> They were constructed in people's gardens and were buried in the ground.</li> <li>• <b>What properties did Anderson shelters need to have?</b> To be sturdy and strong.</li> <li>• <b>What is meant by the term waterproof?</b> Not letting water through.</li> </ul>



# Textiles

Curriculum Link with Maths: Measurements (all year groups).

## KNOWLEDGE PROGRESSION MAP FOR TEXTILES

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That a textile is cloth or cloth that is made from weaving, knitting or felting.</li> <li>That textile fabric can be made from man-made or natural fibres.</li> <li>That sewing is the process of joining 2 pieces of fabric together with a needle and thread.</li> <li>That textiles can be joined by sewing.</li> <li>That a running stitch is a basic stitch that is formed in short straight lines by passing the needle in and out of the fabric at regular intervals.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>Hand puppets can be used to act out stories, characters, and scenes from books, which encourages imaginative play and creative thinking.</li> <li>That the running stitch is a simple up and down stitch you form by moving the needle in and out of the fabric.</li> <li>The over stitch goes over two pieces of materials to join them.</li> <li>That buttons can be used as decoration.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That Ancient Egypt was a civilization that existed between 3100 BC and 30 BC.</li> <li>That an Egyptian collar (called usekh or wesekh) was a personal decoration that lay around and over a person's neck and shoulders.</li> <li>That Egyptian collars were highly decorative.</li> <li>That running stitch is a straight line of stitches that do not overlap.</li> <li>That cross stitch is a two-stitch style of sewing that forms a cross pattern.</li> <li>That applique is where small pieces of cloth are sewn or stuck onto a larger piece.</li> <li>That to embellish something means to add decorative details or features to something.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>A Christmas stocking is an empty sock or sock-shaped bag that is hung on Saint Nicholas Day or Christmas Eve so that Saint Nicholas can fill it with small toys, candy, fruit, coins or small gifts.</li> <li>That a Christmas stocking is a personal decoration that many people have in their homes.</li> <li>That running stitch is a straight line of stitches that do not overlap.</li> <li>That a back stitch is sewn one stitch length backwards on the front side and two stitch lengths forwards on the reverse side to form a solid line of stitching on both sides.</li> <li>That applique is where you sew one piece of fabric on top of another.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That Ancient Greek civilization was a civilization that existed between 800 BC and 146 BC.</li> <li>That an Ancient Greek Mosaic was a personal decoration that was used in houses of the rich and public buildings.</li> <li>That mosaics were highly intricate designs for the time.</li> <li>That running stitch is a straight line of stitches that do not overlap.</li> <li>That cross stitch is a two-stitch style of sewing that forms a cross pattern.</li> <li>That back stitch is where the stitch goes backwards on the top side of the fabric and doubles forward on the bottom, coming out farther in front, then repeats.</li> <li>The backstitch is a very tight and secure stitch, and also looks very neat.</li> <li>That overcast stitch allows thread to wrap around the edge of the fabric to prevent unraveling</li> <li>That cross stitch creates a zig-zag series of X's on the underside of a piece of fabric.</li> <li>That applique is where small pieces of cloth are sewn or stuck onto a larger piece.</li> </ul>	<p>Children will know:</p> <ul style="list-style-type: none"> <li>That a pencil case is a small container for pencils, pens, and other writing equipment.</li> <li>That the running stitch is hand sewing's version of the straight stitch in machine sewing. It's a simple up and down stitch that you form by moving the needle in and out of the fabric to form regularly sized and even stitches</li> <li>That back stitch is where the stitch goes backwards on the top side of the fabric and doubles forward on the bottom, coming out farther in front, then repeats.</li> <li>The backstitch is a very tight and secure stitch, and also looks very neat.</li> <li>That overcast stitch allows thread to wrap around the edge of the fabric to prevent unraveling</li> <li>That cross stitch creates a zig-zag series of X's on the underside of a piece of fabric.</li> <li>That a zip is used to fasten something together</li> </ul>

## SKILLS PROGRESSION MAP FOR TEXTILES

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Identify cotton, felt, wool, denim and leather fabrics.</li> <li>Explain whether a fabric is made from man-made or natural fibres.</li> <li>Cut a length of thread and pass it through the eye of a needle with support.</li> <li>Fasten a knot in the end of a piece of thread with support.</li> <li>Create a running stitch on a sewing frame with support.</li> <li>Securely hold a piece of fabric with one hand whilst they pass a needle through the fabric with the other hand.</li> <li>Sew a short length of running stitch whilst holding the fabric securely – with support.</li> <li>Create a design for a fabric collage that includes a section of running stitch.</li> <li>Evaluate their project and make changes (as necessary) to improve their work.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Make a hand puppet that fits their design brief.</li> <li>Use a range of materials to make a hand puppet such as felt, binca squares and buttons.</li> <li>Use a running stitch and an over stitch on their product.</li> <li>Join two pieces of material together.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain who the Egyptians were.</li> <li>Explain what Egyptians collars were.</li> <li>Research examples of Egyptian collars.</li> <li>Draw a shape onto felt for their collar.</li> <li>Cut out the shape from felt.</li> <li>Use running stitch independently as a decoration.</li> <li>Use cross stitch independently as a decoration.</li> <li>Use applique or embellishment to add detail to a collar.</li> <li>Attach a ribbon, using stitches, to the collar to fasten around the neck.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain what a Christmas stocking is.</li> <li>Explain the purpose of a Christmas stocking.</li> <li>To draw a shape onto felt for their stocking.</li> <li>Cut out the shape from felt.</li> <li>Use running stitch independently to join two pieces of felt together.</li> <li>Use back stitch with some support to embellish their stocking.</li> <li>Attach a ribbon, using stitches to the stocking to enable it to hang from a fireplace or door handle.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Explain who the Ancient Greeks were.</li> <li>Explain what mosaics are.</li> <li>Research examples of Ancient Greek tapestry.</li> <li>Draw a design of an appropriate mosaic.</li> <li>Cut out materials that can be used to complete a section of tapestry; felt, tile, paper.</li> <li>Use running stitch, back stitch, over stitch or cross stitch to independently join the mosaic onto a fabric, as a decoration.</li> <li>Use cross stitch independently as a decoration.</li> <li>Use applique to add detail to a cloth.</li> </ul>	<p>Children will be able to:</p> <ul style="list-style-type: none"> <li>Make a pencil case that fits their design brief</li> <li>Use a range of materials to make a pencil case</li> <li>Use a range of stitches</li> <li>Attach a zip to secure and close their pencil case</li> </ul>

## VOCABULARY PROGRESSION MAP FOR TEXTILES

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	Sew running stich needle Thread Stitch Fabric Material Natural man-made fibres wool Cotton Silk Leather Felt Join Connect Attach	Joining and finishing techniques Tools Fabrics and components Template Pattern pieces Mark out Join Decorate Finish Running stitch Over stitch	Egyptian collar (usekh or wesek) Running stitch Cross stitch Applique Embellishment	Stocking Running stitch Back stitch Applique Embellishment	Running stitch Back stitch Overcast stitch Cross stitch Applique Ancient Mosaics Intricate Tapestry	Pencil case Running stitch Back stitch Overcast stitch Cross stitch Zip

## STICKY KNOWLEDGE FOR TEXTILES

These questions are used in ASPIRE events, as our throwback links and for our unit assessments

EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<ul style="list-style-type: none"> <li>• <b>What is a textile?</b> A fabric or cloth that is made from weaving, knitting or felting.</li> <li>• <b>What types of fabrics are available?</b> Man-made or natural.</li> <li>• <b>What is sewing?</b> The process of joining two fabrics together with a needle and thread.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is running stitch?</b> A stitch that runs in a straight line in regular intervals.</li> <li>• <b>What is over stitch?</b> A stitch that goes over two pieces of material to join them together.</li> <li>• <b>What can be used to decorate your finger puppets?</b> Buttons.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is an Egyptian collar?</b> A personalized decoration that lay over and around a person's neck and shoulders.</li> <li>• <b>What is applique?</b> This is where small pieces of fabric are sewn or stuck on to a longer piece of fabric.</li> <li>• <b>What does it mean to embellish something?</b> To add decorative details or features to something.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is a Christmas stocking?</b> An empty sock shaped bag that is hung on Christmas Day or Christmas Eve.</li> <li>• <b>What is back stitch?</b> One length stitched backwards on the front side and two stitched lengths forwards on the reverse side to form a solid line of stitching.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What did the Ancient Greeks use tapestry for?</b> Decoration.</li> <li>• <b>What three stitches can be used to create our Greek tapestry?</b> Over-stitch, Running stitch and Back stitch or Cross stitch.</li> <li>• <b>What pattern does repeat Cross stitch create?</b> Zig-Zag pattern.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>What is the purpose of a pencil case?</b> To hold a series of stationery and equipment</li> <li>• <b>Why is using over stitch useful when creating a pencil case?</b> Over stitch allows the thread to wrap around the edge of the fabric to prevent unraveling.</li> <li>• <b>Describe the features of back stitch.</b> The backstitch is a very tight and secure stitch, and also looks very neat.</li> <li>• <b>What is a zip used for?</b> To fasten fabrics or materials together.</li> </ul>

## DESIGN & TECHNOLOGY ENRICHMENT

TERM	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
AUTUMN							
SPRING			<p><b>Year 2 chef visit to make salad:</b></p> <ul style="list-style-type: none"> <li>•To explain what hygiene is.</li> <li>•To describe the eat well plate</li> <li>•To identify the five food groups and give examples.</li> <li>•To explain what 'five a day' means.</li> <li>•To cut food safely, with increasing confidence.</li> <li>•To peel food safely, with increasing confidence.</li> <li>• To grate food safely, with increasing confidence</li> <li>•To make a salad.</li> </ul>				
SUMMER						<p><b>Year 5 chef visit to make soup and discuss nutrition:</b></p> <ul style="list-style-type: none"> <li>• To explain the importance of food hygiene and safety when preparing and cooking hot meals, including cross-contamination, temperature control, and cleaning routines.</li> <li>• To analyse and classify ingredients in a soup recipe according to the five food groups, and explain how each contributes to nutrition and health (e.g. protein builds muscles, vitamins support the immune system).</li> <li>• To use a range of knife skills safely and accurately to prepare ingredients (e.g. chopping vegetables evenly for cooking).</li> <li>• To select and prepare ingredients appropriately, including peeling, chopping, and trimming safely and efficiently for cooking.</li> </ul>	

- To use a variety of kitchen tools safely and effectively, such as graters, peelers, and blenders, demonstrating good control and awareness of safety.
- To follow a recipe to make a hot dish (soup), combining ingredients, using heat safely, and evaluating the taste, texture, and nutritional value of the finished product.

**Year 5 Pneumatics visit to Kelham Island Museum:**

- To explain what pneumatics, gears, pulleys, and levers are and how they are used to make work easier or to create movement.
- To observe and describe how simple and complex machines work.
- To investigate how air can be used to create force and motion.
- To describe how gears and pulleys can change the speed, direction, or force of movement in machinery.
- To identify how levers help lift or move objects with less effort and explain the mechanical advantage they provide.
- To explain how knowledge of pneumatics, gears, and levers has contributed to the development of modern machines and engineering design.