BECOMING REFLECTIVE, INDEPENDENT & ASPIRATIONAL LEARNERS FOR LIFE

Immersion Curriculum: Design and Technology Y1/2

Cycle A

At Amberley, each unit of design and technology contains the key elements of: mastering practical skills, design, make, evaluate and improve, and taking inspiration from design though a topic of either food, materials, textiles, electrical and electronics, computing, construction and mechanics.

Intent:

For all learners to…

- work with tools, equipment, materials and components to make quality products
- making creative and informed choices on the way
- pupils to critique, evaluate and test their ideas and products and works of others
- foster enjoyment in designing and making things for a specific purpose
- pupils to have progressive development of knowledge and skills of the DT curriculum
- pupils learn to take managed risks becoming resourceful and innovative learners

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<tr><th colspan="2">Focus</th><th>Milestone for end of Key Stage 1
(Year 2)</th><th>National Curriculum Objectives:
By the end of the Key Stage 1</th></tr>
<tr><td colspan="2">Food</td><td rowspan="2">• Cut, peel or grate ingredients safely and hygienically.
• Measure or weigh using measuring cups or electronic scales.
• Assemble or cook ingredients.</td><td rowspan="2">Pupils should be taught to:
<u>Design</u>
• Design purposeful, functional, appealing products for themselves and other users based on design criteria
• Generate, develop, model and communicate their ideas through talking, drawing template, mock ups and where appropriate, information and communication
<u>Make</u>
• 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
<u>Evaluate</u>
• 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

<u>Links to PSHCE curriculum</u>
• What constitutes a healthy diet (including understanding calories and other nutritional content)
• The principles of planning and preparing a range of healthy meals</td></tr>
<tr><td>Duration</td><td>Cycle</td></tr>
<tr><td>Term 2
1 week</td><td>A</td><td>Ongoing Milestones:

Design, make, evaluate and improve
• Design products that have a clear purpose and an intended user
• Make products, refining the design as work progresses
• Use software to design

Take inspiration from design throughout history
• Explore objects and designs to identify likes and dislikes of the designs.
• Suggest improvements to existing designs.
• Explore how products have been created</td><td>Key Vocabulary for the Year:

Weigh, scales, raw, knives, grams, kilograms, millilitres, litres, cut, peel, great, ingredients, measure, hygienically, assemble, cook, prototype, design, prototype, evaluate.</td></tr>
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(Taught through outdoor learning)</td><td rowspan="2">• Cut materials safely using tools provided.
• Measure and mark out to the nearest centimetre.
• Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
• Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</td><td rowspan="2">Pupils should be taught to:
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<u>Technical knowledge</u>
• 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.</td></tr>
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Take inspiration from design throughout history
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• Suggest improvements to existing designs.
• Explore how products have been created</td><td>Key Vocabulary for the Year:

Material, measurement, centimetre, metre, tearing, cutting, folding, curling, joining, gluing, hinges, combining, strengthen, design, prototype, evaluate.

Use the correct vocabulary to name tools and component parts (e.g. Screwdriver, bradawl, pulley etc.)</td></tr>
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<tr><th colspan="2">Focus</th><th>Milestone for end of Key Stage 1
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Take inspiration from design throughout history
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• Suggest improvements to existing designs.
• Explore how products have been created</td><td>Key Vocabulary for the Year:

Materials, drilling, screwing, gluing, nailing, material, strengthen, design, prototype, evaluate.

Use the correct vocabulary to name tools and component parts (e.g. Screwdriver, bradawl, pulley etc.)</td></tr>
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<tr><th colspan="2">Focus:</th><th>Milestone for end of Key Stage 1
(Year 2)</th><th>National Curriculum Objectives:
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<tr><td colspan="2">Mechanics
(Taught through outdoor learning)</td><td rowspan="2">• Create products using levers, wheels and winding mechanisms.</td><td rowspan="2">Pupils should be taught to:

<u>Design</u>
• Design purposeful, functional, appealing products for themselves and other users based on design criteria
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<u>Technical knowledge</u>
• 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.</td></tr>
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Design, make, evaluate and improve
• Design products that have a clear purpose and an intended user
• Make products, refining the design as work progresses
• Use software to design
Take inspiration from design throughout history
• Explore objects and designs to identify likes and dislikes of the designs.
• Suggest improvements to existing designs.
• Explore how products have been created</td><td>Key Vocabulary for the Year:

Create, levers, wheels, winding, mechanism, design, prototype, design, evaluate.

Use the correct vocabulary to name tools and component parts (e.g. Screwdriver, bradawl, pulley etc.)</td></tr>
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BECOMING REFLECTIVE, INDEPENDENT & ASPIRATIONAL LEARNERS FOR LIFE

Immersion Curriculum: Design and Technology Y1/2

(Cycle B)

At Amberley, each unit of design and technology contains the key elements of: mastering practical skills, design, make, evaluate and improve, and taking inspiration from design though a topic of either food, materials, textiles, electrical and electronics, computing, construction and mechanics.

Intent:

For all learners to…….

- work with tools, equipment, materials and components to make quality products,
- making creative and informed choices on the way
- pupils to critique, evaluate and test their ideas and products and works of others
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<tr><th colspan="2">Focus</th><th>Milestone for end of Key Stage 1
(Year 2)</th><th>National Curriculum Objectives:
By the end of the Key Stage 1</th></tr>
<tr><td colspan="2">Food:
Bread</td><td rowspan="2">• Cut, peel or grate ingredients safely and hygienically.
• Measure or weigh using measuring cups or electronic scales.
• Assemble or cook ingredients.</td><td rowspan="2">Pupils should be taught to:
<u>Design</u>
• Design purposeful, functional, appealing products for themselves and other users based on design criteria
• Generate, develop, model and communicate their ideas through talking, drawing template, mock ups and where appropriate, information and communication
<u>Make</u>
• 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
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<tr><th>Duration</th><th>Cycle</th></tr>
<tr><td>Term 2
1 week</td><td>B</td><td>Ongoing Milestones:

Design, make, evaluate and improve
• Design products that have a clear purpose and an intended user
• Make products, refining the design as work progresses
• Use software to design

Take inspiration from design throughout history
• Explore objects and designs to identify likes and dislikes of the designs.
• Suggest improvements to existing designs.
• Explore how products have been created</td><td>Key Vocabulary for the Year:

Weigh, scales, raw, knives, grams, kilograms, millilitres, litres, cut, peel, grate, ingredients, measure, hygienically, assemble, cook, prototype, design, prototype, evaluate.</td></tr>
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<tr><th colspan="2">Focus</th><th>Milestone for end of Key Stage 1
(Year 2)</th><th>National Curriculum Objectives:
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<tr><td colspan="2">Materials

(Taught through outdoor learning)</td><td rowspan="2">• Cut materials safely using tools provided.
• Measure and mark out to the nearest centimetre.
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<tr><td>Taught weekly</td><td>B</td><td>Ongoing Milestones:

Design, make, evaluate and improve
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• Make products, refining the design as work progresses
• Use software to design

Take inspiration from design throughout history
• Explore objects and designs to identify likes and dislikes of the designs.
• Suggest improvements to existing designs

Explore how products have been created</td><td>Key Vocabulary for the Year:

Material, measurement, centimetre, metre, tearing, cutting, folding, curling, joining, gluing, hinges, combining, strengthen, design, prototype, evaluate.

Use the correct vocabulary to name tools and component parts (e.g. Screwdriver, bradawl, pulley etc.)</td></tr>
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(Year 2)</th><th>National Curriculum Objectives:
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<tr><td colspan="2">Textiles</td><td rowspan="2">• Shape textiles using templates.
• Join textiles using running stitch.
• Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</td><td rowspan="2">Pupils should be taught to:
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• Design purposeful, functional, appealing products for themselves and other users based on design criteria
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Design, make, evaluate and improve
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Take inspiration from design throughout history
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Textile, shape, template, join, running stitch, colour, decorate, technique, dyeing, printing, design, make, refine, improve, evaluate.</td></tr>
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<tr><td colspan="2">Electricals and electronics</td><td rowspan="2">• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).</td><td rowspan="2">Pupils should be taught to:

Refer to science curriculum</td></tr>
<tr><td>Duration</td><td>Cycle</td></tr>
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Diagnose, battery, device, damage, terminal, design, make, refine, improve, evaluate.</td></tr>
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<tr><td colspan="2">Computing
(Combined within computing curriculum 1.6: We are celebrating – creating a card electronically)</td><td rowspan="2">• Model designs using software.</td><td rowspan="2">Pupils should be taught to:

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<tr><td>Term 6

Taught weekly</td><td>B</td><td>Ongoing Milestones:

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• Make products, refining the design as work progresses
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Take inspiration from design throughout history
• Explore objects and designs to identify likes and dislikes of the designs.
• Suggest improvements to existing designs.
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model, software, design,==keyboard, typing, formatting, mouse, store, retrieve, combine, improvements.</td></tr>
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