Design Technology Overview of Long Term Planning

Current subject leader: Lisa Heritage

Year 1	• Area 1 • Food • PoS 1, 2, 3, 5	• Area 2 • Making a product • PoS 1,2,3,5	• Area 3 • Making a product with textiles • PoS 1,2,3,5	•	•	•
Year 2	• Area 1 • Food • PoS 1,2,3,4,5,	• Area 2 • Making a product with movement • PoS 1,2,3,4,5	• Area 3 • Making a product with textiles • PoS 1,2,3,4,5	•	•	•
Year 3	• Area 1 • Food • PoS 1,2,3,4,5	• Area 2 • Mechanisms • PoS 1,2,3,4,5	• Area 3 • Making a product • PoS 1,2,3,4,5	•	•	•
Year 4	• Area 1 • Textiles • PoS 1,2,3,4,5	• Area 2 • Movement with computer aided design • PoS 1,2,3,4,5	• Area 3 • Making a product with electrics • PoS 1,2,3,4,5	•	•	•
Year 5	• Area 1 • Food • PoS 1,2,3,5	• Area 2 • Making a product • PoS 1,2,3,4,5	• Area 3 • Mechanisms • PoS 1,2,3,4,5	•	•	•
Year 6	• Area 1 • Electronics • ICT control programme • PoS 1,2,3,4,5	• Area 2 • Movement • PoS 1,2,3,4,5	•	•	•	•

Design and Technology Overview of Long Term Planning

Statutory National Curriculum Areas to be covered by the end of the year – Year 1

<table>
<tr><th colspan="2">Design and Technology Year 1. Area 1 - Food</th></tr>
<tr><td><u>Outcomes & Assessment Judgement Based from Level Descriptors</u>

National Curriculum Level 1C
Some children will not have made so much progress & will:
Pupils generate ideas and recognise characteristics of familiar products. They use tools and materials with help, where needed. They talk about their own and other people's work in simple terms

National Curriculum Level 1A
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and recognise characteristics of familiar products. Their plans show that, with help, they can put their ideas into practice. They use pictures and words to describe what they want to do. They explain what they are making and which tools they are using. They use tools and materials with help, where needed. They talk about their own and other people's work in simple terms and describe how a product works.

National Curriculum Level 2C
The AA/AA+ children will have progressed further & will also:
They use pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.</td><td><u>Programme of Study Area</u>
• 1a generate ideas by drawing on their own and other people's experiences.
• 1c talk about their ideas
• 1e communicate their ideas using a variety of methods, including drawing and making models.
• 2b explore the sensory qualities of materials
• 2e use simple finishing techniques to improve the appearance of their product, using a range of equipment
• 2f follow safe procedures for food safety and hygiene.
• 3a talk about their ideas, saying what they like and dislike
• 5a investigating and evaluating a range of familiar products [for example, talking about how they work, and whether they do what they are supposed to do]
• 5b focused practical tasks that develop a range of techniques, skills, processes and knowledge
• 5c design and make assignments using a range of materials, including food.

<u>Key Skills to be delivered during the coverage above</u>
• working with others, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
• Communication.</td></tr>
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Design and Technology Year 1. Area 2 – Making a product

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 1C
Some children will not have made so much progress & will:
Pupils generate ideas and recognise characteristics of familiar products.
They use tools and materials with help, where needed. They talk about their own and other people's work in simple terms

National Curriculum Level 1A
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and recognise characteristics of familiar products. Their plans show that, with help, they can put their ideas into practice. They use pictures and words to describe what they want to do. They explain what they are making and which tools they are using. They use tools and materials with help, where needed. They talk about their own and other people's work in simple terms and describe how a product works.

National Curriculum Level 2c
The AA/AA+ children will have progressed further & will also:
They use pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

Programme of Study Area

- **1a** generate ideas by drawing on their own and other people's experiences**.**
- **1c** talk about their ideas
- **1e** communicate their ideas using a variety of methods, including drawing and making models.
- **2a** select tools, techniques and materials for making their product from a range suggested by the teacher
- **2b** explore the sensory qualities of materials
- **2d** assemble, join and combine materials and components
- **2e** use simple finishing techniques to improve the appearance of their product, using a range of equipment
- **3a** talk about their ideas, saying what they like and dislike
- **5a** investigating and evaluating a range of familiar products [for example, talking about how they work, and whether they do what they are supposed to do]
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, items that can be put together to make products.

Key Skills to be delivered during the coverage above

- working with others, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 1. Area 3 – Making a product with textiles

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 1C
Some children will not have made so much progress & will:
Pupils generate ideas and recognise characteristics of familiar products.
They use tools and materials with help, where needed. They talk about their own and other people's work in simple terms

National Curriculum Level 1A
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and recognise characteristics of familiar products. Their plans show that, with help, they can put their ideas into practice. They use pictures and words to describe what they want to do. They explain what they are making and which tools they are using. They use tools and materials with help, where needed. They talk about their own and other people's work in simple terms and describe how a product works.

National Curriculum Level 2c
The AA/AA+ children will have progressed further & will also:
They use pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

Programme of Study Area

- **1a** generate ideas by drawing on their own and other people's experiences**.**
- **1c** talk about their ideas
- **1e** communicate their ideas using a variety of methods, including drawing and making models.
- **2a** select tools, techniques and materials for making their product from a range suggested by the teacher
- **2b** explore the sensory qualities of materials
- **2d** assemble, join and combine materials and components
- **2e** use simple finishing techniques to improve the appearance of their product, using a range of equipment
- **3a** talk about their ideas, saying what they like and dislike
- **5a** investigating and evaluating a range of familiar products [for example, talking about how they work, and whether they do what they are supposed to do]
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, items that can be put together to make products, and textiles.

Key Skills to be delivered during the coverage above

- working with others, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.

Communication.

Design and Technology Year 2. Area 1 - Food

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 2C
Some children will not have made so much progress & will:
They use pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2B
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2A
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They select appropriate tools, techniques and materials, explaining their choices. They use tools and assemble, join and combine materials and components in a variety of ways. They recognise what they have done well as their work progresses, and suggest things they could do better in the future.

Programme of Study Area

- **1a** generate ideas by drawing on their own and other people's experiences**.**
- **1c** talk about their ideas
- **1d** plan by suggesting what to do next as their ideas develop
- **1e** communicate their ideas using a variety of methods, including drawing and making models.
- **2b** explore the sensory qualities of materials
- **2c** measure, mark out, cut and shape a range of materials
- **2d** combine materials
- **2e** use simple finishing techniques to improve the appearance of their product, using a range of equipment
- **2f** follow safe procedures for food safety and hygiene.
- **3a** talk about their ideas, saying what they like and dislike
- **3b** identify what they could have done differently or how they could improve their work in the future.
- **5a** investigating and evaluating a range of familiar products [for example, talking about how they work, and whether they do what they are supposed to do]
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including food.

Key Skills to be delivered during the coverage above

- Application of number, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 2. Area 2 – Making a product with movement

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 2C
Some children will not have made so much progress & will:
They use pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2B
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2A
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They select appropriate tools, techniques and materials, explaining their choices. They use tools and assemble, join and combine materials and components in a variety of ways. They recognise what they have done well as their work progresses, and suggest things they could do better in the future.

Programme of Study Area

- **1a** generate ideas by drawing on their own and other people's experiences**.**
- **1b** develop ideas by shaping materials and putting together components
- **1c** talk about their ideas
- **1d** plan by suggesting what to do next as their ideas develop
- **1e** communicate their ideas using a variety of methods, including drawing and making models.
- **2a** select tools, techniques and materials for making their product from a range suggested by the teacher
- **2c** measure, mark out, cut and shape a range of materials
- **2d** assemble, join and combine materials and components
- **3a** talk about their ideas, saying what they like and dislike
- **3b** identify what they could have done differently or how they could improve their work in the future.
- **4a** about the working characteristics of materials [for example, folding paper to make it stiffer, plaiting yarn to make it stronger]
- **4b** how mechanisms can be used in different ways [for example, wheels and axles, joints that allow movement] .
- **5a** investigating and evaluating a range of familiar products [for example, talking about how they work, and whether they do what they are supposed to do]
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including items that can be put together to make products.

Key Skills to be delivered during the coverage above

- Application of number, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 2. Area 3 – Making a product with textiles

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 2C
Some children will not have made so much progress & will:
They use pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2B
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2A
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They select appropriate tools, techniques and materials, explaining their choices. They use tools and assemble, join and combine materials and components in a variety of ways. They recognise what they have done well as their work progresses, and suggest things they could do better in the future.

Programme of Study Area

- **1a** generate ideas by drawing on their own and other people's experiences**.**
- **1b** develop ideas by shaping materials and putting together components
- **1c** talk about their ideas
- **1d** plan by suggesting what to do next as their ideas develop
- **1e** communicate their ideas using a variety of methods, including drawing and making models.
- **2a** select tools, techniques and materials for making their product from a range suggested by the teacher
- **2b** explore the sensory qualities of materials
- **2c** measure, mark out, cut and shape a range of materials
- **2d** assemble, join and combine materials and components
- **2e** use simple finishing techniques to improve the appearance of their product, using a range of equipment
- **3a** talk about their ideas, saying what they like and dislike
- **3b** identify what they could have done differently or how they could improve their work in the future.
- **4a** about the working characteristics of materials [for example, folding paper to make it stiffer, plaiting yarn to make it stronger]
- **5a** investigating and evaluating a range of familiar products [for example, talking about how they work, and whether they do what they are supposed to do]
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including items that can be put together to make products, and textiles

Key Skills to be delivered during the coverage above

- Application of number, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 3. Area 1 - Food

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 2B
Some children will not have made so much progress & will:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2A
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They select appropriate tools, techniques and materials, explaining their choices. They use tools and assemble, join and combine materials and components in a variety of ways. They recognise what they have done well as their work progresses, and suggest things they could do better in the future.

National Curriculum Level 3C
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and recognise that their designs have to meet a need. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

Programme of Study Area

- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **2a** select appropriate tools and techniques for making their product
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **2f** follow safe procedures for food safety and hygiene.
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **4a** how the working characteristics of materials affect the ways they are used
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 3. Area 2 - Mechanisms

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 2B

Some children will not have made so much progress & will:

Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2A

Age Related Expectation we need to be delivering at is that the majority of children will:

Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They select appropriate tools, techniques and materials, explaining their choices. They use tools and assemble, join and combine materials and components in a variety of ways. They recognise what they have done well as their work progresses, and suggest things they could do better in the future.

National Curriculum Level 3C

The AA/AA+ children will have progressed further & will also:

Pupils generate ideas and recognise that their designs have to meet a need. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

Programme of Study Area

- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- **2a** select appropriate tools and techniques for making their product
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **4a** how the working characteristics of materials affect the ways they are used
- **4c** how mechanisms can be used to make things move in different ways, using a range of equipment.
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 3. Area 3 – Making a product

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 2B

Some children will not have made so much progress & will:

Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They use tools and assemble, join and combine materials and components in a variety of ways.

National Curriculum Level 2A

Age Related Expectation we need to be delivering at is that the majority of children will:

Pupils generate ideas and plan what to do next, based on their experience of working with materials and components. They use models, pictures and words to describe their designs. They select appropriate tools, techniques and materials, explaining their choices. They use tools and assemble, join and combine materials and components in a variety of ways. They recognise what they have done well as their work progresses, and suggest things they could do better in the future.

National Curriculum Level 3C

The AA/AA+ children will have progressed further & will also:

Pupils generate ideas and recognise that their designs have to meet a need. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

Programme of Study Area

- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- **2a** select appropriate tools and techniques for making their product
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **4a** how the working characteristics of materials affect the ways they are used
- **4b** how materials can be combined and mixed to create more useful properties [for example, using cardboard triangles on the corners of a wooden framework to strengthen it]
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 4. Area 1 - Textiles

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 3C
Some children will not have made so much progress & will:
Pupils generate ideas and recognise that their designs have to meet a need. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

National Curriculum Level 3B
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

National Curriculum Level 3A
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques. They use tools and equipment with some accuracy to cut and shape materials and to put together components. They identify where evaluation of the design and make process and their products has led to improvements.

Programme of Study Area

- **1a** generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICTbased sources
- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- **2a** select appropriate tools and techniques for making their product
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **4a** how the working characteristics of materials affect the ways they are used
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 4. Area 2 –Movement with computer aided design

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 3C
Some children will not have made so much progress & will:
Pupils generate ideas and recognise that their designs have to meet a need. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

National Curriculum Level 3B
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

National Curriculum Level 3A
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques. They use tools and equipment with some accuracy to cut and shape materials and to put together components. They identify where evaluation of the design and make process and their products has led to improvements.

Programme of Study Area

- **1a** generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICTbased sources
- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **4c** how mechanisms can be used to make things move in different ways, using a range of equipment including an ICT control program
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 4. Area 3 – Making a product with electrics

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 3C
Some children will not have made so much progress & will:
Pupils generate ideas and recognise that their designs have to meet a need. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

National Curriculum Level 3B
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They use tools and equipment with some accuracy to cut and shape materials and to put together components.

National Curriculum Level 3A
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques. They use tools and equipment with some accuracy to cut and shape materials and to put together components. They identify where evaluation of the design and make process and their products has led to improvements.

Programme of Study Area

- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- **1d** communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2b** suggest alternative ways of making their product, if first attempts fail
- **3b** carry out appropriate tests before making any improvements
- **4d** how electrical circuits, including those with simple switches, can be used to achieve results that work.
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 5. Area 1 - Food

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 3A
Some children will not have made so much progress & will:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques. They use tools and equipment with some accuracy to cut and shape materials and to put together components. They identify where evaluation of the design and make process and their products has led to improvements.

National Curriculum Level 4C
Age Related Expectation we need to be delivering at is that the majority of children will:
National Curriculum Level 4B
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They identify what is working well and what could be improved.

Programme of Study Area

- **1a** generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICTbased sources
- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- **1d** communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2c** explore the sensory qualities of materials and how to use materials and processes
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **2f** follow safe procedures for food safety and hygiene.
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **3c** recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose [for example, how well products meet social, economic and environmental considerations] .
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use the**m**
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 5. Area 2 –Making a product

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 3A
Some children will not have made so much progress & will:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques. They use tools and equipment with some accuracy to cut and shape materials and to put together components. They identify where evaluation of the design and make process and their products has led to improvements.

National Curriculum Level 4C
Age Related Expectation we need to be delivering at is that the majority of children will:

National Curriculum Level 4B
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They identify what is working well and what could be improved.

Programme of Study Area

- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1d** communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2b** suggest alternative ways of making their product, if first attempts fail
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **2e** use finishing techniques to strengthen and improve the appearance of their product, using a range of equipment including ICT [for example, 'drawing' software or computer aided design (CAD) software and a printer]
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **3b** carry out appropriate tests before making any improvements
- **3c** recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose [for example, how well products meet social, economic and environmental considerations] .
- **4b** how materials can be combined and mixed to create more useful properties [for example, using cardboard triangles on the corners of a wooden framework to strengthen it]
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 5. Area 3 – Making a product with mechanisms

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 3A
Some children will not have made so much progress & will:
Pupils generate ideas and recognise that their designs have to meet a range of different needs. They make realistic plans for achieving their aims. They clarify ideas when asked and use words, labelled sketches and models to communicate the details of their designs. They think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques. They use tools and equipment with some accuracy to cut and shape materials and to put together components. They identify where evaluation of the design and make process and their products has led to improvements.

National Curriculum Level 4C
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas by collecting and using information. They select and work with a range of tools and equipment. They work with a variety of materials and components with some accuracy.

National Curriculum Level 4B
The AA/AA+ children will have progressed further & will also:
Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They identify what is working well and what could be improved.

Programme of Study Area

- **1a** generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICTbased sources
- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1d** communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2b** suggest alternative ways of making their product, if first attempts fail
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **3b** carry out appropriate tests before making any improvements
- **3c** recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose [for example, how well products meet social, economic and environmental considerations] .
- **4b** how materials can be combined and mixed to create more useful properties [for example, using cardboard triangles on the corners of a wooden framework to strengthen it]
- **4c** how mechanisms can be used to make things move in different ways,
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.

Communication.

Design and Technology Year 6. Area 1 – Electronics with computer control

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 4B

Some children will not have made so much progress & will:

Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They identify what is working well and what could be improved.

National Curriculum Level 4A

Age Related Expectation we need to be delivering at is that the majority of children will:

Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They communicate alternative ideas using words, labelled sketches and models, showing that they are aware of constraints. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They reflect on their designs as they develop, bearing in mind the way the product will be used. They identify what is working well and what could be improved.

National Curriculum Level 5

The AA/AA+ children will have progressed further & will also:

Pupils draw on and use various sources of information. They clarify their ideas through discussion, drawing and modelling. They work from their own plans, modifying them where appropriate. They work with a range of tools, materials, equipment, components and processes with some precision.

Programme of Study Area

- **1a** generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICTbased sources
- **1d** communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2b** suggest alternative ways of making their product, if first attempts fail
- **2c** explore the sensory qualities of materials and how to use materials and processes
- **2e** use finishing techniques to strengthen and improve the appearance of their product, using a range of equipment including ICT [for example, 'drawing' software or computeraided design (CAD) software and a printer]
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **3b** carry out appropriate tests before making any improvements
- **3c** recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose [for example, how well products meet social, economic and environmental considerations] .
- **4c** how mechanisms can be used to make things move in different ways, using a range of equipment including an ICT control program**.**
- **4d** how electrical circuits, including those with simple switches, can be used to achieve results that work.
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.

Design and Technology Year 6. Area 2 –Making a product with mechanisms

Outcomes & Assessment Judgement Based from Level Descriptors

National Curriculum Level 4B
Some children will not have made so much progress & will:
Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They identify what is working well and what could be improved.

National Curriculum Level 4A
Age Related Expectation we need to be delivering at is that the majority of children will:
Pupils generate ideas by collecting and using information. They take users' views into account and produce step-by-step plans. They communicate alternative ideas using words, labelled sketches and models, showing that they are aware of constraints. They work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function. They select and work with a range of tools and equipment. They reflect on their designs as they develop, bearing in mind the way the product will be used. They identify what is working well and what could be improved.

National Curriculum Level 5
The AA/AA+ children will have progressed further & will also:
Pupils draw on and use various sources of information. They clarify their ideas through discussion, drawing and modelling. They work from their own plans, modifying them where appropriate. They work with a range of tools, materials, equipment, components and processes with some precision.

Programme of Study Area

- **1a** generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICTbased sources
- **1b** develop ideas and explain them clearly, putting together a list of what they want their design to achieve
- **1c** plan what they have to do, suggesting a sequence of actions and alternatives, if needed
- **1d** communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.
- **2a** select appropriate tools and techniques for making their product
- **2b** suggest alternative ways of making their product, if first attempts fail
- **2c** explore the sensory qualities of materials and how to use materials and processes
- **2d** measure, mark out, cut and shape a range of materials, and combine materials accurately
- **2e** use finishing techniques to strengthen and improve the appearance of their product, using a range of equipment including ICT [for example, 'drawing' software or computeraided design (CAD) software and a printer]
- **3a** reflect on the progress of their work as they design and make, identifying ways they could improve their products
- **3b** carry out appropriate tests before making any improvements
- **3c** recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose [for example, how well products meet social, economic and environmental considerations] .
- **4b** how materials can be combined and mixed to create more useful properties [for example, using cardboard triangles on the corners of a wooden framework to strengthen it]
- **4c** how mechanisms can be used to make things move in different ways, using a range of equipment including an ICT control program
- **5a** investigating and evaluating a range of familiar products, thinking about how they work, how they are used and the views of the people who use them
- **5b** focused practical tasks that develop a range of techniques, skills, processes and knowledge
- **5c** design and make assignments using a range of materials, including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials, and textiles.

Key Skills to be delivered during the coverage above

- Application of number, Information technology, working with others, Improving own learning and performance, problem solving, Thinking skills, Information processing skills, Reasoning skills, Enquiry skills, Creative thinking skills, Evaluation skills.
- Communication.