



Wensley Fold Design and Technology Scheme of Work

Autumn Term Year 1

FOCUS TOPIC – MOVING PICTURES (Mechanisms – Levers and Sliders)

Learning Objectives

Investigation

- To investigate how simple levers and sliding mechanisms can be used to create movement.
- To investigate how levers are used in products around us e.g. scissors, balances, 3D books, toys
- To use drawings to show levers.

Focused Tasks/Skills – Technical Knowledge

- To use a range of construction kits/ card templates etc. to try out different ideas.
- To make simple sliding and lever mechanisms.
- To know and practise how to use tools safely e.g. scissors, hole punch, split pins, stapler.

Design/Make/Evaluate Assignment

Design and make a moving picture card for a special occasion and with a specific recipient in mind.

Set the design criteria and evaluate against the criteria

- To suggest ideas for what you would like to do.
- To design and model these ideas on card.
- To make the design using suitable chosen materials.
- To evaluate the finished product.



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Autumn Term Year 2

FOCUS TOPIC – FRIDGE MAGNETS (Structures – Layers and Joining)

Learning Objectives

Investigation

- To investigate fridge magnets
- To investigate magnetism
- To investigate the size, shape, colours and uses of fridge magnets
- To recognise and name a wide range of animals
- To evaluate the appearances of a range of fridge magnets

Focused Tasks/Skills – Technical Knowledge

- To investigate how to create 3D layers for effect
- To develop accurate drawing skills
- To develop accurate cutting skills

Design/Make/Evaluate Assignment

Design and make a layered fridge magnet that will appeal to a young child.

Set the design criteria and evaluate against the criteria

- To design a fridge magnet using ideas from the investigation and skills activities.
- To make suggestions as to how the fridge magnet should be constructed.
- To draw, cut out, assemble, join and combine 2D materials into a 3D layered magnet.
- To use basic tools accurately and safely.
- To evaluate and adapt the design where needed
- To evaluate the finished product, commenting on the main features.



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Autumn Term Year 3

FOCUS TOPIC – MUSICAL INSTRUMENTS (Materials and Structures)

Learning Objectives

Investigation

- To investigate, disassemble and evaluate a range of musical instruments in order to learn how they function.
- To relate the way things work to their intended purpose.
- To investigate how the choice of materials relates to what they are used for.

Focused Tasks/Skills – Technical Knowledge

- To relate how the characteristics of the materials affect how they are used.
- To investigate how different materials can be combined and mixed in order to create more useful properties.
- To join and combine materials and components accurately in temporary ways.

Design/Make/Evaluate Assignment

Design and make a musical instrument that will appeal to a child and can actually be played to accompany a performance.

Set the design criteria and evaluate against the criteria

- To identify a purpose for their instrument.
- To use information sources to help in their designing.
- To develop a clear idea of what has to be done, plan how to use materials, equipment and processes and suggest alternative methods if first attempts fail.
- To select appropriate materials, tools and techniques.
- To evaluate the design ideas as they go along, considering the user and purpose and indicate ways it may be improved in the future.



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Autumn Term Year 4

FOCUS TOPIC – LIGHTING IT UP (Control : Electrical)

Learning Objectives

Investigation

- To investigate, disassemble and evaluate products with a feature that lights up in some way.
- To investigate the use of the simple circuit in these designs, taking into account electrical safety issues.
- To investigate ways in which a switch can be activated.
- To investigate different materials chosen to fit the purpose.

Focused Tasks/Skills – Technical Knowledge

- To build a range of circuits with different switches and to know that actions can be made to occur as a direct result of other actions.
- To join and combine electrical components accurately in temporary and permanent ways including using a variety of metals and aluminium tape.(Revise conductors / insulators)
- To find a fault in a simple circuit and correct it.

Design/Make/Evaluate Assignment

Design and make a model which incorporates a feature that lights up and is controlled by a switch.

- To identify a purpose for the design idea.
- To draw up plans for the design using drawings with labels.
- To develop a clear idea of what has to be done, plan how to use materials, equipment and processes and suggest alternative methods if first attempts fail.
- To select appropriate materials, tools and techniques.
- To evaluate the product using appropriate tests.



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Autumn Term Year 5

FOCUS TOPIC – MOVING CARD DESIGN (Mechanisms – Levers, Linkages and Sliders)

Learning Objectives

Investigation

- To investigate how linkages, levers and sliding mechanisms can be used to create movement in a picture/scene.
- To investigate how linkages, levers and sliding mechanisms are used in products around us e.g. scissors, balances, 3D books, toys, cards etc.

Focused Tasks/Skills – Technical Knowledge

- To use a range of card templates etc. to try out different ideas/ create different effects
- To make a wide variety of linkages, sliding and lever mechanisms from card and other materials
- To know and practise how to use tools safely e.g. scissors, hole punch, split pins, stapler, craft knives for scoring

Design/Make/Evaluate Assignment

**Design and make a card for a special occasion and with a specific recipient in mind that has 2 movements/ designs.
Set the design criteria and evaluate against the criteria**

- To suggest ideas for what you would like to do.
- To use drawings to show the content and layout of a moving picture on a card
- To design and model these ideas on card.
- To make the design using suitable chosen materials and decorate for effect
- To evaluate the finished product.



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Autumn Term Year 6

FOCUS TOPIC – PACKAGING (Structures and CAD)

Learning Objectives

Investigation

- To investigate how things work related to their intended purpose.
- To investigate how the materials and components of packages have been used and put together.
- To investigate how the characteristics of materials relate to what they have been used for.
- To investigate what constitutes 'appeal' to the consumer when selecting a package

Focused Tasks/Skills – Technical Knowledge

- To know that 3D shapes can be constructed from nets and the final 3D shape is dependent on the shape of the net.
- To learn how to accurately measure, mark out, cut, score and assemble the net of a 3D shape including a joined or separate lid.
- To use tools safely.
- To investigate the use of different writing styles for different purposes.
- To investigate how CAD design can be used for the box design

Design/Make/Evaluate Assignment

Design and make an attractive packaging box to hold some chocolates/sweets to be given as a gift.

- To generate ideas for the box considering its purpose and the recipient.
- To design and then create a package for the purpose of holding the sweets/chocs to be given as a gift.
- To evaluate and adapt the design where needed.
- To use CAD to create an element of the box.
- To evaluate the design ideas and the finished box against the set criteria.