

Manor Primary School

DT Year 5: Designing and Making and Advert for World Peace! Focus ICT

Overview of the Learning:

In this unit of learning children will design and make an advert using Tri-cast Studio and green screen technology. They will write, perform, film and edit their advert.

Core Aims

- Use research and develop design criteria to inform the design of adverts, that are fit for purpose, aimed at particular individuals or groups.
- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and plans
- Investigate and analyse a range of existing adverts
- 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.
- Apply their understanding of computing to program, monitor and control their production.

Pupils should be taught to. the skills that children need to learn to make progress:

They will

- Observe and explore to generate ideas, define problems and pose questions in order to develop investigations.
- apply practical skills to design, make and improve products safely, taking account of users and purposes
- communicate and model in order to explain and develop ideas, share findings and conclusions
- to continually make systematic evaluations when designing and making, to bring about improvements in processes and outcomes.

Pupils should be taught about creating adverts :

How to critically evaluate adverts understanding how they are used to sell products and raise awareness.

Identify how to use the tri caster studio to create an advert.

To create virtual sets

be able to use auto cue to create effective use of titles and credits.

To effectively use transitions and an effect on a video clip.

To use flip camera and insert films into tri case studio

To learn how to edit audio.

Expectations



Children can:

Identify the way adverts are presented to an audience.

Plan and create an advert thinking about the target audience.

Use the tri-caster studio to create a high quality advert with virtual sets.

Insert clips into their adverts.

Edit their work for improvements.

Manor Primary School Science Year 5: Controllable Vehicles

Overview of the Learning:

In this unit, children develop their understanding of how products can be driven by electricity. They learn how to use motors within their models and how to control the speed and direction of movement. They develop their designing skills by using their own ideas and experiences to produce clearly labelled drawings. They use construction kits and a range of materials and components to develop their skills, knowledge and understanding. The children will produce a framework structure that will be controlled by an electrical circuit. The children will develop this structure with cladding and appropriate finishing techniques to create a quality product.

The vehicles made in this unit could be linked to the computer using appropriate equipment and software to enable children to experience writing procedures to control the movement and direction of their vehicles. This unit could be adapted by focusing on a particular type of vehicle *eg a circus vehicle, a carnival float, a moon buggy, a vehicle for transporting a particular load. Could be altered to create a speed boat!*

Core Aims

To use research and develop design criteria to inform the design of functional moving vehicles 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, according to their functional properties and aesthetic qualities

Evaluate

investigate and analyse a range of existing products

Pupils should be taught to develop knowledge, skills and understanding by exploring and developing ideas ...

- Observe and explore and generate ideas, define problems and pose questions in order to develop investigations and products.
- Take ownership of the whole design process: carrying out market research, designing, creating a prototype, making improvements, creating an end product and evaluating.
- Apply practical skills to design, make and improve products safely, taking account of users and purposes.
- Children will become familiar with how to create a design specification with the needs of the end user in mind taking into consideration the results of their



evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Technical knowledge

apply their understanding of how to join materials permanently.

To apply their knowledge of circuits to creating a moving vehicle that is controlled by electricity.

market research. Communicate and model in order to explain and develop ideas, share findings and conclusions.

- To continually make systematic evaluations when designing and making, to bring about improvements in processes and outcomes **Error! Reference source not found.**

Pupils should be taught about making moving vehicles:

- To understand how motors can be used to create moving vehicles.
- To know how to use resources to make a chassis complete with axles and wheels that roll straight.
- To use hacksaws and wood to create a chassis.
- To understand how to use permanent joining techniques.
- To understand how switches can be incorporated to control the vehicle.

Expectations

Children can:

Examine a range of moving/ controllable vehicles and identify the key features eg chassis, axles, motor and wheels.

Carry out market research including questionnaires to find out about the products that are available to buy, gaps in the market and the needs of the end user.

Identify the suitability of materials ensuring they are fit for purpose.

Create a design specification for their own controllable vehicle.

To use a hack saws and permanent joining techniques to create a chassis.

To use a circuit to control and power the vehicle.

To evaluate the vehicle against the design specification.

Suggest improvements during and after the design and making process.



Manor Primary School

Design Technology Year 5: Designing and Making a Fair Trade Snack

Overview of the Learning:

Children will investigate fair-trade food products and the impact they have on countries across the world. They will design and make a new fair-trade product and gain knowledge and understanding of the design and make process. They will explore and understand who you are designing for by creating a customer profile. They will also: design and label a range of products; write a design specification; produce a step-by-step plan for making your product as well as making a quality product. They will market their product

Core Aims

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 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

Cooking and Nutrition

understand and apply the principles of a healthy and varied diet

prepare and cook a variety of dishes using a range of cooking techniques

understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Pupils should be taught to develop their design and making skills They will:

Observe and explore and generate ideas, define problems and pose questions in order to develop investigations and products.

Take ownership of the whole design process: investigating existing products, designing, preparing and making a **RANGE** of fair trade products , designing an end product, making improvements and evaluating

To identify the needs of the end user by exploring existing products and asking questions about what people would like to see in a fair trade snack.

Apply practical skills to design, make and improve products safely, taking account of users and purposes.

Children will become familiar with how to create a design specification with the needs of the end user in mind taking into consideration the products they have examined.

Communicate and model in order to explain and develop ideas, share findings and conclusions.

To continually make evaluations when designing and making, to bring about improvements in processes and outcomes **Error! Reference source not found.**

To understand how to cost, package, advertise and market a product and the importance of these final stages.

Pupils should be taught about fair trade snacks.

What fair trade is and why it is important.

To identify where different fair trade products come from.

How to prepare a range of fair trade snacks.



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Expectations
To understand what fair trade is and why it is important.
To taste test and examine a range of fair trade snacks thinking about the colour, texture, flavour, appearance.
Examine a range of existing snacks and related products and identify how they have been made and their qualities. (taste, texture, appearance)
To carry out market research and analyse the results in order to inform their own design ideas.
Create a design specification for a fair trade snack thinking about the end user.
To be able to mix, combine and prepare ingredients for their product.
To package, cost and market their product to potential end users.
To present and evaluate their product with the views of the end user in mind.



