



Design and

Technology

Scheme of Work:

Key Stage 1

Year 1

Sheet materials

SUCCESS CRITERIA

I can...

- Fold, tear and cut paper and card
- Roll paper to create tubes
- Cut along lines, straight and curved
- Curl paper
- Use hole punch
- Insert paper fasteners for card linkages
- Create hinges
- Use simple pop ups
- Investigate strengthening sheet materials
- Investigate joinings temporary, fixed and moving

OBJECTIVES:

Working towards...

Make:

To select from and use a range of tools and equipment to perform practical tasks.

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Technical Knowledge:

To explore and use mechanisms in their products.

To build structures, exploring how they can be made stronger, stiffer and more stable.

SUGGESTIONS FOR THE UNIT:

- Moving pictures (Planning support available)
- Investigating hinges (Planning support available)
- Pop-up cards
- Lift the flap/pop-up/sliding picture.

CROSS-CURRICULAR LINKS:

- SCIENCE- Materials
- ENGLISH- notes and labels on designs
- SPEAKING AND LISTENING- Discussions (designing/making/evaluating)
- SMSC- Reflecting on products and inventions, the diversity of materials and the ways in which design can improve the quality of our lives.
- SMSC- Opportunities to work as a team, recognising others' strengths, sharing equipment.

Food

SUCCESS CRITERIA

I can...

- Develop a food vocabulary using taste ,smell, texture and feel
- Group familiar food products e.g. fruit and vegetables
- Cut, peel, grate, chop a range of ingredients
- Work safely and hygienically
- Understand the need for a variety of foods in a diet
- Measure and weigh food items, non-statutory measures e.g. spoons, cups

OBJECTIVES:

Cooking and Nutrition:

To use the basic principles of a healthy and varied diet to prepare dishes.

To understand where food comes from.

SUGGESTIONS FOR THE UNIT:

- Eat more fruit and vegetables (Planning support available)
- Fruit salad
- Yogurt
- Healthy pizza
- Smoothie
- Healthy muffins

CROSS CURRICULAR LINKS:

- SCIENCE- Staying healthy
- MATHS- Measures
- ENGLISH- Writing lists. Labelling
- SPEAKING AND LISTENING- Discussion (developing/creating/evaluating)
- SMSC- Reflecting on products and inventions, the diversity of materials and the ways in which design can improve the quality of our lives.
- SMSC- Opportunities to work as a team, recognising others' strengths, sharing equipment.

Developing, planning and communicating ideas

SUCCESS CRITERIA:

Working towards...

I can...

- Follow verbal instructions
- Explore and evaluate a range of existing products
- Explain what they are making and which materials they are using
- Name the tools they are using
- Describe what they need to do next
- Select materials from a limited range that will meet the design criteria
- Select and name the tools needed to work the materials
- Select appropriate technique explaining First.....Next.....Last....
- Explore ideas by rearranging materials
- Model ideas with kits, reclaimed materials
- Select pictures to help develop ideas
- Use pictures and words to convey what they want to design and make
- Describe their models and drawings of ideas and intentions
- Use kits/reclaimed materials to develop an idea
- Use drawings to record ideas as they are developed
- Discuss their work as it progresses
- Add notes to drawings to help explanations

OBJECTIVES:

Working towards...

Design:

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

To design purposeful, functional, appealing products for themselves and other users based on design criteria.

Evaluate:

To explore and evaluate a range of existing products.

Evaluation

SUCCESS CRITERIA:

Working towards...

I can...

- Say what they like and do not like about items they have made and attempt to say why
- Talk about their designs as they develop and identify good and bad points
- Talk about changes made during the making process
- Discuss how closely their finished products meet their design criteria

OBJECTIVES:

Working towards...

Evaluate:

To evaluate their ideas and products against design criteria.

Year 2

Construction

SUCCESS CRITERIA:

I can...

- Make vehicles with construction kits which contain free running wheels
- Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels
- Attach wheels to a chassis using an axle
- Join appropriately for different materials and situations e.g. glue, tape,
- Mark out materials to be cut using a template
- Cut strip wood/dowel using hacksaw and bench hook
- Use glue gun with 1:1 support from an adult

OBJECTIVES:

Make:

To select from and use a range of tools and equipment to perform practical tasks.

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

Technical Knowledge:

To explore and use mechanisms in their products.

To build structures, exploring how they can be made stronger, stiffer and more stable.

SUGGESTIONS FOR THE UNIT:

- Vehicles (Planning support available)
- Wind-up mechanisms (Planning support available)
- Moon buggies
- Elastic band racers
- Draw bridges
- Wishing well (bucket)
- Kinex, lego, Duplo (for developing ideas)

CROSS-CURRICULAR LINKS:

- SCIENCE- Forces
- MATHS- Measures
- ENGLISH- labelling, notes, evaluation etc.
- SPEAKING AND LISTENING- Discussion (developing/creating/evaluating)
- SMSC- Reflecting on products and inventions, the diversity of materials and the ways in which design can improve the quality of our lives.
- SMSC- Opportunities to work as a team, recognising others' strengths, sharing equipment.
- SMSC- Awareness of the moral dilemmas created by technological advances.

Textiles

SUCCESS CRITERIA:

- Colour fabrics using a range of techniques e.g. fabric paints, printing, painting
- Cut out shapes which have been created by drawing round a template onto the fabric
- Join fabrics by using running stitch, glue, staples ,over sewing, tape
- Decorate fabrics with buttons, beads, sequins, braids, ribbons

OBJECTIVES:

Make:

To select from and use a range of tools and equipment to perform practical tasks.

To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

To build structures, exploring how they can be made stronger, stiffer and more stable.

SUGGESTIONS FOR THE UNIT:

- Creating a coat (Planning support available)
- Puppets (Planning support available)
- Barnaby's poncho
- Memory blanket (patchwork)
- Tote bag

CROSS-CURRICULAR LINKS:

- SCIENCE- Materials, seasons, weather.
- ART- Painting
- SMSC- Reflecting on products and inventions, the diversity of materials and the ways in which design can improve the quality of our lives.
- SMSC- Opportunities to work as a team, recognising others' strengths, sharing equipment.
- SMSC- Awareness of the moral dilemmas created by technological advances.

Developing, planning and communicating ideas

SUCCESS CRITERIA:

I can...

- Follow verbal instructions
- Explore and evaluate a range of existing products
- Explain what they are making and which materials they are using
- Name the tools they are using
- Describe what they need to do next
- Select materials from a limited range that will meet the design criteria
- Select and name the tools needed to work the materials
- Select appropriate technique explaining First.....Next.....Last....
- Explore ideas by rearranging materials
- Model ideas with kits, reclaimed materials
- Select pictures to help develop ideas
- Use pictures and words to convey what they want to design and make
- Describe their models and drawings of ideas and intentions
- Use kits/reclaimed materials to develop an idea
- Use drawings to record ideas as they are developed
- Discuss their work as it progresses
- Add notes to drawings to help explanations

OBJECTIVES:

Design:

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

To design purposeful, functional, appealing products for themselves and other users based on design criteria.

Evaluate:

To explore and evaluate a range of existing products.

Evaluation

SUCCESS CRITERIA:

I can...

- Say what they like and do not like about items they have made and attempt to say why
- Talk about their designs as they develop and identify good and bad points
- Talk about changes made during the making process
- Discuss how closely their finished products meet their design criteria

OBJECTIVES:

Evaluate:

To evaluate their ideas and products against design criteria.