

D'C

YEAR: 2 TERM: Spring 2 TITLE: Design, Make and Evaluate a Smoothie (Food - Preparing Fruit and Vegetables)

|  |                                |                                     |                         | Vegetables)                   |                           |  |
|--|--------------------------------|-------------------------------------|-------------------------|-------------------------------|---------------------------|--|
|  | COHERENCE                      | CREDIBILITY                         | CREATIVITY              | COMPASSION                    | COMMUNITY                 |  |
| <b>REVISION / REMIND / REVISIT</b> Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. Experience of cutting soft fruit and vegetables using appropriate utensils | THE BIG QUESTION               | Knowledge Acquired                  | A variety of            |                               |                           |  |
|  | 4-                             | Investigative and Evaluative        | contributions to a      | Discuss the importance of     | At home children          |  |
|  |                                | Activities:                         | classroom display       | crops and the farmers         | discuss with their        |  |
|  |                                | Examine a range of fruit and        | based on the Big        | around the world who work     | parents and siblings      |  |
|  | Compare - an African fruit     | vegetables. Develop understanding   | Question                | the whole year round to       | which fruits they enjoy   |  |
|  | smoothie and a UK fruit        | - What is this called? Who has      |                         | provide food for us.          | and which fruits they     |  |
|  | smoothie.                      | eaten this before? Where is it      | Discuss and sort:       |                               | would like in a smoothie. |  |
|  | Which do you prefer?           | grown? When can it be harvested?    | Fruits grown in the UK  | Discuss everyone is different |                           |  |
|  |                                | What are the different parts        | eg. Strawberries,       | and has different tastes -    | Record this information.  |  |
|  |                                | called? Children handle, smell and  | raspberries,            | likes and dislikes            | What would you make at    |  |
|  | LINKS to NC/rationale:         | taste fruit and vegetables to       | blueberries,            |                               | home for your 'Family     |  |
|  | Design                         | describe them through talking and   | gooseberries,           | Which smoothie do you         | Favourite'?               |  |
|  | Design appealing products for  | drawing – describe shape, colour,   | loganberries, cherries, | prefer and why?               |                           |  |
|  | a particular user based on     | feel, taste.                        | blackberries            |                               | Make smoothies for an     |  |
|  | simple design criteria         | Evaluate existing products to find  | Fruits grown in Africa  |                               | African Party Day         |  |
| Z selection  | Generate initial ideas and     | out what they like the best.        | eg. Papaya, mango,      |                               |                           |  |
| <b>IO</b><br>etak<br>ng s  | design criteria through        | Children investigate preferences    | banana, pineapple,      |                               |                           |  |
| <b>TS</b><br>veg<br>uttii  | investigating a variety of     | of their intended users             | jackfruit, watermelon,  | The 'answers' to the BIG      |                           |  |
| REVISION and vegetable of cutting sof  | fruit and vegetables           | Skills/Concepts Explored            | orange, passion fruit   | QUESTION                      |                           |  |
| ui†  | Communicate these ideas        | Focused Tasks:                      |                         |                               |                           |  |
| n fr<br>rier   | through talk and drawings      | Understand basic food hygiene       | Photos of the children  |                               |                           |  |
| mm<br>xpe  | Make                           | practises when handling food        | tasting a variety of    |                               |                           |  |
| :<br>. E   | Use simple utensils and        | including the importance of         | fruit                   | and the second                | <i>y</i>                  |  |
| e of<br>sme  | equipment to peel, cut, slice, | following instructions to control   |                         |                               |                           |  |
| Experience   | squeeze, grate, and chop       | risk                                | Write instructions for  | DEEP DIVE                     |                           |  |
|  | safely                         | Use simple utensils to practise     | making a smoothie       |                               |                           |  |
|  | Select from a range of fruit   | food processing skills such as      |                         |                               |                           |  |
|  | and vegetables according to    | washing, grating, peeling, slicing, | The Eatwell Plate       |                               |                           |  |

their characteristics eg, colour, texture, and taste to create a chosen product **Evaluate** 

Taste and evaluate a range of fruit and vegetables to determine the intended user and purpose

# Technical knowledge and Understanding

Understand where a range of fruit and vegetables come from eg farmed or grown at home

Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The Eatwell Plate
Know and use technical and sensory vocabulary relevant to the project

squeezing - Do we eat the whole fruit/which parts do we eat? Explore different effects achieved by different processes
Understand healthy eating advise using The Eatwell Plate model and the importance of fruit and vegetables in a balanced diet - Why is important to eat fruit and vegetables? Why is it important to wash fruit and vegetables before we eat them?

## Key vocabulary:

Fruit and vegetable names, names of equipment and utensils
Sensory vocabulary eg. Soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard
Flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, investigating tasting, arranging, popular, design, evaluate, criteria

Record results - which are favourite ingredients Which fruit combine well together?

Health and safety

Pupils should be taught to work safely and hygienically, using tools, equipment, techniques and ingredients appropriate to the task Prior to undertaking this project risk assessments should be carried out, including identifying whether there are children who are not permitted to taste or handle any food ingredients or products.

## ASSESSMENT CRITERIA:

- Know that food comes from plants and animals and that it is farmed or caught.
- Know how to prepare simple dishes safely and hygienically without a heat source, name and sort foods into groups; know that everyone should eat at least five portions of fruit and vegetables a day.

### Cross Curricular Links

Science - understand that plants have leaves, stems, roots, flowers, and fruits; understand the importance of growing plants and how seasons affect growth. Talk about a balanced diet, different types of food and hygiene.

**Spoken language** - children develop and use a sensory vocabulary. Ask questions to check understanding; use the correct terminology for equipment and food processes.

Writing - develop descriptive writing based on first-hand experience of tasting fruit and vegetables. Instructions on how to use one of the utensils; how to prepare e.g. a fruit for eating. Children write a simple account about how they made their food product.

Mathematics - carry out a simple survey to find out which are the favourite fruits/vegetables; construct and interpret the information in e.g. pictograms and bar graphs.

Art and design - use and develop drawing skills.

Computing - use digital photographs to help order the main stages of making and support children's writing.



D'C

YEAR: 2 TERM: Autumn 1 TITLE: Design, Make and Evaluate a house for Stick Man (Structures - Free Standing Structures)

**CREDIBILITY CREATIVITY COMPASSION COMMUNITY** COHERENCE **REVISION / REMIND / REVISIT** Experience of using construction kits to build walls, towers and frameworks. Experience of using of basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card. Experience of different methods of THE BIG QUESTION Looking after Knowledge Acquired A variety of Investigative and Evaluative contributions to a stickman/keeping him safe Children talk to parents Activities: classroom display about the construction Go on a walk/look at photographs What do we all need to keep based on the Big of their own houses of the local area to explore Question us safe and secure? solid, strong walls, doors structures such as playground and windows to keep the Who can build a home equipment, furniture, walls. What Build a house for Look at and talk about which wind and rain out etc to keep stick man are the structures called and what Stick Man of the houses were stable safe? is their purpose? What materials and why. Share photographs of card and paper Who managed to build a safe their designs/ houses have been used? Why have these Is this house going been chosen? How have the parts and stable structure for with parents to have windows? been joined together? How have What will they be Stick Man to live in and stay LINKS to NC/rationale: they been made strong enough? made of? safe? Design How have they been made stable? Design purposeful, functional, Children draw or photograph the Children to design appealing products for structures they have been and make original themselves and other users exploring and label with correct The 'answers' to the BIG and inventive based on design criteria QUESTION technical vocabulary in relation to structures Generate, develop, model and the structure, materials used and explaining the communicate their ideas shape - wall, tower, framework, features they through talking, drawing, base, joint, metal, wood, plastic, would like to templates, mock-ups and, include and why brick, triangle, square, cuboid, where appropriate, cube. DEEP DIVE

information and communication technology

Select from and use a range

#### Make

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

#### Evaluate

Explore and evaluate a range of existing products

Evaluate their ideas and products against design criteria

# Technical knowledge and Understanding

Build structures, exploring how they can be made stronger, stiffer and more stable

# Skills/Concepts Explored Focused Tasks:

Demonstrate measuring, marking out, cutting, shaping, joining, and finishing techniques with a range of tools and new and reclaimed materials.

Build and explore a variety of freestanding structures using construction kits such as wooden blocks or interconnecting plastic bricks - how can you stop structure from falling over? How can they be made stronger and stiffer to carry a load?

Fold paper or card to make structures using masking tape to make joins. Think about how folding materials can make them stronger, stiffer, stand up and be more stable. Can they support an object on top of their structures without it falling over or breaking?

## Key vocabulary:

Cut, fold, join, fix
Structure, wall, tower, framework,
weak, strong, base, top,
underneath, side, edge. surface,
thinner, thicker, corner, point,
straight, curved.
Metal, wood, plastic
2D and 3D shapes

Test the strength of the house - can it be blown over in the 'wind' (1 fan, 2 fans?) Do they need to make the house more stable?

Photographs of the houses/tests to assess stability

Health and safety

Pupils should be taught to work safely, using tools, equipment, materials, components and techniques appropriate to the task. Risk assessments should be carried out prior to undertaking this project.

| Design, make, evaluate, user, purpose, ideas, design criteria, product, function |  |  |  |
|--|--|--|--|
|--|--|--|--|

#### ASSESSMENT CRITERIA:

- Use simple design criteria; state what their products are and who and what they are for and how they will work.
- Generate ideas using their own experiences and existing products: using talk and drawing, templates, mock-ups and, where appropriate, computers.
- Plan by suggesting what to do next; select from a range of tools, equipment, materials and components.
- Follow procedures for safety and hygiene; measure, mark out, cut, shape, assemble, join, combine and finish a range of materials and components.
- Make simple judgements about their products and ideas against design criteria.
- Explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.
- Know about the simple working characteristics of materials and components, the movement of simple mechanisms, how freestanding structures can be made stronger, stiffer and more stable; use the correct technical vocabulary.

## Cross Curricular Links

**Geography** - use simple fieldwork and observational skills to study the geography of their school and its grounds and the key physical features of its surrounding environment.

**Spoken language** - participate in discussion about various structures, taking turns and listening to what others say. Ask relevant questions to extend their knowledge and understanding. Build technical vocabulary. Use spoken language to develop understanding through imagining and exploring ideas.

**Mathematics** – use appropriate standard and non-standard measures. Recognise and name common 2-D and 3-D shapes.

Science – think about the properties of materials that make them suitable or unsuitable for particular purposes. Art and design – use colour, pattern, line, shape. Use and develop drawing skills.



D'C

YEAR: 2 TERM: Autumn 2 TITLE: Design, Make and Evaluate a Christmas Card with a moving part (Mechanisms - Sliders and Levers)

|                                       |   | (Mechanisms - Sliders and Levers) |                                 |                               |  |  |  |  |
|---------------------------------------|---|-----------------------------------|---------------------------------|-------------------------------|--|--|--|--|
| COHERENC THE BIG QUEST                | CREDIBILITY                                     | CREATIVITY                        | COMPASSION                      | COMMUNITY                     |  |  |  |  |
| THE BIG QUEST                         | ION Knowledge Acquired                          | A variety of                      | Discuss feelings and ideas to   |                               |  |  |  |  |
| 4                                     | Investigative and                               | contributions to a                | involve the older generation in | Take cards to Retirement home |  |  |  |  |
|                                       | Evaluative Activities:                          | classroom display                 | our lives                       | - Eleanor Lodge               |  |  |  |  |
|                                       | Explore and evaluate a                          | based on the Big                  |                                 |                               |  |  |  |  |
|                                       | collection of books and                         | Question                          | Go and visit the elderly in our | Sing some Christmas songs and |  |  |  |  |
| Can we make                           |   |                                   | community to make them feel     | deliver the cards to the      |  |  |  |  |
| resident smile                        | moving parts, including                         |                                   | valued                          | residents                     |  |  |  |  |
| Christmas?                            | those with levers and                           | Photos of children                |                                 |                               |  |  |  |  |
| Chiristinus                           | sliders.  | discussing cards                  | Are the residents happy to      |                               |  |  |  |  |
|                                       | Develop understanding -                         | with residents                    | receive their cards?            |                               |  |  |  |  |
| LINKS to NC/ration                    | what pair of the product                        |                                   |                                 | S.M.I.L.E                     |  |  |  |  |
| <b>Design</b> Generate ideas based or | moved and how did it move?                      | Photos/mock-ups                   |                                 | Visit Eleanor Lodge to        |  |  |  |  |
| design criteria and thei              | 1 10W do you mink me                            | of sliders and                    |                                 | deliver the cards to the      |  |  |  |  |
| experiences, explaining               | what  | levers                            | The 'answers' to the BIG        | residents                     |  |  |  |  |
| they could make                       | Skills/Concepts Explored                        | <b>-1</b>                         | QUESTION                        |                               |  |  |  |  |
| Develop, model, and                   | Focused Tasks:                                  | Christmas cards                   |                                 | <del>"</del>                  |  |  |  |  |
| communicate their ideas               | Sliders and levers                              | DI 1 - 6 1:11.                    |                                 |                               |  |  |  |  |
| through drawings and m                | Develop the children's                          | Photos of children                |                                 |                               |  |  |  |  |
| with card and paper                   | understanding - how does the slider/lever move? | visiting the                      | _                               |                               |  |  |  |  |
| Make                                  | Which part of the                               | residents to sing to them         | DEEP DIVE                       |                               |  |  |  |  |
| Plan by suggesting what               |   | the cards                         | 500. 51VC                       |                               |  |  |  |  |
| next                                  | Replicate sliders and levers                    |                                   |                                 |                               |  |  |  |  |
| Select and use tools, ex              | plaining and add pictures to their              |                                   |                                 |                               |  |  |  |  |
| their choices, to cut, sh             | ape and mechanisms                              |                                   |                                 |                               |  |  |  |  |
| join paper and card                   |   |                                   |                                 |                               |  |  |  |  |
|                                       |   |                                   |                                 |                               |  |  |  |  |
|                                       |   |                                   |                                 |                               |  |  |  |  |

Use simple finishing techniques suitable for the product they are creating

#### Evaluate

Explore a range of existing books and everyday products that use simple sliders and levers

Evaluate their product by discussing how well it works in relation to the purpose and user and whether it meets design criteria

# Technical knowledge and Understanding

Explore and use sliders and levers
Understand that different mechanisms produce different types of movement
Know and use technical vocabulary relevant to the project

# Key vocabulary:

Slider, lever, pivot, slot, bridge/guide
Card, masking tape, paper fastener, join
Pull, push, up, down, straight, curve forwards, backwards
Design, make, evaluate, user, purpose, ideas, design criteria, product, function

## Health and safety

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### ASSESSMENT CRITERIA:

- Use simple design criteria; state what their products are and who and what they are for and how they will work.
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- Explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.
- Know about the simple working characteristics of materials and components, the movement of simple mechanisms, how freestanding structures can be made stronger, stiffer and more stable; use the correct technical vocabulary.

### Cross Curricular Links

**Spoken language** - participate in discussion about books and other products with moving parts, taking turns, and listening to what others say. Ask relevant questions to extend their knowledge and understanding. Build technical and directional vocabulary. Use spoken language to develop understanding through imagining and exploring ideas.

Mathematics – describe position, direction, and movement. Use appropriate standard and non-standard measures. Art and design – use colour, pattern, line, shape.

Computing - digital graphics and text could be incorporated into final products as the background or moving parts.