 St John Fisher Primary School

**Design & Technology Long Term Plan – 2021/22**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Advent 1** | **Advent 2** | **Lent 1** | **Lent 2** | **Pentecost 1** | **Pentecost 2** |
| EYFS |  | Christmas crib making and designing |  | Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products, stories or their own ideas, interests or experiences | Create collaboratively sharing ideas, resources, and skills  Shares their creations, explaining the process they used | Safely uses and explores a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function |
|  | | | | | |
| **Cycle A** | | | | | | |
| Year 1/2 |  | Shade and Shelter |  | Taxi! |  | Chop, slice and mash |
| **Year 3/4** |  | Cook well, eat well |  | Making it Move |  | Greenhouse |
| **Year 5/6** |  | Food for Life\* |  | Engineer |  | Architecture |
| **Cycle B** | | | | | | |
| Year 1/2 |  | Remarkable Recipes |  | Beach huts |  | Push and pull |
| **Year 3/4** |  | Fresh food, good food |  | Functional Fancy Fabrics |  | Tomb builders |
| **Year 5/6** |  | Moving Mechanisms\* |  | Eat the Seasons |  | Make Do and Mend |

**DT Cycle A**

|  |  |  |  |
| --- | --- | --- | --- |
| Year 1/2 | | | |
| Term | Advent | Lent | Pentecost |
| Title | ***Shade and Shelter*** | ***Taxi!*** | ***Chop, Slice and Mash*** |
| Engage | 1 hour- Investigating shelters | 1 hour- Investigating wheels, axles and chassis | 45 minutes- Investigating sources of food |
| Develop | 45 minutes- Lesson 1: Properties of materials  45 minutes- Lesson 2: Designing shelters  1 hour- Lesson 3: Building prototype shelters | 1 hour- Lesson 1: Experimenting  1 hour- Lesson 2: Exploring axles | 1 hour- Lesson 1: Preparing fruits and vegetables  1 hour- Lesson 2: Exploring salads |
| Innovate | 45 minutes- Lesson 1: Designing a play den  1-2 hours- Lesson 2: Making a play den | 1 hour- Lesson 1: Designing our taxis  1-2 hours-Lesson 2: Making our taxis | 45 minutes- Lesson 1: designing a supermarket sandwich  45 minutes- Lesson 2: making a supermarket sandwich |
| Express | 45 minutes: Evaluation | 1 hour- Evaluating our taxis | 30 minutes: Evaluating |
| Year 3/4 | | | |
| Term | Advent | Lent | Pentecost |
| Title | ***Cook well, Eatwell*** | ***Making it move*** | ***Greenhouse*** |
| Engage | 1 hour- Healthy balanced diets | 90 minutes- Machines and mechanisms | 1 hour-Lesson 1: Green house design  1 hour-Lesson 2: Significant designers |
| Develop | 1 hour- Lesson 1: Using cooking appliances  1 hour- Lesson 2: Making a ratatouille | 2 hour- Lesson 1: How cams work.  1 hour- Lesson 2: Using different shaped cams | 90 minutes- Lesson 1: Strengthening structures  90 minutes- Lesson 2: Using a hot glue gun  45 minutes- Lesson 3: Investigating sheet materials |
| Innovate | 45 minutes- Lesson 1: plan a taco filling  1 hour- Lesson 2: make a taco filling | 1 hour-Lesson 1: Designing an automaton toy  90 minutes-Lesson 2: Making an automaton toy | 1 hour-Lesson 1: Planning a mini greenhouse  90 minutes-Lesson 2: Make a mini greenhouse |
| Express | 30 minutes: Evaluation | 45 minutes: Evaluation | 45 minutes: Mini green house Evaluation |
| Year 5/6 | | | |
| Term | Advent | Lent 1 | Pentecost |
| Title | ***Food for Life*** | ***Engineer*** | ***Architecture*** |
| Engage | 1 hour- Exploring processed foods | 30 minutes- Lesson 1: Bridges and engineers  45 minutes- Lesson 2: Features of bridges | 1 hour- Architecture over time |
| Develop | 2 hours- Lesson 1: comparing processed and homemade bread  75 minutes- Lesson 2: Whole foods | 45 minute- Lesson 1: Strengthening paper bridges  45 minutes- Lesson 2: Triangles for strength | 45 minutes- Lesson 1: Greek architecture  90 minutes- Lesson 2: Support, stiffness and stability  90 minutes- Lesson 3: Computer-aided design |
| Innovate | 1 hour- Lesson 1: Designing a healthy meal  1 hour- Lesson 2: Making a healthy meal | 30 minute- Lesson 1: Designing a bridge prototype  1 hour- Lesson 2: Making a bridge prototype | 2 hour- Lesson 1: Building design |
| Express | 30 minutes: Evaluation | 30 minutes: Evaluation | 45 minutes: Evaluation |

**DT Cycle B**

|  |  |  |  |
| --- | --- | --- | --- |
| Year 1/2 | | | |
| Term | Advent | Lent | Pentecost |
| Title | ***Remarkable Recipes*** | ***Beach hut*** | ***Push and pull*** |
| Engage | 45 minutes- exploring where food comes from | 1 hour- Investigating beach huts | 1 hour- Machines and mechanisms |
| Develop | 1 hour- Lesson 1: Tools  90 minutes- Lesson 2: Why do we cook our food?  1 hour- Lesson 3: Reading recipes | 1 hour- Lesson 1: Experimenting  2 hours- Lesson 2: working with wood | 1 hour- Lesson 1: Slider mechanism  1 hour- Lesson 2: Lever mechanism  1 hour- Lesson 3: Linkage mechanism |
| Innovate | 1 hour- Lesson 1: Planning a school meal  1 hour-Lesson 2: Making a school meal | 1-2 hour- Lesson 1: Designing our huts  2-3 hours- Lesson 2: Making our huts | 1 hour- Lesson 1: Design a moving greeting card  90 minutes-Lesson 2: Make a moving greeting card |
| Express | 30 minutes: Evaluation | 30 minutes- Evaluating our beach huts | 1 hour- Evaluate |
| Year 3/4 | | | |
| Term | Advent | Lent | Pentecost |
| Title | ***Fresh food, good food*** | ***Functional and Fancy fabrics*** | ***Tomb builders*** |
| Engage | 45 minute- keep food fresh | 1 hour- exploring fabrics | 45 minutes- Identifying simple machines |
| Develop | 1 hour- Lesson 1: Food packaging  1 hour- Lesson 2: Diagrams and prototypes  90 minutes- Lesson 3: Fresh, healthy snacks | 1 hour- Lesson 1: Design features of familiar products  1 hour- Lesson 2: Significant designer – William Morris  1-2 hours- Lesson 3: William Morris' motifs  2 hours- Lesson 4: Block printing  1-2 hours- Lesson 5: Sewing a hem  1 hour- Lesson 6: Embroidered embellishment | 1 hour- Lesson 1: Using simple machines  2 hours-Lesson 2: Making simple machines |
| Innovate | 45 minutes- Lesson 1: designing a healthy packaged snack  2 hour- Lesson 2: making a healthy packaged snack | 1 hour- Lesson 1: Designing a William Morris-inspired fabric  1-2 hours- Lesson 2: Making a William Morris-inspired fabric | 3 hours- Lesson 1: Designing machine prototypes |
| Express | 45 minutes: Evaluation | 45 minutes: Evaluation | 45 minutes: Evaluation |
| Year 5/6 | | | |
| Term | Advent | Lent 1 | Pentecost |
| Title | ***Moving Mechanisms*** | ***Eat the Seasons*** | ***Make do and mend*** |
| Engage | 90 minutes- Exploring pneumatics | 1 hour- Seasonality | 2 hours- Make do and mend campaign |
| Develop | 90 minutes- Lesson 1: Investigating pneumatics  90 minutes- Lesson 2: Making a pneumatic machine | 1 hour- Lesson 1: Benefits of seasonal eating  1 hour- Lesson 2: Dicing, peeling and grating | 1 hour- Lesson 1: Deconstruct  90 minutes- Lesson 2: Stitch  2 hours- Lesson 3: Repair |
| Innovate | 1 hour- Lesson 1: Designing a pneumatic prototype  90 minutes- Lesson 2: Making a pneumatic prototype | 1 hour- Lesson 1: Designing  90 minutes- Lesson 2: Making | 3 hours- Mrs Sew and Sew’s challenge |
| Express | 90 minutes: Evaluation | 45 minutes: Taste Test Evaluation | 30 minute: Evaluate |

Food Tech

Art and Design

Science