

| <u>Year 1</u>                | <u>Autumn 1</u>  | <u>Autumn 2</u> | <u>Spring 1</u>  | <u>Spring 2</u> | <u>Summer 1</u>  | <u>Summer 2</u> |
|------------------------------|--|-----------------|--|-----------------|--|-----------------|
| <b>Areas of Study</b>        | Homes – 3D modelling   |                 | Moving pictures  |                 | Buildings and structures   |                 |
| <b><u>Literacy Focus</u></b> | Literacy: To be able to write instructions in cooking or making a design.  |                 | Literacy: To be able to write instructions in cooking or making a design.  |                 | Literacy: To be able to write instructions in cooking or making a design.  |                 |
| <b><u>Numeracy Focus</u></b> | Numeracy: Maths using measurements and numbers.  |                 | Numeracy: Maths using measurements and numbers.  |                 | Numeracy: Maths using measurements and numbers.  |                 |
| <b><u>SMSC</u></b>           | RE- celebrating sacred times.  |                 | RE- celebrating sacred times.  |                 | RE- celebrating sacred times.  |                 |
| <u>Year 2</u>                | <u>Autumn 1</u>  | <u>Autumn 2</u> | <u>Spring 1</u>  | <u>Spring 2</u> | <u>Summer 1</u>  | <u>Summer 2</u> |
| <b>Areas of Study</b>        | Sewing - Rangoli Patterns  |                 | Vehicles   |                 | We are bag /fashion designers  |                 |
| <b><u>Literacy Focus</u></b> | Literacy: To be able to write instructions in cooking or making a design.  |                 | Literacy: To be able to write instructions in cooking or making a design.  |                 | Literacy: To be able to write instructions in cooking or making a design.  |                 |
| <b><u>Numeracy Focus</u></b> | Numeracy: Maths using measurements and numbers.  |                 | Numeracy: Maths using measurements and numbers.  |                 | Numeracy: Maths using measurements and numbers.  |                 |
| <b><u>SMSC</u></b>           | RE- celebrating sacred times.  |                 | RE- celebrating sacred times.  |                 | RE- celebrating sacred times.  |                 |
| <u>Year 3</u>                | <u>Autumn 1</u>  | <u>Autumn 2</u> | <u>Spring 1</u>  | <u>Spring 2</u> | <u>Summer 1</u>  | <u>Summer 2</u> |
| <b>Areas of Study</b>        | We are exhibition designers  |                 | Packaging  |                 | Sandwich snacks  |                 |
| <b><u>Literacy Focus</u></b> | Literacy: To be able to write instructions in cooking or making a design.  |                 | Literacy: To be able to write instructions in cooking or making a design.  |                 | Literacy: To be able to write instructions in cooking or making a design.  |                 |
| <b><u>Numeracy Focus</u></b> | Numeracy: Maths using measurements and numbers.  |                 | Numeracy: Maths using measurements and numbers.  |                 | Numeracy: Maths using measurements and numbers.  |                 |
| <b><u>SMSC</u></b>           | PSHE: Charity, what this means by helping others.<br>RE: Learning about the Christianity celebration of Christmas. |                 | PSHE: Charity, what this means by helping others.<br>RE: Learning about the Christianity celebration of Christmas. |                 | PSHE: Charity, what this means by helping others.<br>RE: Learning about the Christianity celebration of Christmas. |                 |

| <u>Year 4</u>                | <u>Autumn 1</u>   | <u>Autumn 2</u> | <u>Spring 1</u>   | <u>Spring 2</u> | <u>Summer</u>   | <u>Summer 2</u> |
|------------------------------|---|-----------------|---|-----------------|---|-----------------|
| <b>Areas of Study</b>        | <b>Moving toys/machines (cams)</b>  |                 | <b>Storybooks, pop-up books with moving parts</b><br><b>Food Technology – Egyptian spices/stew</b>          |                 | <b>Money containers – sewing, making wallets/purse</b>  |                 |
| <b><u>Literacy Focus</u></b> | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 |
| <b><u>Numeracy Focus</u></b> | <b>Numeracy:</b> Maths using measurements and numbers.  |                 | <b>Numeracy:</b> Maths using measurements and numbers.  |                 | <b>Numeracy:</b> Maths using measurements and numbers.  |                 |
| <b><u>SMSC</u></b>           | PSHE: Charity, what this means by helping others.<br>To understand about different cultures and traditions. |                 | PSHE: Charity, what this means by helping others.<br>To understand about different cultures and traditions. |                 | PSHE: Charity, what this means by helping others.<br>To understand about different cultures and traditions. |                 |
| <u>Year 5</u>                | <u>Autumn 1</u>   | <u>Autumn 2</u> | <u>Spring 1</u>   | <u>Spring 2</u> | <u>Summer 1</u>   | <u>Summer 2</u> |
| <b>Areas of Study</b>        | <b>Biscuits for Charity</b><br><b>Story scene in a shoe box</b>   |                 | <b>Viking long boats</b><br><b>Shield designs</b>   |                 | <b>We are Lighting designers</b><br><b>Create moving robots-enter commands &amp; use sensors-</b>           |                 |
| <b><u>Literacy Focus</u></b> | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 |
| <b><u>Numeracy Focus</u></b> | <b>Numeracy:</b> Maths using measurements and numbers.  |                 | <b>Numeracy:</b> Maths using measurements and numbers.  |                 | <b>Numeracy:</b> Maths using measurements and numbers.  |                 |
| <b><u>SMSC</u></b>           | PSHE: Charity, what this means by helping others.   |                 | PSHE: Charity, what this means by helping others.   |                 | PSHE: Charity, what this means by helping others.   |                 |
| <u>Year 6</u>                | <u>Autumn 1</u>   | <u>Autumn 2</u> | <u>Spring 1</u>   | <u>Spring 2</u> | <u>Summer 1</u>   | <u>Summer 2</u> |
| <b>Areas of Study</b>        | <b>Re-cap - Electrical circuits using buzzers, switches.</b><br><b>Create a moving or light up model</b>    |                 | <b>Switched on Unit 6</b><br><b>We are pop up cafe designers</b>  |                 | <b>Food technology-create a dish using example of rations from WW2</b>                                      |                 |
| <b><u>Literacy Focus</u></b> | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 | <b>Literacy:</b> To be able to write instructions in cooking or making a design.                            |                 |
| <b><u>Numeracy Focus</u></b> | <b>Numeracy:</b> Maths using measurements and numbers.  |                 | <b>Numeracy:</b> Maths using measurements and numbers.  |                 | <b>Numeracy:</b> Maths using measurements and numbers.  |                 |
| <b><u>SMSC</u></b>           | Art: creative outlet and expressive interest.<br>PSHE: Charity, what this means by helping others.          |                 | Art: creative outlet and expressive interest.<br>PSHE: Charity, what this means by helping others.          |                 | Art: creative outlet and expressive interest.<br>PSHE: Charity, what this means by helping others.          |                 |

| <u>Year 7</u>  | <u>Autumn 1</u>  | <u>Autumn 2</u>   | <u>Easter 1</u>  | <u>Easter 2</u>  | <u>Summer 1</u>  | <u>Summer 2</u>   |
|--|--|---|--|--|--|---|
| <b>Areas of Study</b>  | Introduction to the different materials.<br>Introduction to designing Key rack fobs. Development of materials knowledge  | Introduction to workshop safety<br>Using tools and machinery<br>Manufacturing Key rack and fobs.<br>Development of practical skills   | Torch Project<br>Introduction to Electronic components.<br>Development of Basic component knowledge  | Using components in a circuit supported soldering, manufacture of torch.<br>Development of Soldering technique   | Development of design skills Desk Tidy project<br>Research QS and Product analysis skills  | Introduction to CAD/CAM manufacture of desk tidy<br>Use of 2D design tools to profile bitmap and raster and cut features      |
| <b><u>Literacy Focus</u></b><br><b><u>Numeracy Focus</u></b> | Keywords material focussed<br>Measurement and accuracy   | Keywords tools and equipment<br>Measurement and accuracy  | Keywords electronic components<br>Resistor Calculations  | Keywords<br>Measurement of torch casing  | Analysis and evaluation techniques<br>Graphical representation of data   | Final evaluation critical thinking skills<br>Accuracy and measure using CAD   |
| <b><u>SMSC</u></b>   | Experience opportunities for creativity<br>Opportunities to be inquisitive   | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation   | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive<br>Providing links with the wider community and the world of work<br>Openness to new ideas and to modify thinking to accommodate them | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation  | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive<br>Openness to new ideas and to modify thinking to accommodate them   | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation |
| <u>Year 8</u>  | <u>Autumn 1</u>  | <u>Autumn 2</u>   | <u>Easter 1</u>  | <u>Easter 2</u>  | <u>Summer 1</u>  | <u>Summer 2</u>   |
| <b>Areas of Study</b>  | Mobile phone project<br>Using research findings<br>Further development of Research skills QS, Product analysis, Future tech and historical change  | Development of design skills and use of CAD software.<br>Detailed use of CAD 2D design Prodesktop and Graphic software for GUI  | Night Light Project<br>Energy sources. Detailed understanding of components and review of energy sources. Basic sustainability   | Using components in a circuit, developing independent soldering, manufacture of Nightlight including CAD/CAM<br>Development of independent CAD skills and soldering skills | Trophy Project<br>Design Skills<br>Development independent Design Skills   | Trophy Project<br>Manufacturing Skills<br>Development Practical Skills use of CAM independently                               |
| <b><u>Literacy Focus</u></b><br><b><u>Numeracy Focus</u></b> | Research methods, Evaluations<br>Graphs and statistics   | Labelling and descriptive text<br>Measurement and accuracy  | Extended writing keywords for energy and sustainability<br>Estimating  | Keywords<br>Identifying resistors codes<br>Use of grids for CAD  | Evaluation and analysis<br>Costing materials   | Practical log<br>Accuracy and Measure   |
| <b><u>SMSC</u></b>   | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive<br>Providing links with the wider community and the world of work<br>Openness to new ideas and to modify thinking to accommodate them | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Providing links with the wider community and the world of work<br>Developing individual self evaluation | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive<br>Openness to new ideas and to modify thinking to accommodate them   | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation  | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive<br>Providing links with the wider community and the world of work<br>Openness to new ideas and to modify thinking to accommodate them | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation |

| <u>Year 9</u>                | <u>Autumn 1</u>  | <u>Autumn 2</u>   | <u>Easter 1</u>   | <u>Easter 2</u>   | <u>Summer 1</u>  | <u>Summer 2</u> |
|------------------------------|--|---|---|---|--|-----------------|
| <b>Areas of Study</b>        | <b>Clock Project</b><br>Develop independence range of sources QS, Product analysis, historical change.   | <b>Clock Project</b><br>Manufacturing including CAM, use of laser cutter and marking out hand skills versus CAD               | <b>MP3 or Board Game Project</b><br>Electronics project component theory and design.  | <b>MP3 or Board Game Project</b><br>Electronics project Manufacturing, including case/ packaging design                       | <b>Mechanical systems</b>  |                 |
| <b><u>Literacy Focus</u></b> | <b>Research methods, Evaluations</b>   | <b>Advertising work descriptive language</b>  | <b>Keywords electronic components</b>   | <b>Keywords and analysis skills</b>   | <b>Keywords Mechanical movement</b>  |                 |
| <b><u>Numeracy Focus</u></b> | <b>Graphs and statistics</b>   | <b>Measurement and Accuracy</b><br><b>Work with geometry</b>  | <b>Resistor Calculations</b>  | <b>Measurement and accuracy</b>   | <b>Calculations and Cam movements geometry</b>   |                 |
| <b><u>SMSC</u></b>           | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive<br>Openness to new ideas and to modify thinking to accommodate them | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation | Experience opportunities for creativity<br>Encouraging pupils to work co-operatively<br>Developing individual self evaluation | Experience opportunities for creativity<br>Develop an understanding of others<br>Opportunities to be inquisitive |                 |

| <u>Year 10</u>               | <u>Autumn 1</u>   | <u>Autumn 2</u>   | <u>Easter 1</u>  | <u>Easter 2</u>                                     | <u>Summer 1</u>   | <u>Summer 2</u>  |
|------------------------------|---|---|--|---|---|--|
| <b>Areas of Study</b>        | <b>Working with Wood<br/>Bird Box Project</b>   | <b>Working with Wood Bird Box Project completion<br/>Working in Metal Tea Light Candle Holder</b>   | <b>Working in Metal Tea Light Candle Holder completion<br/>Electronics Project Air Freshener</b>   | <b>Electronics Project Air Freshener completion</b> | <b>Understanding materials properties and uses</b>  | <b>Introduction to NEA on release of themes<br/>Developing design brief and analysis of task research design eras and materials</b>  |
| <b><u>Literacy Focus</u></b> | <b>Work Diary</b>   | <b>Work Diary</b>   | <b>Work Diary and Keywords</b>   | <b>Work Diary</b>                                   | <b>Keywords</b>   | <b>Research methods, Evaluations</b>   |
| <b><u>Numeracy Focus</u></b> | <b>Accuracy and Measurement</b>   | <b>Accuracy and Measurement</b>   | <b>Accuracy and Measurement</b>  | <b>Accuracy and Measurement</b>                     | <b>Physical properties units of measurement</b>   | <b>Graphs and statistics</b>   |
| <b><u>SMSC</u></b>           | Social factors: social responsibility.<br>Cultural factors: sensitive to cultural influences.<br>Ethical factors: purchased from ethical sources such as FSC.<br>Working collaboratively<br>Experience opportunities for creativity | Social factors: social responsibility.<br>Cultural factors: sensitive to cultural influences.<br>Ethical factors: purchased from ethical sources such as FSC.<br>Recycling.<br>Working collaboratively<br>Experience opportunities for creativity | Social factors: social responsibility.<br>Cultural factors: sensitive to cultural influences.<br>Ethical factors: purchased from ethical sources such as Bioplastics<br>Working collaboratively<br>Experience opportunities for creativity | Experience opportunities for creativity             | Ethical factors and consideration of ecological and social footprint.<br>Social factors: social responsibility.<br>Cultural factors: sensitive to cultural influences | Ethical factors and consideration of ecological and social footprint.<br>Social factors: social responsibility.<br>Cultural factors: sensitive to cultural influences<br>Experience opportunities for creativity<br>Develop an understanding of others |

| <u>Year 11</u>   | <u>Autumn 1</u>  | <u>Autumn 2</u>   | <u>Easter 1</u>   | <u>Easter 2</u>  | <u>Summer 1</u>   | <u>Summer 2</u> |
|--|--|---|---|--|---|-----------------|
| <b>Areas of Study</b>  | <b>NEA Task Research continuation including product analysis and client research.</b>  | <b>NEA Task designing and Evaluation</b>  | <b>NEA Task Final designs and Manufacture</b>   | <b>NEA Task Manufacturing and final testing/ evaluation</b>  | <b>Preparation for exams, past papers, Final Exam</b>   |                 |
| <b><u>Literacy Focus</u></b><br><br><b><u>Numeracy Focus</u></b> | <b>Research methods, Evaluations</b><br><br><b>Graphs and statistics</b>   | <b>Labelling and descriptive text</b><br><br><b>Measurement and accuracy Drawing and modelling techniques (2D and 3D)</b> | <b>Practical Log Photo diary Activity</b><br><br><b>Accuracy and Measure</b>                      | <b>Practical Log Photo diary Activity</b><br><br><b>Descriptive writing techniques</b><br><br><b>Accuracy and measure</b>  | <b>Extended answer techniques</b><br><br><b>% calculations and Graphical challenges</b>                                     |                 |
| <b><u>SMSC</u></b>   | Ethical factors and consideration of ecological and social footprint.<br>Respecting people of different faiths and beliefs.<br>Experience opportunities for creativity<br>Develop an understanding of others | Experience opportunities for creativity<br>Develop an understanding of others<br>Ability to use images/icons.             | Use of CAD support<br>Sustainability, use of resources<br>Experience opportunities for creativity | Ethical factors and consideration of ecological and social footprint.<br>Respecting people of different faiths and beliefs.<br>Experience opportunities for creativity<br>Develop an understanding of others | Ethical factors and consideration of ecological and social footprint.<br>Respecting people of different faiths and beliefs. |                 |