 Design & Technology: Skills Progression Year Two

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Autumn**  | **Spring**  | **Summer 1** | **STEM Week** | **Additional Projects** |
| **Year 2** | **What should be stuck to your fridge?** | **How will your roly-poly move?** | **Should your software speak?** | **How do you like your toast?** |  |
| **BIG task details** | design a fridge magnetset that will appeal to young children.What’s different about these fridgemagnets is that each one is made from layers, which will add considerably to their attractiveness. Each table or group ofchildren will produce one set of fridge magnets and within a group each child will make just one. |  design and make a simple push-along toy (a roly poly) using a mixture of found materials, paper and card. The toy should provide amusement in both its appearance and the ways it moves. It may be for the children themselves or for other younger children. |  to build a multimediasoftware presentation using an authoring program previously introduced during computinglesson time. The presentation should be attractive and easy to use and should be a source of information for younger children.  |  write a specification fortoast that meets the identified preferences of a particular person and then make a serving of toast to that specification. |  |
| **Small tasks** |  **focused practical tasks****2**1Thinking about fridge magnets2 Developing ideas for fridge magnets3 Creating images in layers4 Writing the specfication | **focused practical tasks**1 Exploring rolling toys2 Fixing wheels3 Exploring faces4 Exploring body decoration | **focused practical tasks**1 Investigating existing software2 Finding out the needs of the audience3 Exploring the use of text, images and4 Writing the specification | **focused practical tasks**1 Exploring toast 2 Doing a simple survey3 Analysing the survey results4 Investigating making toast |  |
| **Vocab** | magnet, shape **layer template**, popular , magnetic **finish**, **develop**, **ideas**, **design specification**, **evaluate, survey** | **wheel,** roll, path (of circle, centre, **tube**, features (on a face), wind, glittertravel), straight, zigzag, bracket, slit, weak, expression (on a face)up and down, cylinder strong, easy, difficult, **design, idea, specification, evaluate ,product** | educational, information **experiment**, microphone, **design decisions, test, improvement**audience, **user, evaluate**, authoring **program specification**, content | hot cold dark pale floppy stiffsoft crisp white bread, wholemeal bread, brown preferences, **data**, **popular**, **spinner, specification**,bread, butter, toaster, timer, grills, **survey**, **evaluation, production**heat, permanent change, browning **system, consumer** |  |
| **Tools** | Computer, word processingsoftware, printer  paper, poster paint brushes, felt tips, pencils, treasury tags, thin white card, sharp scissors,PVA glue, adhesive tape, cocktail sticks or wooden spills scissors, thick markers, finesheet, corrugated card, button magnets, corrugated plastic, single-sided scissors, felt | nails, adhesive tape,paper fasteners, paper plates, thin card pencils, scissorsscissors ,hole punch, PVA glue | computer(s), authoring software, microphone(s), digital camera (optional),scanner (optional), pencils. | electric toaster with an accurate timing mechanism or a cancel mechanism, colouring pencils or crayons in a range of brown shades knives for spreading and cutting, bread board, pincers, computer, printer and simple database program. |  |
| **Skills: Design, Make , Evaluate** | design purposeful, functional, appealing products for themselves and other users based on design criteria  generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] explore and evaluate a range of existing products  evaluate their ideas and products against design criteria  | design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups select from and use a range 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, according to their characteristics evaluate their ideas and products against design criteriaexplore and use mechanisms [for example, wheels and axles], in their products.  | design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing and information communication select from and use a range of equipment to perform practical tasks, explore and evaluate a range of existing products  evaluate their ideas and products against design criteria  | design purposeful, functional, appealing products for themselves and other users based on consumer preference generate, develop, model and communicate their ideas through talking, drawing, and mock ups select from and use a range of tools and equipment to perform practical tasks [for example, cutting, spreading, shaping]  select from and use a range of ingredients according to their characteristics explore and evaluate a range of existing products  evaluate their ideas and products against design criteria  |  |
| **Learning purposes** | to develop a product from the stimulusof a commercial idea; t to conduct a simple survey of theirclass related to fridge magnets;t to work as a group; t to think of an image in layers;t techniques of cutting, joining andlayering paper; t to use a template; t to develop simple line images;t to consider why an image might be popular. | to consider the performance andappearance of rolling toys forthemselves and younger children;t about different sorts of rolling motionand how these can be achieved byparticular arrangements of wheels andaxles; t three different ways of fixing a tube toa paper plate; t about the parts of the human face and how these create expressions;t to decorate a paper plate so that it resembles a face with a particularexpression; t to decorate a tube so that it looksappealing when still and when it isrotating.  | to explore the features that makesoftware successful;t to consider the needs of a targetaudience; t to use software tools to design ascreen presentation;t to write a specification for a groupproduct; t to work co-operatively in a smallgroup.  | what happens when breads aretoasted, using sight, smell and touch to experience the changes in the breads;t to identify consumer preferences;t to analyse consumer preferences;t to experiment with different breads,toasting times and spreads;t about production systems. |  |