

Leavening Community Primary School Medium Term Plan

Subject: DT	Number of Sessions: 10	Class: Oak Trees
<p>Y3/4 Most children will be able: to create a simple game</p> <p>Some children who have not made much progress will be able: to design and plan a simple game</p> <p>Some children will have developed further and will be able: to make a simple game to meet the needs of a specific child and use tools and materials competently</p>	<p>Y5/6 Most children will be able: to make a simple game to meet the needs of a specific child and use tools and materials competently</p> <p>Some children who have not made much progress will be able: to create a simple game</p> <p>Some children will have developed further and will be able: to continuously evaluate their game and make changes as appropriate</p>	<p>Curriculum References: Y3/4 <u>Sheet materials product linked to topic</u> Cut slots and internal shapes. Use lolly sticks/cards to make levers and linkages. Use linkages to make movement larger or more varied. Use and explore more complex pop-ups. Create nets.</p> <p><u>Construction materials product linked to topic</u> Incorporate a circuit with a bulb or buzzer into a model. Create shell or frame structures, strengthen frames with diagonal struts. Make structures more stable by giving them a wider base. Prototype frame and shell structures Measure and mark square selection, strip and dowel. Use glue gun under supervision. Make a large scale model</p> <p>Y5/6 <u>Sheet materials product linked to topic</u> Cut slots. Cut accurately and safely to a marked line. Join and combine materials with temporary, fixed or moving joinings. Use a craft knife, cutting mat and safety ruler under one to one supervision.</p>

Leavening Community Primary School Medium Term Plan

		<p>Choose an appropriate sheet material for the purpose.</p> <p><u>Construction product linked to topic</u></p> <p>Use a bradawl to mark hole positions</p> <p>Use a hand drill</p> <p>Cut strip wood, dowel, square section wood accurately</p> <p>Join materials</p> <p>Incorporate a motor and a switch into a model</p> <p>Control a model using an ICT program</p> <p>Use a cam to make an up and down mechanism</p> <p>Build a framework using a range of materials</p> <p>Use a glue gun under supervision.</p> <p>Make a large scale model</p>
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Learning Objectives:	Progression of skills:	Planned Learning Experiences:	Assessment Opportunities and Learning Outcomes:	Resources:	Cross-Curricular Links:
<i>I can design a game to stop people from feeling bored.</i>		<p><i>Before - Look at examples of board games on the internet. Session One</i></p> <p>Tell the children to work in groups of four and to write a list of activities that would alleviate boredom. Ask a member of each group to feed back their list to the rest of the class while you write it on the board.</p>	<p><i>A finished game to alleviate boredom, containing a set of instructions.</i></p>	<p><i>Selection of games (invite children to bring in their favourite game)</i></p> <p><i>Paper</i></p> <p><i>Whiteboard</i></p> <p><i>Masking tape</i></p> <p><i>Game specification sheets</i></p> <p><i>Wood</i></p> <p><i>Card</i></p> <p><i>Abrasive paper</i></p> <p><i>Sting</i></p> <p><i>PVA glue</i></p> <p><i>Glue gun</i></p> <p><i>Pencils</i></p> <p><i>Saws</i></p>	<p>Literacy</p> <p>Writing instructions for playing with the toy or game fits in well with objectives in term 1: t to write clear instructions; t to improve the cohesion</p>

Leavening Community Primary School Medium Term Plan

<p><i>I can plan my game; choosing appropriate materials, tools and techniques.</i></p> <p><i>I work accurately to measure, make cuts and make holes.</i></p> <p><i>I can make an appealing product which uses electrical and mechanical components; and adapt my work when appropriate.</i></p> <p><i>I can evaluate my design.</i></p>		<p>Children to work in groups of four and discuss the games so that they can fill in the table with ticks and crosses – a tick if the game or toy needs the feature listed, a cross if it doesn't. You might fill in an example. When the tables are filled in ask the class what features they think are needed for a game that will prevent boredom. Pupils will be able to use these tables as a means of analysing their own game ideas.</p> <p>Session two Tell children to work in pairs and ask each other the following questions. They write down the answers along with the name of the person answering the questions. t What hobbies do you have? t What interests</p>		<p><i>Saw board</i> <i>Felt tips</i> <i>Black markers</i></p>	<p>of written instructions through the use of link phrases and organisational devices such as sub-headings and numbering, providing a suitable purpose and audience for the writing. If this work was not done in term 1 it would give excellent opportunities for revising and consolidating writing instructions. Numeracy There are many opportunities for simple measuring</p>
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Leavening Community Primary School Medium Term Plan

	<p>do you have? t What are your favourite TV programmes? t Which TV programme do you hate? t What is your favourite music? t Which band do you hate?</p> <p>Session three Each child should produce a specification dealing with the following: t who the game/toy is for (each child should choose another class member); t what sort of game/toy it will be; t how it will be played. There is a ready-to-copy 'Game/toy specification' sheet that you may wish to use with some children. Children who finish early or who require an extra challenge might be asked to do the following. t Think about how the toy/game might be packaged for sale in a</p>			<p>and best-fit assembly. The key objectives that the children will be using during this project are: t to use vocabulary related to measures; t to suggest suitable units to estimate and measure length; t to measure and draw lines to the nearest 0.5 cm. The children will also be constructing models with increasing accuracy. When children use the "what if" procedure for</p>
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Leavening Community Primary School Medium Term Plan

	<p>high street shop and produce a sketch or mock-up of the packaging. t Think about how the packaging may incorporate rules and suggestions for how to play the game or use the toy and produce these rules and suggestions to go on the packaging.</p> <p>Session four Tell the children to work in pairs so that the designer/maker of the toy/game is paired with the child who will play with the toy. Tell the children to take it in turns to use the toy/game. They should then answer the following questions using both the specification and their experience of using the toy/game. t How well did it do what it was supposed to do? t How</p>			<p>exploring structures they will develop understanding of how 2D shape can be transformed into 3D form.</p>
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Leavening Community Primary School Medium Term Plan

		<p>much did it look like it was supposed to look? t How much did it appeal to those it was supposed to appeal to?</p> <p>Session five Pupil activity The children should discuss the questions in groups and when they have finished you should ask each group to make a short report to the class. The class should agree a statement based on these reports for improvement for their next design & technology unit.</p>			
<p><i>I can design a game to stop people from feeling bored.</i></p> <p><i>I can plan my game; choosing</i></p>		<p><i>Before - Research board games on the internet and categorise them. Think about: who they are aimed at (age group, gender)type of game (memory, skill, knowledge)</i></p> <p><i>Session One</i></p>			

Leavening Community Primary School Medium Term Plan

<p><i>appropriate materials, tools and techniques. Thinking carefully about the audience it will appeal to and alternative plans if my first one goes wrong.</i></p> <p><i>I can use a range of tools and equipment competently.</i></p>		<p>Tell the children to work in groups of four and to write a list of activities that would alleviate boredom. Ask a member of each group to feed back their list to the rest of the class while you write it on the board. Children to work in groups of four and discuss the games so that they can fill in the table with ticks and crosses – a tick if the game or toy needs the feature listed, a cross if it doesn't. You might fill in an example. When the tables are filled in ask the class what features they think are needed for a game that will prevent boredom. Pupils will be able to use these tables as a means of analysing their own game ideas.</p> <p>Session two</p>			
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Leavening Community Primary School Medium Term Plan

<p><i>I can make a simple prototype if appropriate.</i></p> <p><i>I can evaluate appearance and function and check it against my criteria.</i></p>		<p>Tell children to work in pairs and ask each other the following questions. They write down the answers along with the name of the person answering the questions.</p> <p>t What hobbies do you have? t What interests do you have? t What are your favourite TV programmes? t Which TV programme do you hate? t What is your favourite music? t Which band do you hate?</p> <p>Session three Each child should produce a specification dealing with the following: t who the game/toy is for (each child should choose another class member); t what sort of game/toy it will be; t how it will be played. There is a ready-to-copy 'Game/toy specification' sheet that</p>			
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Leavening Community Primary School Medium Term Plan

	<p>you may wish to use with some children. Children who finish early or who require an extra challenge might be asked to do the following. t Think about how the toy/game might be packaged for sale in a high street shop and produce a sketch or mock-up of the packaging. Think about how the packaging may incorporate rules and suggestions for how to play the game or use the toy and produce these rules and suggestions to go on the packaging.</p> <p>Session four Tell the children to work in pairs so that the designer/maker of the toy/game is paired with the child who will play with the toy. Tell the children to take it in turns to use the</p>			
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Leavening Community Primary School Medium Term Plan

		<p>toy/game. They should then answer the following questions using both the specification and their experience of using the toy/game. t How well did it do what it was supposed to do? t How much did it look like it was supposed to look? t How much did it appeal to those it was supposed to appeal to?</p> <p>Session five Pupil activity The children should discuss the questions in groups and when they have finished you should ask each group to make a short report to the class. The class should agree a statement based on these reports for improvement for their next design & technology unit.</p>			
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Key questions