

# Year 7 - Name Plate

NOVICE	<ul style="list-style-type: none"><li>✓ Pupils can name a few different timbers and manufactured boards.</li><li>✓ They consider the work of others, although this may make little contribution to their design thinking.</li><li>✓ Pupils work safely, demonstrating a low level of skill, often requiring individual support or guidance. They use a few tools and make a name plate of low quality.</li><li>✓ They measure a feature of their name plate.</li><li>✓ Pupils test the overall performance of their name plate and make a simple assessment of its performance.</li></ul>
CAPABLE	<ul style="list-style-type: none"><li>✓ Pupils can name some different timbers and manufactured boards and state some properties and uses of each.</li><li>✓ They carry out a basic investigation into the work of others which, to some extent, informs further design stages.</li><li>✓ Pupils work safely and demonstrate a basic level of skill with a few tools and materials.</li><li>✓ They make a few measurements for quality control purposes and make a name plate of basic quality.</li><li>✓ Pupils test a few features of the name plate and make a basic evaluation of their final name plate.</li></ul>
EXPERT	<ul style="list-style-type: none"><li>✓ Pupils can name some different timbers and manufactured boards, state their properties and uses and suggest alternative materials for certain applications.</li><li>✓ They carry out a basic investigation into the work of others which informs further design stages.</li><li>✓ Pupils work safely, demonstrating an adequate level of skill and mostly using the correct tools, materials and equipment.</li><li>✓ They carry out some measurements and a few tests on the name plate for quality control purposes.</li><li>✓ There is some evidence of analysis and evaluation at some different stages of the project.</li><li>✓ Pupils test some of the main features of the design and analyse and evaluate their final name plate.</li><li>✓ They consider a few points of feedback from third parties and identify a few modifications to the design which were a result of testing, analysis and evaluation.</li></ul>

# Year 7 - Retro Racing Car

<p style="text-align: center;"><b>NOVICE</b></p>	<ul style="list-style-type: none"> <li>✓ Pupils consider the work of others through completing a basic product analysis.</li> <li>✓ They select a few of the materials or components to make their retro racing car (which may not be appropriate)</li> <li>✓ They identify the main process that is required to make it.</li> <li>✓ Pupils work safely, demonstrating a low level of skill, often requiring individual support or guidance. They use a few tools and make a retro racing car of low quality.</li> <li>✓ They measure a feature of their retro racing car.</li> <li>✓ Pupils test the overall performance of their retro racing car and make a simple assessment of its performance.</li> </ul>
<p style="text-align: center;"><b>CAPABLE</b></p>	<ul style="list-style-type: none"> <li>✓ Pupils can name some different timbers and manufactured boards and state some properties and uses of each.</li> <li>✓ They justify the selection of materials or components to make their retro racing car (which may not be appropriate)</li> <li>✓ They produce a basic manufacturing plan.</li> <li>✓ They carry out a basic product analysis with some justification.</li> <li>✓ Pupils work safely and demonstrate a basic level of skill with a few tools and materials. They make a few measurements for quality control purposes and make a retro racing car of basic quality.</li> <li>✓ Pupils test a few features of the retro racing car and make a basic evaluation of their final retro racing car.</li> </ul>
<p style="text-align: center;"><b>EXPERT</b></p>	<ul style="list-style-type: none"> <li>✓ Pupils can name some different timbers and manufactured boards, state their properties and uses and suggest alternative materials for certain applications.</li> <li>✓ They carry out a well justified product analysis.</li> <li>✓ They carry out some research into the working properties and availability of a few materials and can justify the selection of materials and components to make their retro racing car, some of which are suitable for the purpose.</li> <li>✓ They produce a manufacturing plan and explain the reasons for using a few of the processes included in this.</li> <li>✓ Pupils work safely, demonstrating an adequate level of skill and mostly using the correct tools, materials and equipment.</li> <li>✓ They carry out some measurements and a few tests on the retro racing car for quality control purposes.</li> <li>✓ There is some evidence of analysis and evaluation at some different stages of the project.</li> <li>✓ Pupils test some of the main features of the design and analyse and evaluate their final retro racing car.</li> <li>✓ They consider a few points of feedback from third parties and identify a few modifications to the design which were a result of testing, analysis and evaluation.</li> </ul>

# Year 7 - N.E.R.F. Design

<b>NOVICE</b>	<ul style="list-style-type: none"> <li>✓ They can identify a user/client and they produce a simple statement of what is required as the design brief.</li> <li>✓ Pupils consider the work of others through completing a basic product analysis.</li> <li>✓ They produce a simple design specification, listing a few criteria. They generate a design idea, labelling this with a few descriptive comments about aesthetics. They use a single design strategy and communicate their ideas using a single method.</li> <li>✓ They can use a 2D or 3D modelling technique (including CAD if appropriate) and test one aspect of their design.</li> <li>✓ They select a few of the materials or components to make their prototype (which may not be appropriate).</li> <li>✓ Pupils work safely, demonstrating a low level of skill, often requiring individual support or guidance. They use a few tools and make a prototype of low quality.</li> <li>✓ Pupils test the overall performance of their prototype and make a simple assessment of its performance.</li> </ul>
<b>CAPABLE</b>	<ul style="list-style-type: none"> <li>✓ They identify a user/client and state a few of the user/client's needs and wants.</li> <li>✓ They generate a few design ideas, although there is a high degree of design fixation, annotating these with a few comments about functionality, aesthetics and innovation.</li> <li>✓ They use a single design strategy and use a few techniques to experiment with and communicate their ideas.</li> <li>✓ Pupils use a few 2D/3D modelling techniques (including CAD if appropriate) and use a few methods to test that their design ideas meet a few of the requirements.</li> <li>✓ They justify the selection of materials or components to make their prototype (which may not be appropriate).</li> <li>✓ They carry out a basic product analysis with some justification.</li> <li>✓ Pupils work safely and demonstrate a basic level of skill with a few tools and materials.</li> <li>✓ Pupils test a few features of the prototype and make a basic evaluation of their final prototype.</li> </ul>
<b>EXPERT</b>	<ul style="list-style-type: none"> <li>✓ They can identify a user/client that is partially relevant to the product.</li> <li>✓ They carry out a well justified product analysis.</li> <li>✓ Pupils can produce an adequate design brief that shows some relevance to the context provided and includes a few of the user/client's needs and wants.</li> <li>✓ They produce a design specification with several criteria, justifying some criteria in terms of the needs and wants of the user/client. Their specification has some influence on some subsequent design stages.</li> <li>✓ They generate some imaginative design ideas, with little design fixation. They label most of their ideas with some comments about functionality, aesthetics and innovation.</li> <li>✓ They use some different techniques to carry out experimentation and communicate ideas and explore the use of at least two different design strategies.</li> <li>✓ Pupils use some 2D/3D modelling techniques (including CAM if appropriate) to develop their ideas and use a range of methods to test that their design ideas meet some of the requirements.</li> <li>✓ They carry out some research into the working properties and availability of a few materials and can justify the selection of materials and components to make their prototype, some of which are suitable for the purpose.</li> <li>✓ Pupils work safely, demonstrating an adequate level of skill and mostly using the correct tools, materials and equipment.</li> <li>✓ There is some evidence of analysis and evaluation at some different stages of the project.</li> <li>✓ Pupils test some of the main features of the design and analyse and evaluate their final prototype.</li> <li>✓ They consider a few points of feedback from third parties and identify a few modifications to the design which were a result of testing, analysis and evaluation.</li> </ul>

# Year 7 - Block-Bots

<p style="text-align: center;"><b>NOVICE</b></p>	<ul style="list-style-type: none"> <li>✓ Pupils can name some different timbers and manufactured boards.</li> <li>✓ Pupils consider the work of others through completing a basic product analysis.</li> <li>✓ They select a few of the materials or components to make their Block-Bot (which may not be appropriate)</li> <li>✓ They generate a design idea, labelling this with a few descriptive comments about aesthetics.</li> <li>✓ They identify the main process that is required to make it.</li> <li>✓ Pupils work safely, demonstrating a low level of skill, often requiring individual support or guidance. They use a few tools and make a Block-Bot of low quality.</li> <li>✓ They measure a feature of their Block-Bot.</li> <li>✓ Pupils test the overall performance of their Block-Bot and make a simple assessment of its performance.</li> </ul>
<p style="text-align: center;"><b>CAPABLE</b></p>	<ul style="list-style-type: none"> <li>✓ Pupils can name some different timbers and manufactured boards and state some properties and uses of each.</li> <li>✓ They justify the selection of materials or components to make their Block-Bot (which may not be appropriate)</li> <li>✓ They generate a few design ideas, although there is a high degree of design fixation, annotating these with a few comments about functionality, aesthetics and innovation.</li> <li>✓ They produce a basic manufacturing plan.</li> <li>✓ They carry out a basic product analysis with some justification.</li> <li>✓ Pupils work safely and demonstrate a basic level of skill with a few tools and materials. They make a few measurements for quality control purposes and make a Block-Bot of basic quality.</li> <li>✓ Pupils test a few features of the Block-Bot and make a basic evaluation of their final Block-Bot.</li> </ul>
<p style="text-align: center;"><b>EXPERT</b></p>	<ul style="list-style-type: none"> <li>✓ Pupils can name some different timbers and manufactured boards, state their properties and uses and suggest alternative materials for certain applications.</li> <li>✓ They carry out a well justified product analysis.</li> <li>✓ They carry out some research into the working properties and availability of a few materials and can justify the selection of materials and components to make their Block-Bot, some of which are suitable for the purpose.</li> <li>✓ They generate some imaginative design ideas, with little design fixation. They label most of their ideas with some comments about functionality, aesthetics and innovation.</li> <li>✓ They produce a manufacturing plan and explain the reasons for using a few of the processes included in this.</li> <li>✓ Pupils work safely, demonstrating an adequate level of skill and mostly using the correct tools, materials and equipment.</li> <li>✓ They carry out some measurements and a few tests on the Block-Bot for quality control purposes.</li> <li>✓ There is some evidence of analysis and evaluation at some different stages of the project.</li> <li>✓ Pupils test some of the main features of the design and analyse and evaluate their final Block-Bot.</li> <li>✓ They consider a few points of feedback from third parties and identify a few modifications to the design which were a result of testing, analysis and evaluation.</li> </ul>