| |   | MAKING |   |   |
|---|---|---|---|---|
| Acquiring | I understand the design brief with some support<br>I understand the specification with some explanation<br>I can produce different design ideas<br>My design ideas are sketched and show some use of colour | I can name some of the tools I use.<br>I can name the main material I use.<br>I need reminding about health and safety rules.<br>My practical skills show some degree of accuracy. | I can say what is good about my product.<br>I can say how my product would be used.<br>With some guidance I can suggest things that could be improved. | I understand the properties of some of the materials I have used.<br>With some support I understand:<br>• Mechanical systems<br>• Electronic systems<br>• CAD/CAM |
| Developing | I understand the design brief and user needs with some guidance<br>I can use a simple specification to help me design ideas<br>My design ideas are sketched, show some use of colour and are annotated. | I can name some of the tools I use.<br>I can explain why I am using certain materials.<br>I can name some of the skills I am using in my practical work.<br>With some guidance I can work in a safe manner. My practical work shows some skill and some accuracy. | I can say what is good about my product.<br>I can say how my product would be useful to the end user.<br>Using feedback I can suggest things that could be better about my product. | I understand the properties of the materials I have used.<br>With guidance and prompting I understand:<br>• Mechanical systems<br>• Electronic systems<br>• CAD/CAM |
| Securing | I understand the design brief and user needs.<br>I can write my own simple specification.<br>I can produce different design ideas and improve them.<br>My design ideas are sketched, they are annotated and mention materials and processes. | I can name some tools and describe what they are used for.<br>I can name the materials that I am using.<br>I work safely and follow the health and safety rules.<br>My practical work is mostly accurate. | I know how my product could benefit the end user.<br>I am aware how my product and it's materials could affect the environment.<br>I have looked at existing products to helpme develop my own ideas | I understand the properties of all the materials I have used.<br>I understand some mechanical systems and how things work.<br>I understand basic electronic systems.<br>I understand CAD/CAM and I can explain why it is used. |
| Consolidating | I use research to help identify user needs.<br>I have a good understanding of the design brief.<br>I can use research to help me write my own specification.<br>I can produce different design ideas and improve on them<br>My ideas are well annotated and mention materials and processes | I can give reasons for the tools that I am using.<br>I can explain why I am using certain materials.<br>I can name the skills that I am using.<br>My practical work is accurate and has a good surface finish. | I know how my product will benefit the end user.<br>I am aware of the environmental impact of my product and my responsibilities as a designer.<br>I can evaluate my work using the original specification. | I have a good understanding of the qualities of the materials I have used.<br>I understand how my product works and have knowledge of some mechanical systems.<br>I can use simple electronic systems in my work.<br>I understand how CAD/CAM can be used to improve the quality of a product. |
| Extending | I understand moral, environmental, social and sustainability issues.<br>I can solve a design situation by writing a brief and specification.<br>I can use research to inform and develop my ideas allowing me to produce creative responses.<br>I present my ideas in a variety of ways using ICT, sketching and isometric drawing. | I can select appropriate tools for my practical work.<br>I can explain why I am using certain materials describing their properties.<br>I can apply a variety of skills to my practical work..<br>My practical work is very accurate and has a good surface finish. | I know how my product will benefit the end user and society.<br>I understand the responsibilities of designers to the environment.<br>I can test and evaluate my product against the original specification. | I have a good understanding of the qualities of the materials I have used.<br>I have a good understanding of mechanical systems in terms of tension, force and torsion.<br>I can use simple electronic systems in my work and describe input/output.<br>I understand how CAD/CAM can be used to improve the quality of a product. |