

Homework – Resistant materials

This is your homework for Resistant materials.

Task: Design an environmental house of the future that needs no energy or services to be supplied. Show how energy can be generated, how water can be collected and stored.

Your house of the future might have solar panels, wind turbines and a way of collecting rain water. Use an A4 sheet of paper, use colour to present your drawings well. Add lots of detail.

It would be a good idea to do some research before you start your design. There are some interesting examples on the internet. If you have internet access try searching for 'House of the future' in Google videos.

You can get a higher level by evaluating your work. To do this explain and label the good parts of your design, label which parts are less good and explain how they could be improved.

Your work will be marked on the quality of your design ideas, how well you use equipment (coloured pencils, use of ruler and compasses) and the quality of your presentation. The full level descriptors are on the next page.

If you need any assistance please see your teacher.



What level are you working at?

2

3

4

5

6

Ideas

<p>I sketched some basic design ideas.</p>	<p>I produced some design ideas using sketching and some words.</p>	<p>I produced a variety of designs using words and labelled sketches. I evaluated my designs.</p>	<p>I used discussion, drawing and modelling to help me design ideas. I evaluated my designs.</p>	<p>I made models and detailed drawings to explore and test my design thinking. I thoroughly evaluated my designs.</p>
<p>I selected the correct tools and equipment.</p>	<p>I used tools and equipment with some accuracy.</p>	<p>I used tools and equipment with accuracy.</p>	<p>I worked with a range of tools, equipment, materials and components with precision.</p>	<p>I worked with a range of tools, materials, equipment, components and processes and understood their characteristics.</p>
<p>I produced drawings that communicated my ideas. My work is untidy.</p>	<p>I produced drawings with some accuracy.</p>	<p>I produced drawings that communicate my ideas. Some of my work is well presented.</p>	<p>I produced accurate drawings that communicate my ideas. The majority of my work is well presented.</p>	<p>I produced accurate and detailed drawings that communicate my ideas. All work is well presented.</p>

**Use of tools
Equipment**

**Drawing &
presentation**