



Subject: Design Technology

Micro Living

Overarching Topic:			
<p>Why is this topic being studied at this time?</p> <p>How does it fit into the wider subject curriculum?</p>	<p>Students will be introduced to the issues with regards to the concept of the housing crisis in the UK and other countries around the world. They will be able to analyse the architecture and layout of buildings and rooms made to accommodate as many people as possible within the smallest space. With different techniques being used to allow students to truly understand the gravity of the situation, they will be able to create CAD models of houses/apartments which can both be efficient with space and comfortable.</p> <p>This project will incorporate social issues also mentioned within the geography curriculum regarding the social issues of the housing crisis and they will be able to consider this when attempting to grasp the need for change and adaptation. Mathematics is also a subject which can be related through the measuring of spaces and calculating the necessary area that they would need to be able to live comfortably.</p>		
	Essential	Core	Ambitious
<p>The Big Questions (What questions will students be able to answer upon mastery of the topic?)</p>	<p>Do I understand the housing crisis?</p> <p>Can I consider the basic needs that people must have the space for in their homes?</p> <p>Can I understand the concept of inclusive designing?</p> <p>Can I create a CAD model of a house which saves space where possible?</p>	<p>Do I understand the housing crisis and can think of some basic ways in which to accommodate peoples in these spaces?</p> <p>Do I understand why people still want to live in these small spaces?</p> <p>Can I understand the necessary functions of a home and apply some of these to designs for a micro living environment?</p> <p>Can I understand the concept of inclusive designing and apply a method of this in my design?</p> <p>Can I create a CAD model of an apartment which focusses on saving more space and adapting parts of a house to be multi-functional and adaptable?</p>	<p>Can I appreciate the concept of the housing crisis on an international scale and begin to apply some of these issues to designing of an apartment?</p> <p>Can I understand and incorporate all necessary requirements of a home and begin to adapt not only the environment but the products themselves within a micro home?</p> <p>Can I understand the concept of inclusive designing and apply this in multiple aspects within the design of my apartment?</p> <p>Can I create a detailed and high-level CAD model of an apartment concept - with consideration of scale - that would be able to be applied to existing buildings and situations I may find myself in later in life?</p> <p>Can I create a multi-functional product that someone in a micro home would be able to own</p>

			and use which follows the key requirements for a space efficient product?
The Key Skills/ Techniques	The sophistication and application of skills will become more advanced as students' progress through the essential, core and ambitious knowledge		
	Skill/Technique	How will this skill be developed?	
	Researching	Students will understand several effective research methods which can positively affect their designing of their micro homes. These research methods will include using Google, watching YouTube videos and real-life representations of space and demos and the analysis of existing products.	
	Sketching	Students will use the skills learnt from the sketching skills project earlier in the year to produce a detailed sketch of their micro home designs. They will be encouraged to revisit Isometric projection and the characteristics of this sketching technique to allow them to communicate their ideas effectively.	
	CAD modelling	Students will use Computer Aided Design to be able to model a 3D perspective of their ideas. This can allow them to appreciate the need and utility of CAD software and can use the program to also envision the materials that could be used and what the overall structure could look like.	