

# WORKSHOP OUTLINE 1 OF 6 - LAUNCH



## INTRODUCTION

Design Ventura workshop outlines have been created to support teachers in delivering the project to their students. They are intended to support the major milestones within the project. We use the term 'workshop' instead of 'lesson' to encourage a creative and enterprising learning environment. We encourage teachers to edit the outlines according to the time available and the learning needs of the class. Suitably broad learning objectives and student success criteria have been outlined for this purpose. Assessment opportunities have been highlighted in the right-hand column.

All activities are suitable for use with Key Stage 3 and Key Stage 4 students, with further suggestions included for more in depth learning at Key Stage 4. All content has been developed in line with national curriculum and 2017 GCSE subject content guidelines.

## WORKSHOP FOCUS:

**The focus of this workshop is to support students as they begin to work as a team, and in their initial responses to the design brief.**

## TIME REQUIREMENTS:

This workshop is planned for one double lesson (90-120 minutes), but can be easily adapted to suit individual needs by omitting activities.

## WORKSHOP PLAN:

<b>Session Aims</b>	<ul style="list-style-type: none"> <li>• Introduce the project brief</li> <li>• Introduce team working and help individual students recognise how to use their strengths to contribute to a team</li> <li>• Provide insights into professional design and a 'live' design context</li> <li>• Provide the context for understanding the needs of the user</li> </ul>
<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Understand the project brief</li> <li>• Understand how designers work in teams and make individual and group contributions to the design process</li> <li>• Know how to investigate the design and business context and why it is important in design</li> <li>• Know what is meant by user centred design</li> </ul>
<b>Student success criteria</b>	<ul style="list-style-type: none"> <li>• Teams have been established and each member assigned a role</li> <li>• Each student has contributed to the team's initial response to the design brief</li> <li>• Students have begun to identify the look and feel of the Design Museum and Shop</li> <li>• Teams have identified the user that they will design for and some of the key needs of their user</li> </ul>
<b>Employability Skills</b>	Independent inquiry Collaborative working Considering the needs of others Critical thinking Considering real world issues
<b>Design Ventura resources</b>	Introductory film <a href="https://vimeo.com/204376277">https://vimeo.com/204376277</a> Design Ventura Brief film <a href="https://ventura.designmuseum.org">https://ventura.designmuseum.org</a> Design Ventura full brief as text

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	<p><a href="https://ventura.designmuseum.org/resources/student-brief-2017/">https://ventura.designmuseum.org/resources/student-brief-2017/</a>                  User profiles <a href="https://ventura.designmuseum.org/resources/design-museum-shop-information/">https://ventura.designmuseum.org/resources/design-museum-shop-information/</a>                  Handling Collection notes  <a href="https://ventura.designmuseum.org/resources/handling-collection-notes-2017/">https://ventura.designmuseum.org/resources/handling-collection-notes-2017/</a>                  DM Shop film <a href="https://vimeo.com/226438544">https://vimeo.com/226438544</a>                  DM Shop website <a href="https://designmuseumshop.com/">https://designmuseumshop.com/</a></p>
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		<b>Assessment opportunities + curriculum links</b>
<b>1. INTRODUCTION TO DESIGN VENTURA</b>		
Introduce students to Design Ventura <a href="https://vimeo.com/204376277">https://vimeo.com/204376277</a>		

<b>2. TEAM WORKING</b>		
Organise students into teams of 4-6. Explain that they will each have roles and responsibilities within the team.		

<b>3. THE VENTURA BRIEF</b>		
Show Design Ventura Brief film [film will be live in September 2017] In their teams ask students to agree what the brief specified in relation to: <ul style="list-style-type: none"> <li>• The target audience</li> <li>• The business context for the design and what kinds of products are sold there</li> <li>• Sustainability</li> <li>• Costing and budget</li> <li>• Manufacturing</li> </ul>		Teacher/peer questioning
Discuss the feedback with the group and agree on the 5 most important points from the Ventura Brief.		Peer feedback
Ask students to list the design constraints.		



<p><b>4. TEAM WORKING – ORGANISING ROLES AND RESPONSIBILITIES</b></p>	
<p>Ask students to agree which roles they will take responsibility for within their teams. These are the roles we recommend for team members participating in Design Ventura:</p> <ul style="list-style-type: none"> <li>• <b>Project Manager</b> – responsible for making sure that all aspects of the design process are completed on schedule</li> <li>• <b>Design Manager</b> – responsible for organising and finalising all aspects of the design (NB all team members should be involved in the design of the product)</li> <li>• <b>Finance Manager</b> – responsible for planning and organising the costing and budget aspects of the design</li> <li>• <b>Communications Manager</b> – responsible for overall presentation of the design and organisation of the team pitch</li> </ul> <p>For more specific activities around team working and deciding on team roles see:</p> <p>Team Roles Responsibilities  <a href="https://ventura.designmuseum.org/resources/team-role-descriptions/">https://ventura.designmuseum.org/resources/team-role-descriptions/</a></p> <p>Team Ice Breakers  <a href="https://ventura.designmuseum.org/resources/team-icebreakers/">https://ventura.designmuseum.org/resources/team-icebreakers/</a></p>	

<p><b>5. THE BUSINESS CONTEXT – THE DESIGN MUSEUM SHOP</b></p>	
<p>Show students the Design Museum Shop film  <a href="https://vimeo.com/226438544">https://vimeo.com/226438544</a></p> <p>Ask students to write down the four most important things that they will need to consider when designing a product to be sold in the Design Museum Shop.</p> <p>Discuss the ‘look and feel’ of the Shop. Does it tell students anything about the style and design of the products sold there? Why might this be important for their designing?</p> <p>Using the Handling Collection or internet based research of products sold in the Design Museum Shop, ask students to work in pairs to find one product to research. As them to record:</p> <ul style="list-style-type: none"> <li>• The product information – function, price, materials, style</li> <li>• Who the intended user is – they could consider how the product itself communicates its suitability for the user</li> <li>• What makes the product suitable for the Design Museum Shop</li> <li>• What are the sustainability credentials of the product – consider materials, function, manufacture, end of life</li> </ul> <p>Ask students to present their findings to the group.</p> <p>The Design Museum Shop Information presentation  <a href="https://ventura.designmuseum.org/resources/design-museum-shop-information/">https://ventura.designmuseum.org/resources/design-museum-shop-information/</a>] and Location Research Worksheet  <a href="https://ventura.designmuseum.org/resources/location-research-">https://ventura.designmuseum.org/resources/location-research-</a></p>	<p>Student work Questioning Teacher/peer feedback</p> <p>Student work</p>



<p><a href="#">worksheet/</a>] can also be used.</p> <p><b>Key Stage 4:</b>          Investigate the work of one of the following designers whose products are sold in the Design Museum Shop:          Philippe Starck          Marimekko          John Pawson          Issey Miyake          Thomas Heatherwick</p> <p>What products has this person or company designed? Why is their work seen as iconic? Are any of their designs pioneering? How have they influenced other designers? How have they influenced the way that people live or use products?</p> <p><b>Plenary and Home Learning activities:</b>          Ask students to identify as many adjectives as they can in relation to the following design factors that relate to a product sold in the Design Museum Shop (examples are given):          Function – (simple, innovative...)          Style – (minimal, classic...)          Size – (small, compact, portable...)          Materials – (sustainable, bright, hard-wearing...)</p> <p>Give students an image of a generic product – stool, spoon, cup – and ask them to redesign it (changing shape, colour, size, materials etc) to suit the ‘look and feel’ of the Design Museum Shop.</p> <p>Ask students to come up with a list of at least 5 adjectives to describe the ‘look and feel’, of the Shop.</p>	
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<p><b>6. User Centred Design</b></p>	
<p>Watch the Target Audience film  <a href="https://vimeo.com/170179537">https://vimeo.com/170179537</a></p> <p>Explain the principles of user centred design and how product designers use them to design products that meet the needs and fit the behaviours of users.</p> <p>Provide each group with the three user profiles.</p> <p>Ask students to identify one product from the Handling Collection or the Design Museum Shop that is suitable for each user group. They should be able to explain at least 4 reasons for their choice. They could consider:</p> <ul style="list-style-type: none"> <li>• Function</li> <li>• Materials</li> <li>• Ergonomics – Size/ shape</li> <li>• Product branding</li> </ul> <p>Ask students to suggest at least two things that could be improved to make the product more suitable for the user group. They should be able to explain reasons for their improvements.</p>	<p>Student feedback          Teacher/peer questioning          Student work</p>



<p>Ask students to select one product from the Collection and make alterations to make the design suitable for a different user group.</p> <p>Ask each team to select one user group that they will design for. Explain that user centred design (UCD) means that they will design a product for this specific group and gather feedback on their designing at key points during the process.</p> <p>Ask students to analyse the lifestyle of the selected user group. How do they work or study? How do they eat/wash/cook? What do they do for entertainment? How do they play? What are their lifestyle choices? What are their values and beliefs? This could involve interviewing someone who fits the user group, or using a questionnaire to gather data on their target audience. Lesson time can be used to plan how the teams will gather this information.</p> <p>Ask students to identify the safety needs of their user group. How will they ensure that risks are minimised and the product is safe for all users?</p>	<p>Student work</p> <p>Student work</p>
<p><b>Key stage 4:</b> Ask students to research the social, moral, cultural, social and economic factors that are associated with a person who fits one of these user groups. How might they impact the design of their product?</p> <p><b>Plenary and home learning activities:</b></p> <p>Create a mood board, using images and annotation, of the needs and wants of the user group you have selected. You could focus your attention on describing one or two people who belong to this user group. What does their day look like, what would help or make their day easier or more fun?</p> <p>Give students an image of a generic product – stool, spoon, cup – and ask them to redesign it (changing shape, colour, size, materials etc) to suit their target user.</p> <p>Plan and carry out an interview of someone who belongs to the user group you have selected – consider each team member using the same questions so that the results can be compared. Consider focusing these questions around a specific product idea so that you can find out how they might use it or how it can be designed to really help them to do something.</p>	



# WORKSHOP OUTLINE 2 OF 6 – IDEA GENERATION

## INTRODUCTION

Design Ventura workshop outlines have been created to support teachers in delivering the project to their students. They are intended to support the major milestones within the project. We use the term ‘workshop’ instead of ‘lesson’ to encourage a creative and enterprising learning environment. We encourage teachers to edit the outlines according to the time available and the learning needs of the class. Suitably broad learning objectives and student success criteria have been outlined for this purpose. Assessment opportunities have been highlighted in the right-hand column.

All activities are suitable for use with Key Stage 3 and Key Stage 4 students, with further suggestions included for more in depth learning at Key Stage 4. All content has been developed in line with national curriculum and 2017 GCSE subject content guidelines.

## WORKSHOP FOCUS:

**The focus of this session is to support students as they begin to work as a team, and in their initial responses to the design brief and the research needs of their product.**

## TIME REQUIREMENTS:

This workshop is planned for one double lesson (90-120 minutes), but can be easily adapted to suit individual needs by omitting activities.

<b>SESSION OUTLINE: Session Aims</b>	<ul style="list-style-type: none"> <li>• Support students to create initial ideas in response to the brief</li> <li>• Provide support as teams define their design criteria</li> <li>• Provide insights into professional approaches to research in design</li> <li>• Provide insights into professional methods of user-centred research</li> </ul>
<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Know how to generate initial ideas for a product</li> <li>• Understand how to develop design criteria</li> <li>• Understand how to identify research needs and carry out research related to a product idea</li> <li>• Know how to use a user centred design approach to find out the needs and want of the user</li> </ul>
<b>Student success criteria</b>	<ul style="list-style-type: none"> <li>• Teams generate a number of initial ideas and select one product idea for development</li> <li>• Teams create a set of design criteria and identify the research needs for the product</li> <li>• Teams carry out relevant research related to their product idea</li> <li>• Teams employ a user centred approach to find out the needs and wants of their target audience</li> </ul>
<b>Employability skills</b>	
<b>Design Ventura resources</b>	<p>Add links: Idea Summary Worksheet <a href="https://ventura.designmuseum.org/resources/idea-summary-worksheet/">https://ventura.designmuseum.org/resources/idea-summary-worksheet/</a></p>

	<p>Judging Criteria</p> <p><a href="https://ventura.designmuseum.org/resources/judging-criteria-2017/">https://ventura.designmuseum.org/resources/judging-criteria-2017/</a></p> <p>Use Target Audience Research Worksheet</p> <p><a href="https://ventura.designmuseum.org/resources/target-audience-research-worksheet/">https://ventura.designmuseum.org/resources/target-audience-research-worksheet/</a></p> <p>Use Evaluating Branding Worksheet</p> <p><a href="https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/">https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/</a></p>
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	<b>Assessment opportunities + curriculum links</b>
<b>1. Introduction</b>	
Introduction to the session, outlining aims of the session and expected outcomes. Students should be sitting with their teams.	

<b>2. Starter activity</b>	
<p>Kickstart the session by giving students an everyday product such as a bottle, brick, peg etc.</p> <p>Ask students to think consider one of the options below in a limited time (5 mins):</p> <ul style="list-style-type: none"> <li>• Think of as many different uses for the product as possible</li> <li>• Add one thing to improve or alter the function of the product</li> <li>• Combine two products to come up with a new product idea</li> </ul>	

<b>3. Generating initial ideas</b>	
<p>Ask students to re-visit their research on the user group they have selected. What have they found out about the user’s needs, wants and lifestyle?</p> <p>Ask students to mind map product ideas that could help the user to undertake one aspect of their life. Work as a team to select one idea and refine it; they should come up with a list of things that the product should do, be or have.</p> <p>Give students 10 minutes to sketch at least 5 different ideas for their own product.</p> <p>Each team member should present their best ideas to the team, explaining how each idea does or does not meet their team’s design specification. Encourage students to ask the presenter questions and discuss the ideas further.</p> <p>At the end of this feedback time ask students to come up with one idea that they want to develop into a product design. Remind them that it must be suitable for their user group, and that at this stage it is just an idea – the final design may look very different to this initial idea.</p>	<p>Student work Questioning</p> <p>Peer questioning and feedback</p> <p>Student work</p>

<p><b>Stuck for ideas or design fixation?</b>  <i>Try combining the best aspects of several different ideas</i></p> <p><i>Think about a specific phase of the day related to your user group – e.g. meal time, getting ready in the morning, travel, work, play</i></p> <p><i>Improve an existing product idea – think about what improve can mean; make more efficient, make work better, provide emotional value, make more sustainable or healthier</i></p> <p><i>Give students a collection of products and objects that are interesting in some way – these can be innovative, quirky, compact, expanding, durable, renewable and so on. How could aspects of these products be used in their designs?</i></p>	
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<p><b>4. Selecting the design for development</b></p>	
<p>Ask students to select one idea that has potential for development. Get them to discuss and make notes on how the idea could be evolved using different materials, manufacturing methods and refining the form and function of the product.</p> <p>Use the Idea Summary Worksheet  <a href="https://ventura.designmuseum.org/resources/idea-summary-worksheet/">https://ventura.designmuseum.org/resources/idea-summary-worksheet/</a>  to note down the key aspects of the design.</p>	<p>Teacher questioning  Peer discussion  Student work</p>

<p><b>5. Design criteria</b></p>	
<p>Ask students to review the sketches and ideas they have produced.</p> <p>What are four essential things that their design should do or have in order to fulfil its function? What other design considerations should be made? What could or should the product do, be or have in order to meet the needs of the user? This could be presented as <i>design criteria</i> or a <i>design specification</i>.</p> <p>What aspects of the designs they have generated do they wish to hold on to? Which aspects and ideas will they get rid of?</p> <p>See the Judging Criteria worksheet to compare design criteria to the competition criteria  <a href="https://ventura.designmuseum.org/resources/judging-criteria-2017/">https://ventura.designmuseum.org/resources/judging-criteria-2017/</a></p> <p>Using their design criteria or specification ask students to agree as a team which idea or aspects of ideas they will take forward into the design development stage.</p>	<p>Student work</p>

6. Identifying research needs	
<p>Give students a product from the handling collection, or ask them to refer to their previous product analysis to prompt their thinking. Using their design criteria or specification, what will they need to find out in order to develop a design that meets the user’s needs?</p> <p>Ask students to complete research to inform the design of their product. Students can continue to use the handling collection and other relevant products to focus their research. The questions below are designed to help students to consider the key aspects related to their product. Depending on the product idea additional or different aspects may need to be researched. Students could work independently or in pairs or groups to conduct relevant research related to the team’s product.</p> <p>Students could produce a summary of their findings in order to help them in the design development stage.</p> <p><b>User centred design – target audience</b></p> <p>What are the needs and wants of the user? What must the product do, be or have in order to meet their needs? What size should the parts be? How could the aesthetics (look and feel) of the product be influenced by the needs of the user? How will the user actually use the product? How might this influence the choice of materials, or the overall design of the product? What are the ergonomic considerations for the product? How will this impact on ease of use?</p> <p>Ask students to conduct interviews or use questionnaires to research the needs of the user. If the user group is ‘family’, for example, they could use a focus group approach. They could present the findings as a summary or produce a detailed user profile.</p> <p>Use Target Audience Research Worksheet  <a href="https://ventura.designmuseum.org/resources/target-audience-research-worksheet/">https://ventura.designmuseum.org/resources/target-audience-research-worksheet/</a></p>	<p>Teacher/peer questioning</p> <p>Student work</p>
<p><b>Materials</b></p> <p>What materials could be suitable or unsuitable for the product? Why? How can the product be designed to use as few materials as possible? Why is this important? Which materials would best suit the needs of the user? Why? Which materials are easy to manufacture?</p>	<p>Science links – properties of materials</p>
<p><b>Sustainability</b></p> <p>How could the product be designed with good sustainability credentials? What are the factors that influence sustainability in product design – consider materials, manufacture, use, function, repair, end of life.</p>	<p>Science links – sustainability</p>
<p><b>Branding and marketing</b></p> <p>Find a selection of products with a similar function or target audience. How have the designers used packaging and branding to appeal to this user group? What materials have been used in the packaging of the products? How sustainable is the packaging? What type faces have been used in the branding? What does the branding and packaging help to communicate about the product?</p>	

<p>Use Evaluating Branding Worksheet  <a href="https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/">https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/</a></p> <p><b>Key Stage 4:</b></p> <p>Ask students to conduct research to generate and analyse anthropometric data relevant to their product idea and user. How will this data be used to ensure ease of use?</p> <p>Ask students to analyse the responses to user interviews and questionnaires using appropriate graphs and data analysis methods.</p>	<p>Maths links – generate and analyse data using graphs</p>
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<p><b>Plenary and home learning activities:</b></p> <p>Start a sketch book to jot down ideas and sketch quick designs. Look at the products you use at home or school; how can these products help and inform your own designing? Look at the shapes, colours and materials of other products. How can these inspire your own designs?</p> <p>Give students a product or an image of a product. Ask them to design the worst possible version of it. Use the outcomes to discuss the features to avoid and things that work well.</p> <p>Give students an image of an everyday product, e.g. plastic water bottle, clothes peg, paper cup, comb. Ask them to think of at least 10 different uses for the product. Discuss ideas for refining or adapting a product design for a different or new use or function.</p> <p>Give teams two different products with the same function. Ask them to rate each product for how well it performs its function, suitability of materials, sustainability, aesthetics, suitability for user, etc. Ask them to explain the overall better product, explaining reasons for their decisions.</p> <p>Create a mood board of packaging and branding ideas for the product. Annotate the mood board to explain how materials, style, colour and typeface have been used to appeal and communicate to the target audience.</p> <p>Ask each team member to interview a user or group of users based on the questions they have planned in lesson time. How does the user think the product could help them? Do they suggest any improvements to the function? How easy will the product be for them to use? Do they provide any other insights that the designer has not yet considered?</p>	
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# WORKSHOP OUTLINE 3 OF 6 – DESIGN DEVELOPMENT

## INTRODUCTION

Design Ventura workshop outlines have been created to support teachers in delivering the project to their students. They are intended to support the major milestones within the project. We use the term ‘workshop’ instead of ‘lesson’ to encourage a creative and enterprising learning environment. We encourage teachers to edit the outlines according to the time available and the learning needs of the class. Suitably broad learning objectives and student success criteria have been outlined for this purpose. Assessment opportunities have been highlighted in the right-hand column.

All activities are suitable for use with Key Stage 3 and Key Stage 4 students, with further suggestions included for more in depth learning at Key Stage 4. All content has been developed in line with national curriculum and 2017 GCSE subject content guidelines.

## WORKSHOP FOCUS:

**The focus of this session is to support students as they refine their idea and develop their final design, through drawing, experimentation and modelling.**

## TIME REQUIREMENTS:

This workshop is planned for one double lesson (90-120 minutes), but can be easily adapted to suit individual needs by omitting activities.

## SESSION OUTLINE:

<b>Session Aims</b>	<ul style="list-style-type: none"> <li>• Provide students with a range of techniques to develop their designs</li> <li>• Provide insights into professional design development practices</li> <li>• Provide insight into design methods including user centred design and collaborative practice</li> </ul>
<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Know how to use a range of techniques to develop the design</li> <li>• Work as a team and individually to ensure the design meets the user’s needs</li> <li>• Know how to ensure that a design meets the business context</li> <li>• Know how to use research to inform design development</li> </ul>
<b>Student success criteria</b>	<ul style="list-style-type: none"> <li>• Students work collaboratively and individually to develop the design into a usable product</li> <li>• Students can explain how their research has informed their designing</li> <li>• Students can explain how the product meets the user’s needs</li> <li>• Students can explain how the product is suitable for sale in the Design Museum Shop – the business context</li> </ul>
<b>Employability Skills</b>	<p>Collaborative working Problem solving Considering real world issues</p>

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<p><b>Design Ventura resources</b></p>	<p>In the Design Studio with Pearson Lloyd  <a href="https://vimeo.com/album/2853680/video/50823631">https://vimeo.com/album/2853680/video/50823631</a>                      Idea Summary Sheet  <a href="https://ventura.designmuseum.org/resources/idea-summary-worksheet/">https://ventura.designmuseum.org/resources/idea-summary-worksheet/</a>                      Sustainability film  <a href="https://vimeo.com/170177851">https://vimeo.com/170177851</a>                      Prototyping film  <a href="https://vimeo.com/170147725">https://vimeo.com/170147725</a></p>
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	<p><b>Assessment opportunities + cross curriculum links</b></p>
<p><b>1. Inside the design studio</b></p>	
<p>Watch In the Design Studio with Pearson Lloyd  <a href="https://vimeo.com/album/2853680/video/50823631">https://vimeo.com/album/2853680/video/50823631</a>.                      Discuss with students the key stages of designing and design development.</p>	

<p><b>2. Design development</b></p>	
<p>The following activities are methods that can be used for collaborative designing. Remind students that they are all working on the same design and that it's good to share and discuss ideas! Once the overall product idea has been refined, students can work as a group, in pairs or individually on the overall design or one aspect of it.</p> <p><b>Sketch modelling</b>                      Give each team a small selection of basic materials, such as paper, masking tape and paper clips, or play dough. Students can work individually or in pairs.</p> <p>Give students 15-20 minutes to develop one sketch model of the product idea. The sketch model doesn't need to be detailed, but it should experiment with scale and form, and aspects of how the product could work.</p> <p>Ask students to discuss which aspects of the models work or do not work, giving reasons. Team should make decisions about how they will develop the final idea.</p> <p><b>4x4 designing</b>                      The purpose of this activity is to encourage students to discuss and share ideas and to help them to focus on what is essential and what is desirable for their product.</p> <p>Give each student a piece of paper and ask them to divide it into four sections. Each sketch should be given 5 minutes.</p> <p>Each team member begins by quickly sketching their idea for the product in box 1, annotating their idea so that it is self-explanatory. Rotate the sketches around the group, with each</p>	<p>Student work                      Teacher/student questioning</p>

<p>team member given 5 minutes to sketch a development in the next box, adding something or taking something away to refine the idea. Each development should be annotated, and specifically relating to the original design or the previous team member's development of it.</p> <p>Once each sketch has been round all team members, ask students to review their original design to see what has been added or removed.</p> <p><b>Selecting the final design</b> Ask each team to discuss which ideas work and which do not in order to come up with their final design. They can compare their drawings and sketches to explore different perspectives, scales and interpretations of the idea.</p> <p><b>Pass/Fail or Idea Scoring</b> – students can quickly assess designs or aspects of their ideas against the design criteria to assess their success or suitability for the user.</p> <p>At this stage each team should have a final idea that they plan to refine into a 3D prototype. Ask teams to remind themselves of their design criteria – does their final idea meet these criteria? Does the design solve a problem for their target audience? Can it be sustainable, or does it encourage sustainability? Is it possible to manufacture the product within budget? Is it suitable to be sold in the Design Museum Shop?</p> <p>Students could use the Idea Summary Sheet <a href="https://ventura.designmuseum.org/resources/idea-summary-worksheet/">https://ventura.designmuseum.org/resources/idea-summary-worksheet/</a> to focus their thinking.</p>	
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<p><b>3. Sustainability</b></p>	
<p>Watch the sustainability film on the Design Ventura website <a href="https://vimeo.com/170177851">https://vimeo.com/170177851</a></p> <p>Ask teams to consider what they could change about their design to improve its sustainability credentials. They could consider some of the following factors:</p> <ul style="list-style-type: none"> <li>• Materials</li> <li>• The product's life cycle</li> <li>• Manufacturing</li> <li>• Packaging</li> <li>• Transportation</li> </ul> <p><b>Key stage 4 extension activity</b> Complete a detailed life cycle analysis of the product, taking into consideration the ethical, social and ecological footprint of the product. Students should consider these factors in relation to both the materials and components of the product and also the function of the product.</p>	<p>Science links – sustainability</p>

<b>4. 3D prototyping</b>	
<p>Watch the Prototyping film on the Design Ventura Website – <a href="https://vimeo.com/170147725">https://vimeo.com/170147725</a></p> <p>Ask students to discuss when, how and why designers test and model their ideas. Provide students with a range of suitable materials, tools and manufacturing methods.</p> <p>Ask teams to refer to their research to inform their selection of suitable materials and manufacturing methods for the prototype.</p> <p>Ask teams to develop their drawings and sketch models into a 3D prototype. The prototype should be a working model that is produced to scale, and should be able to be used and tested.</p>	
<p><b>Key stage 4 extension activity</b> Create a flow chart or work schedule to show the planning involved in making the prototype. Systems planning could record improvements and modifications made during the process, and could demonstrate appropriate mathematical calculations and methods involved in product manufacturing.</p> <p>Ask students to produce detailed parts drawings to plan a final prototype. They could calculate dimensions, surface areas, and show tolerances, for example. They could also demonstrate how waste can be minimised.</p>	<p>Maths links – using maths to calculate areas/dimensions/measurements</p>

<b>5. User centred design - generating user feedback</b>	
<p>Once a prototype has been produced teams can go back to their user group and generate some feedback on the design. They could use the following methods:</p> <p><b>Focus group</b> Gather a small group of people who fit the user group and ask them to assess the product through discussion. Students could prepare a small number of questions beforehand to stimulate the discussion. Students should record any feedback.</p> <p><b>Role play</b> Students could put themselves into the situation of the user and discuss how they would use the product or any improvements that could be made from the point of view of that person.</p> <p><b>Interviews</b> Students could interview one or more people who fit the user profile to gather feedback on their design. They should record and comments and suggestions that are made for improvements to the product.</p> <p>Ask teams to record the feedback that was provided, and to consider what improvements could be made to the design of the</p>	

<p>product.</p> <p>The Design Ventura brief asks students to consider how their final design could be improved and refined further, so it is important to encourage students to continue to evaluate their designing, even if they think they have a final design that they are happy with.</p>	
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<p><b>6. Suitability for the business context</b></p> <p>Ask students to remind themselves of the business context for their product. Does their prototype suit the look and feel of the Design Museum shop? Are there any improvements and modifications that could be made to make the design more suitable for this context?</p> <p>See Design Museum Shop Information <a href="https://ventura.designmuseum.org/resources/design-museum-shop-information/">https://ventura.designmuseum.org/resources/design-museum-shop-information/</a> for more information about the business context.</p>	
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<p><b>Plenary and home learning activities:</b></p> <p>Ask students to model the idea in several different materials sizes and shapes to work out which one works best.</p> <p>Interrogate the design against the idea summary sheet [<a href="https://ventura.designmuseum.org/resources/idea-summary-worksheet/">https://ventura.designmuseum.org/resources/idea-summary-worksheet/</a>] and identify aspects that could be improved.</p> <p>Discuss the ideas with a range of people who fit the target audience. What do they think works well? What do they think could be improved?</p>	
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# WORKSHOP OUTLINE 4 OF 6 – ENTERPRISE AND BRANDING

## INTRODUCTION

Design Ventura workshop outlines have been created to support teachers in delivering the project to their students. They are intended to support the major milestones within the project. We use the term ‘workshop’ instead of ‘lesson’ to encourage a creative and enterprising learning environment. We encourage teachers to edit the outlines according to the time available and the learning needs of the class. Suitably broad learning objectives and student success criteria have been outlined for this purpose. Assessment opportunities have been highlighted in the right-hand column.

All activities are suitable for use with Key Stage 3 and Key Stage 4 students, with further suggestions included for more in depth learning at Key Stage 4. All content has been developed in line with national curriculum and 2017 GCSE subject content guidelines.

## WORKSHOP FOCUS:

**The focus of this session is to provide students with support as they consider the enterprise and costing aspects of their product.**

## TIME REQUIREMENTS:

This workshop is planned for one double lesson (90-120 minutes), but can be easily adapted to suit individual needs by omitting activities.

## SESSION OUTLINE:

Session Aims	<ul style="list-style-type: none"> <li>• Provide insights into professional approaches to product branding and marketing</li> <li>• Develop students’ understanding of the business context for Design Ventura</li> <li>• Develop students’ understanding of costing and budgeting issues in product design</li> </ul>
Learning Objectives	<ul style="list-style-type: none"> <li>• Understand how branding is used to market products to a target audience</li> <li>• Understand how design is influenced by the business context for a product</li> <li>• Understand how costing and budgeting is related to product planning</li> <li>• Know how to develop business and marketing plans</li> </ul>
Student success criteria	<ul style="list-style-type: none"> <li>• Students develop branding and marketing ideas for the product</li> <li>• Teams produce business and marketing plans for the product</li> <li>• Teams produce costing and budget plans for the product</li> </ul>
Employability skills	
Design Ventura resources	<p>Budget Sheet Template  <a href="https://ventura.designmuseum.org/resources/budget-sheet-template/">https://ventura.designmuseum.org/resources/budget-sheet-template/</a>            Evaluation Branding worksheet  <a href="https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/">https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/</a>            Glossary of Enterprise terms  <a href="https://ventura.designmuseum.org/resources/glossary-enterprise-terms/">https://ventura.designmuseum.org/resources/glossary-enterprise-terms/</a></p>



	Assessment opportunities + curriculum links
<p><b>1. Introduction...</b></p> <p>Show students the Design Museum Shop film again – <a href="https://vimeo.com/226438544">https://vimeo.com/226438544</a></p> <p>Ask them to note down what they think the most important elements of the product design, manufacture and marketing are in relation to the business context.</p>	Teacher questioning
<p><b>2. Progress update</b></p> <p>Students should work in teams to complete a SWOT analysis of their idea as developed so far (Strengths, Weaknesses, Opportunities and Threats). The aim of this exercise is to recap on progress made so far and to bring a business perspective to ideas. SWOT analyses are often used in business to quickly assess situations.</p> <p>Each team should assess their idea by identifying the Strengths, Weaknesses, Opportunities and Threats in relation to the idea they have developed in response to the brief.</p> <p>One person from each team should be nominated to share the analysis with the rest of the group.</p> <p>Using this analysis, ask teams to identify considerations of the product from the business perspective. What are the business aspects of their design that should be developed?</p>	Teacher/student questioning Peer feedback
<p><b>3. Business focus</b></p> <p>Give teams products from the Handling Collection or ask them to look at products for sale in the Design Museum Shop. Ask students to evaluate one product in relation to:</p> <ul style="list-style-type: none"> <li>• The USP (unique selling point)</li> <li>• The target audience</li> <li>• The price</li> </ul> <p>Ask each team to present the product to the wider group with a one minute 'elevator pitch' which explains the product in relation to the three points above. The aim of this exercise is to get students to consider how products are marketed and how to convey the strengths of their idea.</p>	Peer feedback
<p><b>4. Costing and budget</b></p> <p>Give each team one product from the Handling Collection or a similar low cost product. Ask teams to mind map all the aspects of the design and manufacture of the product that have an impact on cost and profitability.</p> <p>They should consider:</p> <ul style="list-style-type: none"> <li>• materials</li> <li>• packaging</li> </ul>	Maths links – calculations...

continued overleaf...

<ul style="list-style-type: none"> <li>• manufacturing</li> <li>• labour</li> <li>• overheads – for example rent, utility bills, insurance</li> <li>• marketing</li> </ul> <p><b>Calculating manufacturing and production costs:</b> Teams should calculate all the costs related to the manufacture and marketing of their product. Remind students that the manufacturing costs should be no more than £5 per product, and that the retail price should be £10. The winning product will be manufactured as a batch of around 250 with an overall budget of £2000. Teams should:</p> <ul style="list-style-type: none"> <li>• Calculate quantities and costs of each material or component used</li> <li>• Calculate quantities and costs of materials for packaging</li> <li>• Research the costs of manufacturing methods such as die cutting and printing</li> <li>• Research the labour costs involved in the manufacture (these can be local or national average costs)</li> <li>• Calculate how many items can be manufactured within budget</li> <li>• Calculate the expected profit from the sale of this quantity of products</li> </ul> <p>Students can use the Budget Sheet Template to present their findings <a href="https://ventura.designmuseum.org/resources/budget-sheet-template/">https://ventura.designmuseum.org/resources/budget-sheet-template/</a></p> <p><b>Key stage 4:</b> Ask students to evaluate the suitability of their design for one-off production, mass production, batch production, just-in-time manufacture. They should summarise advantages and disadvantages for each method, giving reasons.</p> <p>Ask students to research stock forms and standard components that could be used in the manufacture of their product. How could this impact on the manufacturing costs and profitability of their design? How could manufacturing methods impact on the suitability of stock forms and standard components for their product?</p> <p>Ask students to consider the ethical, social and moral implications of manufacture and production costs. What are the implications of outsourcing manufacture to different countries, or using only local labour, for example?</p>	
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<b>5. Marketing focus</b>	
<p>Ask students to assess the same product in terms of its packaging and branding, using the Evaluation Branding Sheet <a href="https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/">https://ventura.designmuseum.org/resources/evaluating-branding-worksheet/</a></p> <p>Using this research, ask students to plan a marketing campaign for their own idea, thinking about ways they could reach their target audience. They should consider:</p>	<p>Teacher/peer questioning</p> <p>Student work</p>

<ul style="list-style-type: none"> <li>• how branding can be used to make their product appealing in the Design Museum Shop</li> <li>• how marketing methods (for example using digital resources) could be used to reach a wider audience</li> </ul> <p>Encourage students to think outside the box and be innovative, while minimising the cost of marketing. They could consider how humour and quirky ideas can be used to appeal to the target audience. Marketing strategies could include:</p> <ul style="list-style-type: none"> <li>• email newsletters</li> <li>• posters and billboards</li> <li>• give-aways and samples</li> <li>• print and media advertising</li> <li>• sales deals</li> <li>• viral internet campaigns, considering how such campaigns generate interest</li> <li>• use of bloggers to review products</li> </ul> <p>Each team should select one marketing approach and produce a quick mock-up of it. They could produce a poster or storyboard to explain the idea. The following information should be included:</p> <ul style="list-style-type: none"> <li>• the name of the product and some information about its function</li> <li>• the USP</li> <li>• use of font/typeface and colour to appeal to the target audience</li> <li>• the price of the product</li> <li>• where the product can be bought</li> </ul> <p><b>Key stage 4:</b></p> <p>Ask students to consider how trends and fashion influence the development and style of products. How do products influence trends and fashion? How do technology push and market pull influence product development?</p>	
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<p><b>Plenary and home learning activities:</b></p> <p>Ask students to conduct market research to assess how much their target audience would be willing to spend on their product. Students could find out the views of the target audience on 'value', 'mid-range' or 'high end' products. Does this information support the costing of their product?</p> <p>Ask students to create a costing analysis of three similar products – value, mid-range and high end. How do they think the retail cost of each product is arrived at (e.g. materials, manufacture, marketing, retail)? How does the target market influence the retail price of the products? What are the advantages and disadvantages of each approach?</p> <p>Ask students to evaluate the marketing strategy of a product that they have bought. How was the product marketed? How was it designed to appeal to the target audience? What are the factors that influenced their decision to buy the product?</p>	
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# WORKSHOP OUTLINE 5 OF 6 – COMMUNICATING YOUR DESIGN

## INTRODUCTION

Design Ventura workshop outlines have been created to support teachers in delivering the project to their students. They are intended to support the major milestones within the project. We use the term 'workshop' instead of 'lesson' to encourage a creative and enterprising learning environment. We encourage teachers to edit the outlines according to the time available and the learning needs of the class. Suitably broad learning objectives and student success criteria have been outlined for this purpose. Assessment opportunities have been highlighted in the right-hand column.

All activities are suitable for use with Key Stage 3 and Key Stage 4 students, with further suggestions included for more in depth learning at Key Stage 4. All content has been developed in line with national curriculum and 2017 GCSE subject content guidelines.

## WORKSHOP FOCUS:

**The focus of this session is to provide students with support as they begin to communicate their developed designs and to complete the product prototype.**

## TIME REQUIREMENTS:

This workshop is planned for one double lesson (90-120 minutes), but can be easily adapted to suit individual needs by omitting activities.

## SESSION OUTLINE:

<b>Session Aims</b>	<ul style="list-style-type: none"> <li>• Provide students with a range of techniques to communicate their designs and design thinking</li> <li>• Provide insights into the professional presentation of design</li> <li>• Support the development of students' presentation and pitching skills</li> </ul>
<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Know how to evaluate designing and feedback to generate final product designs</li> <li>• Know how to use a number of methods and techniques to communicate the final design</li> <li>• Know how to plan and deliver a professional pitch</li> </ul>
<b>Student success criteria</b>	<ul style="list-style-type: none"> <li>• Teams agree on the final designs for their product</li> <li>• Students work collaboratively to create a series of presentation drawings to explain their design and how it meets the needs of the user</li> <li>• Students work collaboratively to create a high quality pitch</li> </ul>
<b>Employability Skills</b>	Communication Collaborative working Problem solving Planning and organising Self-management
<b>Design Ventura resources</b>	Design Ventura Top Tips for Pitching – Chris Ruse, Deutsche Bank <a href="https://vimeo.com/album/2853680/video/54609271">https://vimeo.com/album/2853680/video/54609271</a> Design Ventura pitch template <a href="https://ventura.designmuseum.org/resources/design-ventura-pitch-template/">https://ventura.designmuseum.org/resources/design-ventura-pitch-template/</a> 3 Minute Pitch Planner

	<a href="https://ventura.designmuseum.org/resources/3-minute-pitch-planner/">https://ventura.designmuseum.org/resources/3-minute-pitch-planner/</a> Class pitch guidelines <a href="https://ventura.designmuseum.org/resources/class-pitch-guidelines/">https://ventura.designmuseum.org/resources/class-pitch-guidelines/</a>
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	<b>Assessment opportunities + curriculum links</b>
<b>1. Introduction</b>	
Introduction to the session, outlining aims of the session and expected outcomes. Students should be sitting with their teams.	

<b>2. Final design decisions</b>	
Using their own evaluation of the prototype and the feedback generated from user testing, teams should agree on improvements and modifications and arrive at the final product idea.  If necessary, another prototype could be manufactured to take account of any modifications to the design.  <b>Key stage 4:</b> Ask students to produce a technical specification for the product.	

<b>3. Communicating designs</b>	
Explain and give examples of professional presentation of design ideas. What methods do designers use to present product designs to clients? What are the advantages of each method? Why is more than one method often used?  Ask students to note down the essential information that they will need to convey in their presentation of their ideas.  Remind students that they are taking part in a competition and that the use of visual communication is an important tool in explaining and describing their design.  <b>Communicating product information</b> Give each team a product from the Handling Collection. If they were presenting this product to a client, what would they need to explain about it?  Ask teams to identify the key information about their product that should be explained to the client – the Design Museum Shop. Ask teams to mind map the methods they could use to communicate this information in their presentation sheets.  <b>Design Ventura presentation requirements</b> The Ventura competition requires teams to produce three A3 visualisation sheets to present the design process. Included in the presentation should be:	Student work

<ul style="list-style-type: none"> <li>• A bit about the team</li> <li>• Research findings</li> <li>• Idea generation – initial ideas and how the design was developed</li> <li>• The final design – prototype and product description</li> <li>• Manufacturing processes</li> <li>• The sustainability credentials of the product</li> <li>• Business plan – costings and target audience</li> <li>• Marketing campaign</li> </ul> <p>Students should work on the presentation pages, with each team member taking responsibility for part of the presentation. The presentation should tell the story of the team’s design process.</p> <p><b>Research findings</b> Students should summarise the key points from their research, including information that is relevant to how their product was developed. This page could include information about the materials selection, how the product meets the needs of the user, how the product would be manufactured and the sustainability credentials of the product.</p> <p><b>Idea generation</b> This section should show how the product was developed from an initial idea into a marketable product. This page should include images and a description of the final product.</p> <p><b>Business plan and marketing</b> This section should show the costings of the product, explaining how it can be manufactured within budget and how it is able to make a profit. The marketing and branding plan should be explained, with information about how the product can be marketed to the target audience.</p> <p>Students could use a number of techniques to present their designs. These could include hand drawn sketches and isometric drawings, CAD drawings, detailed drawings of any complex parts of the product or exploded drawings.</p> <p>Images of the product prototype should be used, with annotation to explain aspects of the design in more detail or feedback gathered from user testing.</p> <p>Presentation sheets can be either hand drawn and scanned or created digitally.</p>	
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<p><b>4. Preparing the pitch</b></p> <p>Remind the group that the Ventura competition requires teams to pitch their ideas to a panel of judges. Show students the Top Tips for Pitching film on the Design Ventura website <a href="https://vimeo.com/album/2853680/video/54609271">https://vimeo.com/album/2853680/video/54609271</a>. You could also show them a clip of a Dragon’s Den style pitch. As them to make their own list of top tips about pitching.</p> <p>Students should develop a short pitch for their product. They</p>	
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<p>could follow this template:</p> <ul style="list-style-type: none"> <li>• We are... (introduce yourselves)</li> <li>• Our product is...(give your product a name and explain what it is)</li> <li>• Our target audience is...</li> <li>• We think they'll like our product because...</li> <li>• We plan to manufacture our product by ...</li> <li>• We can reach our target audience through the following marketing...</li> <li>• Our product will minimise harm to the planet and encourages sustainability because...</li> <li>• We think we can make a profit because...</li> <li>• We think the judges should choose us because...</li> </ul> <p>Students should practice their pitch as a team. It is important to allocate a section of the pitch to every team member so that everyone is involved.</p>	
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<b>5. Practice pitching session</b>	
<p>Each team should present their response to the Ventura brief in a short pitch (3 mins or less). Students should then be encouraged to ask constructive questions or make suggestions about ways that the ideas can be developed before the final competition.</p>	<p>Teacher/peer questioning and feedback</p>

<b>6. Next steps</b>	
<p>Teams should now be reminded about any final work to complete (e.g. competition entry form and visualisation sheets) as well as the process that will be used to select one team to represent the school in Design Ventura competition.</p> <p>Only one team per school can enter the final competition so we recommend that each school runs its own pitching event with judges who can use our criteria to select a team.</p> <p>The Class Pitch Guidelines <a href="https://ventura.designmuseum.org/resources/class-pitch-guidelines/">https://ventura.designmuseum.org/resources/class-pitch-guidelines/</a> provides further information about running the pitching event.</p>	

<b>7. Competition entry for the winning team</b>	
<p>The winning team in your school should be supported to complete the entry form.</p>	