# Stage 5 Design and technology – virtual lessons – design and preferred futures

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| Guiding question |  |
| What are your students going to learn? (Objectives) | **DT5-4** analyses the work and responsibilities of designers and the factors affecting their work**DT5-5** evaluates designed solutions that consider preferred futures, the principles of appropriate technology, and ethical and responsible design* apply a holistic approach by considering the factors affecting design and production in a design project
* explore the work of past and current designers in commercial, historical and industrial settings from different focus areas of design (ACTDEK040, ACTDEK041)
* investigate career opportunities and pathways in design manufacture
* understand ethical responsibilities surrounding intellectual property, trademarks and copyright
* explore the possibilities for preferred futures given the constraints of our current thinking, available technologies and resources (ACTDEK040, ACTDEK041)
* identify visions and specific examples of preferred futures (ACTDEK040)
* identify what changes would need to occur to achieve preferred futures (ACTDEK040)
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| How are they going to learn it? (Resources and Strategies) | Students complete worksheets (attached). These can be delivered electronically (email or through an online learning platform) or printed and given to students. |
| Target date for completion | 2 weeks |
| How are you going to know that they learned it? (Success criteria) | Lesson outlines1. **Successful design**

Successful design – student identify factors that contribute to the commercial success of a designFactors affecting design – students are to define the factors that affect design, including function, form, aesthetics, end-user applications, quality, trends and historical, contemporary and future considerations. Students are then to outline how each of these factors affect their design focus area.1. **Communicating with clients**

Communicating with clients – communication between designer, client, manufacturer and customer is core to the success of any design. Students are to:* Identify communication techniques that could be used.
* Outline why it is best practice for designers to use more images than text when communicating with clients.
* List possible communication techniques.
* Explain the importance of written, oral and digital communication for designers.

Target audience - Before any communication technique is selected, designers need to be aware of their target audience. Students:* define target audience
* outline how a designer can determine the best way to communicate with their target audience
1. **Design based careers**

Design based careers – teacher can allocate specific focus area for students to research possible careers.Student’s research a profession related to the TAS area they are studying. Students are to create a report with the following information:* Job title
* Training required
* Personal requirements
* Outline of duties
* Average income
* Profile of a designer

Profile of a designer – teacher can allocate specific field or specific designer for students to research.Student’s research a designer. Students are to create a report with the following information:* Name
* Occupation
* Biography
* Inspiration
* Materials used
* Tools and equipment used
* Their design process
1. **Intellectual Property and trademarks**

Students are to outline:* patents
* copyright
* trademarks

Using the information available on the Australian Government Business website students are to answer the following questions:* What is a trademark?
* How does a trademark differ from copyright?
* How long does a trademark last?
1. **Preferred futures**

Students:* Outline What their focus area will look like in 20 years.
* Research and identify trends within their focus area from the past and the present and note at least 4 trends.
* Outline major events that might happen that would influence their focus area in 20 years. Consider developments/changes in society, technology, the environment, the economy and in politics.
* Outline what would need to change and what would need to be invented for their preferred future to occur.
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| Collecting evidence of student learning (Verification) | Students complete worksheets (attached). These can be submitted to the teacher by the due date electronically (email or through an online learning platform) or printed and handed in. |
| Feedback (Evaluation) | Format to be communicated clearly by teacher, whether it is by emailing comments or annotations on documents, upload of media/audio via online platforms or a blended approach. |
| Communication | Teachers are able to gauge the progress of the tasks via the schools online platform. Submission dates for each task may be useful as opposed to one final due date. Students can pose questions/clarifications directly to teacher via email or online platform Scaffolds for each task may be posted by the teacher to help clarify specific requirements for each activity. |

## What makes a design idea or product commercially successful?

Brainstorm factors that contribute to the commercial success of a design below:

## Factors affecting design

When designing, there is a range of factors that can affect the success of the final design. These factors include:

* function
* form
* aesthetics
* end-user applications
* quality
* trends
* historical, contemporary and future considerations

For each of the factors affecting design, write a short explanation in the spaces below.

|  |  |
| --- | --- |
| Factor | Explanation |
| Function |  |
| Form |  |
| Aesthetics |  |
| End-user applications |  |
| Quality |  |
| Trends |  |
| Historical, contemporary and future considerations |  |

### Factors affecting design activity

Describe how the factors affecting design effect design within your focus area.

|  |  |
| --- | --- |
| Factor affecting design | How it affects design |
| Function |  |
| Form |  |
| Aesthetics |  |
| End-user applications |  |
| Quality |  |
| Trends |  |
| Historical, contemporary and future considerations |  |

## Communicating with clients

Communication between designer, client, manufacturer and customer is core to the success of any design. Good communication is just as important as good design.

Designers should utilise a range communication and presentation techniques.

In the space below, brainstorm ways in which designers can present information to clients/customers:

#### Communicating with clients

It is important for designers to documents all stages of work that they complete. This usually takes place in a design portfolio. However, designers must use communication methods that the client will understand.

When communicating with a client, designers usually use presentations with more illustrations than text to ensure understanding.

Why is it best practice for designers to use more images than text when communicating with clients? Write your answer in the space below.

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| --- |

#### Visual communication techniques

Presenting information through lots of text can be off-putting for many people. The ability to explain ideas through visual and graphical communication techniques is exceedingly valuable for designers as they can quickly and easily present their designs to a range of audiences.

List some visual and graphical communication techniques below:

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| --- |

### Other communication techniques

In the spaces below, explain the importance of written, oral and digital communication for designers.

Written

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| --- |

Oral

|  |
| --- |

Digital

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| --- |

## Target audience

Before any communication technique is selected, designers need to be aware of their target audience.

What is a target audience? Write your answer in the space below.

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| --- |

Discuss in the space provided: How could a designer determine the best way to communicate with their target audience?

|  |
| --- |

## Design based careers

Research how you can become a designer within your focus area (use [the good universities guide](https://www.gooduniversitiesguide.com.au/careers-guide/browse/theatrical-costume-maker-and-designer) as a starting point).

|  |  |
| --- | --- |
|  | Response |
| Job title |  |
| Training required |  |
| Personal requirements |  |
| Outline of duties |  |
| Average income |  |

## Profile of a designer

Choose a designer in a related field, conduct research on them and complete the table below

|  |  |
| --- | --- |
|  | Research  |
| Name |  |
| Occupation |  |
| Biography |  |
| Inspiration |  |
| Materials used |  |
| Tools and equipment used |  |
| Their design process |  |
| Pictures of some of their designs |  |

## Intellectual Property – what is it?

Various types of intellectual property (IP) exist to protect ownership of an idea or product.

The main protection of IP are:

* patents
* copyright
* trademarks

Give a brief outline of each in the space below.

Patents

|  |
| --- |

Copyright

|  |
| --- |

Trademarks

|  |
| --- |

### Trademarks

Using the information available on the Australian Government Business website answer the following questions in the spaces provided.

What is a trademark?

|  |
| --- |

How does a trademark differ from copyright?

|  |
| --- |

How long does a trademark last?

|  |
| --- |

## The future of [Focus Area]

What will your focus area look like in 20 years? Brainstorm ideas in the diagram below.

Write a brief overview of what you think your focus area will look like and what it will entail in 20 years.

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### Researching the past to look to the future

Research and identify trends within your focus area from the past and the present. Write at least 4 trends in the space below.

### Preferred Futures – What if?

Part of the challenge of thinking about the future is that even though we can recognise trends from the pas to the present, these are not guarantees of the future. Asking ‘what if?’ helps us to imagine incalculable possibilities, as well as identify other focus areas that could be developed to assist in achieving a particular preferred future.

Think of major events that might happen that would influence your focus area in 20 years. It may be helpful to use the acronym STEEP – consider developments/changes in society, technology, the environment, the economy and in politics.

Complete the table below.

|  |  |
| --- | --- |
| Area to consider | Changes that might occur in the future that would influence your focus area |
| Society |  |
| Technology |  |
| Environment |  |
| Economy |  |
| politics |  |

Write at least four ‘what if?’ questions about your vision of your focus area in the future.

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### Preferred futures with your focus area

Outline your view on the future of the focus area in the space below.

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Use the chart below to expand on the points from your previous brainstorm. Think about what would need to change and what would need to be invented for your vision of your focus area in the future to occur.

