

Design and Technologies - Task Year 6

Operation Playground



Name:

Due Date:

Purpose: For Students to use design thinking and technologies to generate and produce designed solutions for authentic needs and opportunities.

Context: Students have been investigating how people in design and technologies occupations address competing considerations, including sustainability in the design and construction of playgrounds suitable for a school. The schools current playground is showing signs of wear and has been deemed unsafe for use. The school has begun the process for the installation of a new playground and would like to provide opportunities for student input into this process.

Task: You need to produce a proposal and design for a new school playground. You will need to explore playground design and occupations. You need to identify the products and materials used in playground construction and explore the sustainability of these products. You need to consider who will use the playground and identify the necessary safety features.

Your proposal should include:

- images of suitable playgrounds
- the safety features of the playground
- Sustainable materials
- A plan for the process of constructing the playground
- A drawn and labelled playground design identifying relevant features including safety features and the sustainable materials used.

NOTE: You can produce your design using the *computer* **OR** *drawing by hand*.

Investigate



Thinking about the task, what is the *problem* you need to create a solution for?

What are the *occupations* involved in playground design?

Define in your own words *Sustainability*?

How can *sustainability* be included in the playground design and construction?

Audience - Who will use the playground and how does this affect the design of the playground?

What are the *safety considerations* in designing and constructing a school playground?

Explore



Using the class ipads or computers find images of suitable playgrounds designs that meet the needs you have investigated above. Print and glue the images below.

Label the images identifying the sustainable materials and safety features needed for the purpose of a school playground.

Plan



Think - What needs to happen for the playground to be finished and enjoyed by the students of the school?

Create a plan of the steps involved in designing and constructing a new playground.

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Design



Draw and label your playground below.

Remember to identify key features, safety features and the sustainable materials used in your design.

Reflect



Describe how sustainability affects the design and construction of the school playground for current and future use.

Explain how the audience, safety and sustainability have influenced your design choices.

Reflect on the KWHL chart we completed in class; what new information did you learn? *Think* about occupations in playground design and construction, sustainability and safety features of school playgrounds.

Are there some other considerations in designing and constructing a playground that have not been included?

Are there any changes or additions you would make to your chosen playground design?

Year 6 Operation Playground -Assessment Criteria

Criteria	A	B	C	D	E
Knowledge and Understanding Students investigate and describe how people in design and technologies occupations address competing considerations, including sustainability in the design a school playground for current and future use	Comprehensive and detailed investigation, description and explanation of how people in design and technologies occupations address safety, audience and sustainability in the design a school playground for current and future use	Comprehensive investigation, description and explanation of how people in design and technologies occupations address safety, audience and sustainability in the design a school playground for current and future use	Accurate investigation and description of how people in design and technologies occupations address safety, audience and sustainability in the design a school playground for current and future use	limited investigation and description of how people in design and technologies occupations address safety, audience and sustainability in the design a school playground for current and future use	No investigation and description of how people in design and technologies occupations address safety, audience and sustainability in the design a school playground for current and future use
Processes and Production skills Students explore the steps involved in the process to satisfy the playground design brief, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions of a school playground	Comprehensive and detailed exploration and investigation of the steps involved in producing the playground design brief including materials, components, tools, equipment and processes to achieve intended designed solutions of a school playground for a specific audience and purpose	Comprehensive exploration and investigation of the steps involved in producing the playground design brief including materials, components, tools, equipment and processes to achieve intended designed solutions of a school playground for a specific audience and purpose	Accurate exploration and investigation of the steps involved in producing the playground design brief including materials, components, tools, equipment and processes to achieve intended designed solutions of a school playground for a specific audience and purpose	Limited exploration and investigation of the steps involved in producing the playground design brief including materials, components, tools, equipment and processes to achieve intended designed solutions of a school playground for a specific audience and purpose	No exploration and investigation of the steps involved in producing the playground design brief including materials, components, tools, equipment and processes to achieve intended designed solutions of a school playground for a specific audience and purpose