

Project Name:

School:

**Integrated STEM Project: Planning Template**

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| Teachers: | Position: |
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Technology: Identify and outline the technologies students will use to ‘create’ in your project. E.g. 3D Printer, Timber, Plastics, Food, Textiles, Robotics, Video.

Justify your choice of project suitable for a STEM project.

Project Outline: Brainstem your ideas with your colleagues. Describe the project in detail. Include a description of how each learning area will contribute to the project.

Main Contact/Coordinator:

Future Planning:

**Design Brief Assessment:**

Begin with a **Design Situation** which:

* is based on an authentic context that is relevant to the group
* sets the context for project-based learning
* promotes initial discussion, stimulates questions
* encourages sharing of personal experiences
* allows students to connect to the task

Promotes discussion, sharing of stories and experiences

Initial discussion and research

Statement of fact

Lifestyle related diseases are on the increase in Australia. **Obesity is of particular concern amongst children and teenagers**. Regular exercise and a balanced diet that is low in sugar, fat and salt need to be promoted to all Australians to ensure the health of the community and reduce the burden on public health systems.

Authentic context, meaningful to students

Promotes discussion

Stimulates questions

Develop a **Design Brief:**

* must be an open ended statement that allows students to create different solutions to an identified need or opportunity
* may be presented as a problem that requires a solution
* should provide sufficient detail and information to allow the student to know what they must do
* should provide guidance and be a point of evaluation that is referenced throughout the design process

What students need to do is clearly outlined

What students need to produce allows for different solutions

Constraints identified

**Example**:

**Design, produce and evaluate a snack food** which is low in fat, salt, and sugar and high in fibre and suitable for sale at the school canteen.

Target market identified but open – gender, age, special dietary requirement s

Constraints identified

**Unit of Learning Title**

**Design Specialisation**

**Unit of Learning Title**

**Design Specialisation**

**STEM it up!**

**WHAT?**

**HOW?**

**WHY?**

**WHO?**

**WHO** are my students?

**WHY** do students need to learn this?

**HOW** will students acquire the required skills, knowledge and understanding?

**WHAT** will students do/produce to demonstrate their learning?

**Now STEM it up!**

* Use the following table to see where STEM is incorporated and identify areas for improvement.
* What do students need to find out about?
* How will they do that?
* Have they identified a real-world context?
* How will they apply what they learn to their design project?
* What technologies may they use?
* Are they using correct scientific method?
* How will they record and communicate their findings?
* What skills will they need?
* What materials will be explored?
* How will they measure their success?

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| **Research, testing and Experimentation** | Science | Technology | Engineering | Mathematics |
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Explore design ideas to meet the need identified in the design brief.

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