

Project Management and Water Efficiency

Students research facts about water and water usage in different times and places, and consider the effects on their school of a chronic water shortage in their community. They complete an initial water audit (in terms of practice and consumption) in their school. Using both their research and the findings of their initial water audit, they devise and implement:

- an awareness campaign using stalls in their school community
- a pilot project aimed at saving water through implementation of non-financial remedies, leading to a second water audit.

Using the findings of their pilot project, they make a presentation to an authoritative group associated with the school to justify an extension of the project, possibly involving finances. They create a Code of Practice for the school community to adopt as part of sustainable water practice in the future.

Students acquire a detailed knowledge of

- the water cycle and factors affecting it e.g. global warming
- how water has been captured, stored and used in Australia paying attention to domestic, agricultural and industrial uses and instances of drought
- how water is retrieved, stored, allocated and used in their local community
- reasons for and repercussions of the potential/actual current water shortages, locally, nationally and perhaps globally
- human activity and water usage through studying informative cases and accounts of communities that have experienced water depletion in terms of their circumstances, issues and responses e.g. damming, recycling, sustainable water usage, conserving, public/private practice
- the school's water consumption and usage patterns and a comparison with other schools etc.

DEMONSTRATION K: Knowledge

Individually in class

- write a scientific account of how water is cycled within ecosystems
- using a map, indicate the prevailing geographic and climatic conditions that influence rainfall, locally, nationally and perhaps globally.

Research, develop and declare a set of principles that will guide the decision-making and associated justifications in your demonstrations for the three phases below (Awareness, Contingency, Recovery) e.g. "The preservation of health is more important than aesthetic considerations."

You could draft some principles and progressively refine them as you work through the task.

AWARENESS PHASE

What it might mean if water shortages occurred in your school

Demonstration A (awareness)

Create a series of lunchtime stalls to raise awareness about the fact that water is a scarce and precious resource that needs to be used carefully. Prepare promotional materials for your stall that provoke discussion in the school community about water use.

Such stalls should deal with a variety of information about water and could include any of the following:

- statistics about your own school's usage compared with other schools/countries/regions etc.
- the water cycle
- water use over time
- water uses in other countries
- methods of conservation.

Each stall should be the responsibility of one small group. All groups to work together to stage a coherent overall presentation.

CONTINGENCY PHASE

Things to do in your school in the event of water shortages

Conduct an initial audit of water use in your school.

Demonstration C (contingency): 1

Use your findings and your research to create a pamphlet/poster (small group work) that details 10 things the school community can do to save water in your school that do not require special funding. Ensure that the whole school is aware of your pamphlet/poster, so that they can practise the recommended behaviours.

Before the next activity, and after your recommendations have had time to be acted upon, conduct a second audit.

Demonstration C (contingency): 2

As a class, prepare a multimedia presentation for your school council/P&C/ administration requesting funding for water saving devices in your school. Your presentation should include the following details:

- comparative data from school water audit re consumption and usage patterns, in the first and second audits
- targets for sustainable water use
- recommendations for particular water-saving devices and their respective costings (infrared urinals, flow restrictors etc).

RECOVERY PHASE

Things you might have to think about after the immediate problem improves

Demonstration R (recovery)

Individually, prepare a Code of Practice for water usage in good times to adopt in your school community. Your Code of Practice should:

- set out principled ways of prioritising water usage when water is again plentiful
- be reflective of the theoretical and experiential research you have done in your project

Ensure that this presentation actually gets presented.

Project Management and Water Efficiency / Weighing up Water

Grading Master

DETAILED KNOWLEDGE

broad and deep knowledge, in detail, of the occurrence, causes, effects and aftermath of the chosen event, both in general and as illustrated in cases and accounts

~~broad and deep knowledge, in detail, of the occurrence, causes, effects and aftermath of the chosen event, both in general and as illustrated in cases and accounts~~

~~knowledge of the occurrence, causes, effects and aftermath of several aspects of the chosen event, both in general and as illustrated in and of cases and accounts~~

knowledge of ~~several aspects~~ **key features** of the chosen event ~~and of cases and accounts~~

PRINCIPLED MANAGEMENT

defensible decision-making that takes into account both the details of the situation and a well-formed set of general principles useful in choosing and prioritising a series of actions to achieve purposes

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A consistent and useful set of declared general principles is taken into account in the products

~~A consistent and useful set of declared general principles is taken into account in the products~~ **has been declared**

Purposeful products that, in general,

- are true to the event**
- reflect the declared principles or social norms for decision-making**

AUTHORITATIVE COMMUNICATION

compositions of clear and credible communications, fulfilling the three purposes, which raise the awareness of, educate and train, and win the confidence of the targeted audiences

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products that, in general, are true to the event

~~products that, in general, are true to the event~~ **inform the audiences of aspects of the particular phases**

A

B

C

Successful performance in some facets of the task (at least one of the descriptors above), without meeting task specifications in full

D

An attempt at undertaking the task

E

Notes

- It is vital that, as usual, assessment in each pole be carried out across the entire collection of students' demonstrations.
- A school can include a supplementary assessment pole of its own design when it is believed that the existing poles do not sufficiently cover the range of what students in that school have learnt specifically as a result of engagement in this task.
- Words that are ~~struck through~~ apply to a higher referent, but not the current one; words in **bold** do not appear in higher referents.