

# Weighing up Water

Students acquire and demonstrate a detailed knowledge of the causes and repercussions of critical water shortages generally, and of particular cases of such shortages.

Applying this knowledge, they compose three purposeful products targeting specific audiences — one for each of the following three phases of water shortage:

**Awareness Phase:** sensitisation to the possibility, causes, manifestations and repercussions of critical water shortage and to a range of preventative and remedial measures that might be taken in response to potential or actual water shortages

**Contingency Phase:** actions to be taken by various stakeholders should demand exceed supply of water in a community

**Recovery Phase:** actions to be taken once a water shortage crisis is over to ensure that adequate water supplies are secured and maintained

Students acquire a detailed knowledge of

- the water cycle and factors affecting it (e.g. global warming)
- specific cases of communities experiencing water depletion locally, nationally or globally including causes, repercussions, issues and remedial responses (e.g. damming, recycling, sustainable water usage, conserving, public/private practice)
- crises around water management in other eras e.g. the Sumerian civilisation
- how water has been captured, stored and used in Australia (over time)
- how water is captured, stored, allocated and used in their local community now
- domestic, agricultural and industrial demands on water (including quantitative and comparative data)
- a local community's water consumption and usage patterns (including comparative data)



## DEMONSTRATION K: Knowledge

*Individually in class*

Study in detail one case of a community that has experienced a critical shortage of water. In class time, you will be given information about a contrasting case

**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

#### Demonstration A (awareness)

*Sensitisation to*

- the fact that water is a scarce and precious resource that has to be wisely managed
- information, issues and different perspectives on rainfall, climate change and water collection, storage, usage and conservation
- local and international instances of critical water shortage through the ages.
- the amount of water actually used in the local community for different purposes

In small groups, organize an information booth/ station for a Water Expo at a designated community venue (which may be within the school). The Water Expo should reflect a broad and balanced range of relevant subject matter and could include static displays, models, performances, audio-visual presentations etc. It should incorporate information from different parts of the world and from different eras as well as the present local community.

Each group is to focus on a different topic.

### CONTINGENCY PHASE

#### Demonstration C (contingency)

*Things that various stakeholders could do in response to successive stages of a water shortage.*

- In small groups, develop segments of a unified multimedia presentation highlighting
- the different perspectives on water shortage (its causes, the major issues and acceptable remedial measures) of a range of key stakeholder groups in the local community (e.g. householders, local council members, farmers, shop-keepers, environmental groups, sporting clubs, factory operators etc as appropriate)
  - how / how much each stakeholder group uses water
  - how they might be affected by progressively more severe stages of water shortages and
  - how they might change their practices in response to the different stages of shortage.

The presentation should include a prioritising summary, in terms of what will have the most effect (to which all groups contribute).

The presentation is to be set up to play (unattended) at an appropriate public venue (e.g. local library, shopping centre).

### RECOVERY PHASE

#### Demonstration R (recovery)

*Practices that community members and organisations should adopt and provisions they should make after the water crisis has passed to equip the community for potential future water shortages.*

Individually prepare a Code of Practice for water usage in good times for your community to adopt. The Code of Practice should document principled ways of prioritising water usage when water is again plentiful, and draw on insights gleaned through engagement with the task.

*In dealing with different groups' perspectives on water usage, there are opportunities for developing critical literacy skills.*

# 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

~~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~~

**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

~~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~~

**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**

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

**An attempt at undertaking the task**

**A**

**B**

**C**

**D**

**E**

#### Notes

1. It is vital that, as usual, assessment in each pole be carried out across the entire collection of students' demonstrations.
2. 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.
3. Words that are ~~struck through~~ apply to a higher referent, but not the current one; words in **bold** do not appear in higher referents.