

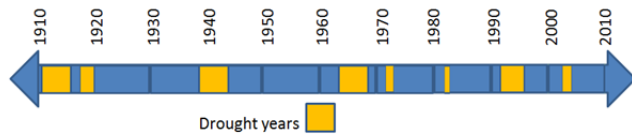
Australian Curriculum: Year 7 Geographical Knowledge and Understanding (Unit 1 Water in the world)

The causes, impacts and responses to an atmospheric or hydrological hazard

1

Before transformation: Sample Year 7 task

Refer to the timeline from the Bureau of Meteorology records of droughts in SA



Complete the following:

1. List the years that drought occurred in S.A.
2. Identify the most drought affected decade.
3. Can you identify a pattern in the S.A. drought history over the past 100 years?
4. Name 2 groups of people who would be affected by drought.

What's possible?

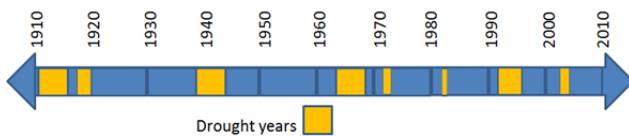
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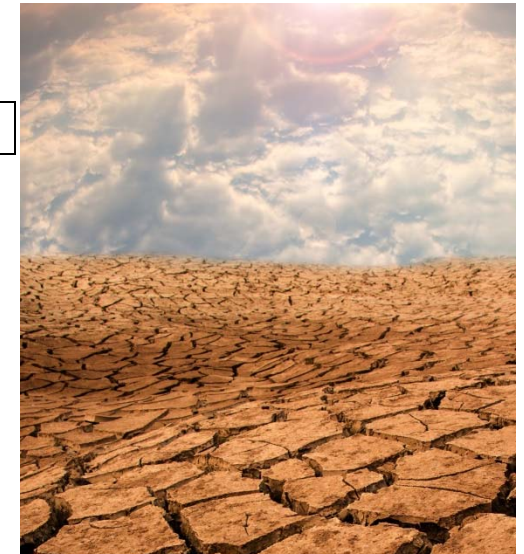
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Transformed task: Getting the students doing the thinking

Long term weather predictions could help people plan for a drought, but predictions are a bit like gambling or guessing.

Discuss in your group

1. How do we define a drought?
2. Who decides when dry weather becomes a drought?
3. If you were asked to predict when a drought might next hit South Australia:
 - a. What data and information would be useful?
 - b. How could you represent this data to make sense of it? What are the limitations of your investigation?
 - c. Who would want to know about this prediction? Who might this affect? How might it affect them?

**What do you think?**

In 2011 water engineer Shishutosh Barua made a breakthrough in drought forecasting by developing a software tool that can predict droughts six months in advance using rainfall and climatic variables.

4. What would you ask Dr Barua about his forecasting methods?
5. How could this (knowledge and understanding) change the way you and others think and act in the future?



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Annotations: How has the task been changed?

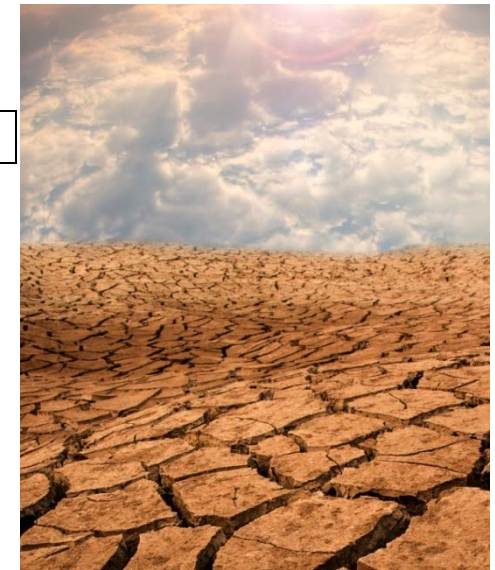
Transformed task: Getting the students doing the thinking

What did the teacher do?	Why?
Asked students to define a drought, and to consider who decides when dry weather becomes termed a drought.	So students could explore and construct ideas for themselves, before being told.
Presented a provocation and asked students to decide what data and information was needed and how it could be represented.	So students could formulate their own purposeful questions, and decide how to best organise and represent the data so that it could be easily examined and used.
Asked students to predict when the next drought might hit South Australia.	So students could apply the evidence they had found to look for a pattern, and create or generalise a rule.
Asked students to consider how the information they had learned might impact the way they and other people acted.	So students could consider the perspectives of different people and theorise different possible actions and their impact.

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