**Establishing priorities for solving problems**

**Levels:** 3-4 **NoS achievement aims:** Understanding about science, Participating & contributing   
**Topic:** Environmental studies **Contextual strands:** Living world , Planet Earth and beyond

**Rationale**

This activity encourages students to explore various aspects of complex issues. It encourages students to consider the interaction of science and diverse community views.

**What you need**

Six cards, each with a statement as follows:

* Get humans to Mars
* Find out what causes asthma
* Save the kakapo from extinction
* Provide clean drinking water for people in water-shortage areas
* Find out whether mobile phones cause damage to the brain
* Do something about lunch rubbish at our school.

**Focus**

* How do you decide what problems need to be considered for solving?
* Why can people have different views about what is important for problem solving?
* Will all problems concern all people?
* How do you decide which problem is more important than others?
* Why are some people’s view considered more significant or important than other people’s views?

**Exploration**

Note: This is a focusing activity, which could be used in preparation for environmental studies.

1. Show students the cards and ask, “What do you think is most important for scientists to focus on immediately?”

2. Get them to undertake research and discussion on the topics, then:

* Rank the cards in order of importance from 1 (most important) to 6 (least important)
* Defend/explain their ranking choices
* Explain what criteria they used when doing their ranking.

Suggestion: You might use the ‘fish bowl’ style of debate to do this. Students form a semi-circle with one chair (the fish bowl or hot seat) in the centre. The person occupying the hot seat has the right to present their opinion/point of view. When another student wishes to speak, they pick up the speaking stick from the floor near the hot seat. At this point the seated person may finish their sentence and then must vacate the hot seat for the incoming speaker.

3. As a class, discuss what criteria scientists might use (and how they might establish those criteria) when prioritising their own areas of study.

**Reflection**

* Did everyone agree about the order in which the cards should be ranked, or do we all have different priorities? What do you think caused the differences in priorities?
* Do you think you would have responded differently if you were students in a school in \_\_\_\_\_\_\_\_\_? (Insert a location that has a different lifestyle to the area in which your school is situated, for example, for country schools, name a New Zealand city or an overseas city, for city-based schools, name a country area or a city in a different country.) Do you think a different type of group would have responded differently? (For example, a group of students from a different year level, or a group of adults.)
* Was your opinion affected by what people in the hot seat said?
* Do you think scientists from different communities would give different values to the cards – or would they all agree on the order for ranking the cards?