**Stimuli**

Students sometimes find it difficult to know where to start with a task as open-ended as this. While it is hoped that students will appreciate the richness of opportunities for mathematical exploration, it may sometimes be useful to provide a stimulus as a means of helping them to get started on their explorations.

Possible stimuli that could be given to the students include:

|  |  |  |  |
| --- | --- | --- | --- |
| sport | archaeology | computers | algorithms |
| cell phones | music | sine | musical harmony |
| motion | e | electricity | water |
| space | orbits | food | volcanoes |
| diet | Euler | games | symmetry |
| architecture | codes | the internet | communication |
| tiling | population | agriculture | viruses |
| health | dance | play | pi (π) |
| geography | biology | business | economics |
| physics | chemistry | information technology in a global society | psychology |

**A possible mind map for the stimulus “water”**

During introductory discussions about the exploration, the use of brainstorming sessions can be useful to generate ideas. In particular, the use of a mind map has been shown to be useful in helping students to generate thoughts on this. The mind map below illustrates how, starting with the stimulus “water”, some possible foci for a mathematical exploration could be generated.

