

## **An Indian Perspective – Teacher Notes**

"The centre of all life is water" Anupam Mishra

In the Golden Desert of India traditional "rain harvesting" methods have survived over 600 years. When modern canals filled with sand or water hyacinths they became unusable in less than twenty years and Indian people looked to past ways to support their needs. Hillsides are sealed with clay to provide run off and the water is channelled about 12 metres underground to storage tanks to prevent water loss by evaporation. These are for communal use. They have been perfectly maintained by local people for centuries because of their strong respect for water. Some cisterns have statues embedded in the walls to indicate depth of water and the length of time the resource will remain. Each house has a similar sloping floor on the flat roof which channels water into tanks along the side of the house or bounding their courtyard. In the Golden Desert where rainfall can be 6cm per year, every roof collects water and there are 40 different names for clouds. In this country there is insufficient fuel to support sourcing water through evaporation of salty water in rural areas. Teachers and their classes may wish to visit:

http://www.ted.com/talks/anupam mishra the ancient ingenuity of water harvesting.html

- 1. How deep is it to reach groundwater? 100m
- 2. Can you drink this water? No, it is too salty
- 3. Why can't they use solar power? It is a rural area. There is no power grid
- 4. How many names do they have for clouds? 40 This is because clouds and rain are important
- 5. What is the first device they have for harvesting rain? A false catchment on a raised platform. Rainwater falls, runs down a sealed slope and is collected in deep tanks underneath
- 6. What is the second device? Houses have tanks to collect rainwater runoff from roofs and courtyards.
- 7. What 600 year old device was described? A canal to convey water from mountains to be stored in tanks.
- 8. Thirty years ago the government built a canal to bring water down from the Himalayas. What happened to it? It was choked with water hyacinth plants and wind blown sand
- 9. Give an example how local people have combined good engineering with art. They built beautiful and functional stairs. They used sculpture to indicate how long the water could be depended on.
- 10. What five things did the 2,000 year old tattoo represent?
  - The centre of life is water
  - Waves
  - Stairs
  - Trees
  - Flowers

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