Water

Exercise 45:

Solution 1(a):
All plants and animals on Earth require water. If we have no water on Earth, there will be no survival of life.

Exercise 47:

Solution 1(a):
Water present on the surface of the earth in the form of oceans, rivers, lakes, ponds and streams is called surface water. The water in rivers and lakes comes from rain and melting of snow on the mountains.
Some of the rainwater seeps through the soil on to the non-porous rocks below. It can be obtained by digging wells, sinking tube wells etc.

Solution 1(b):
Rainwater, oceans, rivers, lakes, streams, ponds and springs are natural sources of water. Dams, wells, tube wells, hand-pumps, canals, etc. are man-made sources of water.

Solution 1(c):

1. We get water from municipalities and bore-wells.
2. The source for municipality water is rivers and lakes whereas the source for bore-wells is ground water.
3. River, lakes and ground water is the source.
4. The quantity of water depends on its usage.
5. 5. We use the water in cleaning, drinking, cooking and bathing.

Exercise 52:

Solution 1:
The water gets polluted in rivers, lakes, ponds.

Solution 2:
Water gets polluted due to-

1. Emission of wastes from industries.
2. Washing of clothes, utensils near pond water.
3. Oil spill in oceans and rivers is also a factor which causes pollution.

Solution 3:

1. Death of aquatic animals.
2. Disruption of food chains.
3. Outbreak of diseases like cholera, hepatitis.

Solution 4:

1. Avoiding use of pesticides in crops.
2. Conserve water by turning the tap off when you do not need running water.
3. Try using environmental friendly household products like toiletries, soap-based household cleaning material, and washing powder as far as possible.

Exercise 53:

Solution 1:
We will need to create awareness among the people of our area about conservation of water.

Solution 2:
Rainwater which falls on roofs and terraces of buildings can be collected through pipes and stored in underground tanks or can be allowed to percolate into the soil and used to recharge the groundwater table.

Solution 3:

1. Never leave a tap running for a long time while you are washing your hands.
2. Turn off taps when you have finished using them.
3. Report leaking taps and toilets to teachers (one drop per second equals 7,000 litres of water wasted in a year).
4. Wash paint brushes in a bucket or ice cream container.
5. Nominate water monitors to check for leaks and running taps.
6. Ask you teachers about designing signs to display near taps and toilets that tell everyone at school how they can save water.
7. Tell your friends how to save water.

Solution 4.1:
Water has been important for people for thousands of years. Without water, there would be no life on earth. We use water in our houses for cooking, bathing and washing the dishes. Water is used to grow food. In many dry areas, farmers must bring water to the fields through canals and expensive irrigation systems**.** Industries and factories also use water. Fruits and vegetables must be cleaned before they can be processed and sold in supermarkets.

Solution 4.2:
Rainwater which falls on roofs and terraces of buildings can be collected through pipes and stored in underground tanks or can be allowed to percolate into the soil and used to recharge the groundwater table.

Solution 4.3:
The rain water is not salty because it is only water that evaporates into vapour and forms clouds. The salts, minerals and dissolved solids in the sea/ocean water remains back.

Solution 4.4: