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1. Look carefully at the picture of the river. Read the words given below.

Boat, flowing water, blue, fish, water-plants, river, foul smell, big ship, oil, river banks, factories, washing clothes, animals, other work, change, city.

Use these words to make a story. Give a title to your story also.



Answer-

Once upon a time, there was a river with full of clear blue water and lots of fishes. Water plants were also present which provided good atmosphere for the aquatic animals. A factory was started near the river and a city grew up near it. Goods required for the factory was supplied through the river with the help of big ship. Oil spills and effluents from the factory were discarded into the river. People from the nearby cities also bathed their animals and washed clothes in the river. This made the river foul smelling and filthy forever. It was no longer a river with clear water.

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Look at the pictures and answer the following questions:

1. What is the colour of the river where it begins?

Answer-

Water has no colour. When we observe water in a river from a distance we find it to be bluish in colour.

2. At some places, there are many fish in the river, at others there are only a few and at some places there are dead fish. What could be the reason for this? Discuss.

Answer-

Aquatic animals like fish need fresh water. In places where river is not polluted, many fishes would live in that water. Similarly in areas where factory wastes and domestic wastes are poured in the river it gets polluted and kills fishes and water plants.

3. What can be seen in the river before it reaches the village?

Answer-

Large number of fishes can be seen in the river before it reaches the village.

4. At which places did the colour of the water in the river change? Why did this happen? Discuss.

Answer-

The colour of the water in the river changes near towns and villages. It happened because of pollution created by the people throwing waste in the river.

5. Which of the places shown in the picture would you like to live in? Why?

Answer-

I would like to live in the place where the river started. The water is clean and pure and the environment is calm as it has many trees.

6. Would you like to change any of the things that you see in the picture? Why and how?

Answer-

I would like to remove all the waste available in the water of the river and banks. Due to these wastes the water is getting polluted.

7. Have you seen people throwing different things into rivers or water bodies?

Answer-

Yes, I have seen people throwing ashes of dead humans, coins, religious statues during festivals, garbage etc. in water.

8. What could be done to keep rivers clean? Discuss.

Answer-

People living near the river banks should not bathe their animals and wash their clothes in the river. The industrial waste and sewage should not be discarded into the river. Treatment plants should be set up to remove chemicals from the waste before letting it into the river.

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1. If you wanted to drink some water, from which part of the river would you like to drink? Why?

Answer-

I would like to drink some water at the place from which the river starts. The water at the beginning of the river is uncontaminated and pure for drinking.

2. In the last part of the picture the river flows into the sea. Have you ever seen the sea? Where? In a movie, or somewhere else?



Answer-

Yes, I have seen the sea. I have seen it in movies also. I once saw the sea when I went to Chennai.

3. Have you ever been near a river or sea? When?

Answer-

There is a river in my native and I visit it when I go there. I saw a sea during my visit to Chennai.

4. Show with your hands, how the waves in the sea move.

Answer-

The waves in the sea moves up and down.
Should be done by the students.

5. Is the water from the sea drinkable? Why?

Answer-

The water from the sea is not drinkable as it is saline.

6. Do you think that there would be changes taking place in a river, pond or stream at different times of the year? What kind of changes would these be? Discuss.

Answer-

Yes, there would be changes thaking place in a river, pond or stream at different times of the year. The water level would be maximum during the rainy season and would be lesser in the month of April and May.

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7. Will there be the same amount of water in the ponds or rivers during the rainy season and in summer?

Answer-

No, there will not be the same amount of water in the ponds or rivers during the rainy season and in summer. Water level will be more in the rainy season and will be lesser in summer.

8. Is there a pond, river or lake near your town or city?

Answer-

Yes, there is a pond near my city.



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Find out-

1. Are there any changes in the water during summers, the rainy season and in winters?

Answer-

Yes, in summer the level of water is less, in rainy season water level is more and in winters the water level is medium.

2. What are the different kinds of water animals found there?

Answer-

The different kinds of water animals like fishes which are found there are Katla, Rohu, etc. of various sizes.

3. What kind of trees and plants grow around it?

Answer-

Thick trees, grasses and bushy plants grow around it.

4. What are the kinds of birds that come there?

Answer-

Swan, crow, eagle etc. are the kinds of birds that come there.

5. Have you ever seen or read about floods? Where?

Answer-

Yes. I have read about floods which occurred in Bihar.

6. What happens when there is a flood?

Answer-

Railway tracks, roads, houses etc. are inundated when there is a flood.

7. Have you seen dirty water in a river or pond? Where?

Answer-

Yes. I have seen dirty water in a river and in ponds in my native.

8. How would you know if the water is dirty? If the water looks clean, can you be sure that it is alright to drink that water? Discuss.

Answer-

If the water is dirty it looks muddy and gives a foul smell. If the water looks clean, it is not safe to drink that as it may contain bacteria and germs.

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How does Water become Dirty?

1. From where do you get your drinking water? A river or a lake?

Answer-

I get drinking water from a river.

2. Do you think that like the river in the picture your river or lake can also be affected?

Answer-

Yes, river located in my town is affected by pollution.

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3. Fill about half of each bottle or glass with water. Make sure that all have the same amount of water. Now, one by one, put each of the things in the water. For example – haldi in the first glass, oil in the second glass, soda in the third glass until you have one thing in each glass. Mix each thing in the water and see what happens. Write your observations in the table. What did you observe? Put (✓) mark in the right places.

| Things | Dissolved (mixed) in water | Did not dissolve in water | Colour of water changes | Colour of water does not change |
|---------------------------------|----------------------------|---------------------------|-------------------------|---------------------------------|
| Sugar | | | | |
| Salt | | | | |
| Lemon juice | | | | |
| Haldi | | | | |
| Soap water | | | | |
| Flour | | | | |
| Dal | | | | |
| Sherbet | | | | |
| Cooking soda | | | | |
| Oil (Mustard, Til or any other) | | | | |

Answer-

| Things | Dissolved (mixed) in water | Did not dissolve in water | Colour of water changes | Colour of water does not change |
|---------------------------------|----------------------------|---------------------------|-------------------------|---------------------------------|
| Sugar | ✓ | | | ✓ |
| Salt | ✓ | | | ✓ |
| Lemon juice | ✓ | | | ✓ |
| Haldi | ✓ | | ✓ | |
| Soap water | ✓ | | ✓ | ✓ |
| Flour | | ✓ | ✓ | |
| Dal | | ✓ | ✓ | |
| Sherbet | ✓ | ✓ | | ✓ |
| Cooking soda | ✓ | | | ✓ |
| Oil (Mustard, Til or any other) | | ✓ | ✓ | |

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Now on the basis of your observations tell –

4. Do all things dissolve in water?

Answer-

No, all things do not dissolve in water.

5. Does the colour of the water always change?

Answer-

No, the colour of the water does not always change.

6. Did oil dissolve in water? How can you say whether it has dissolved or not?

Answer-

No, oil does not dissolve in water. Things which are insoluble in water either come up or settle down.
Example – Oil floats on water.

7. Colour of the water may not change even after some things are dissolved in it. Would you say that these are absent in water?

Answer-

Things which are dissolved in water are always present in the water.

8. Imagine how it would be if things like sugar, salt, lemon juice, sherbet, etc., could not dissolve in water!

Answer-

If things like sugar, salt, lemon juice, sherbet, etc. could not dissolve in water, cooking food and preparing things like cold drinks, coffee, tea etc. will not be possible.

9. Imagine how it would be if things like stones, chalk, plastic and garbage would dissolve in water!

Answer-

If things like stones, chalk, plastic and garbage would dissolve in water, makes water dirty.

10. How is drinking water cleaned in your house?

Answer-

The drinking water in our house is cleaned using water filter.

11. Find out the many different ways of cleaning water at home.

Answer-

By adding alum to the clean water cleaning can be done.
The method of evaporation can be followed in cleaning dirty water.

12. Draw pictures showing any two ways of cleaning the water.

Answer-



The other picture should be drawn by the students.