

# Environmental Studies

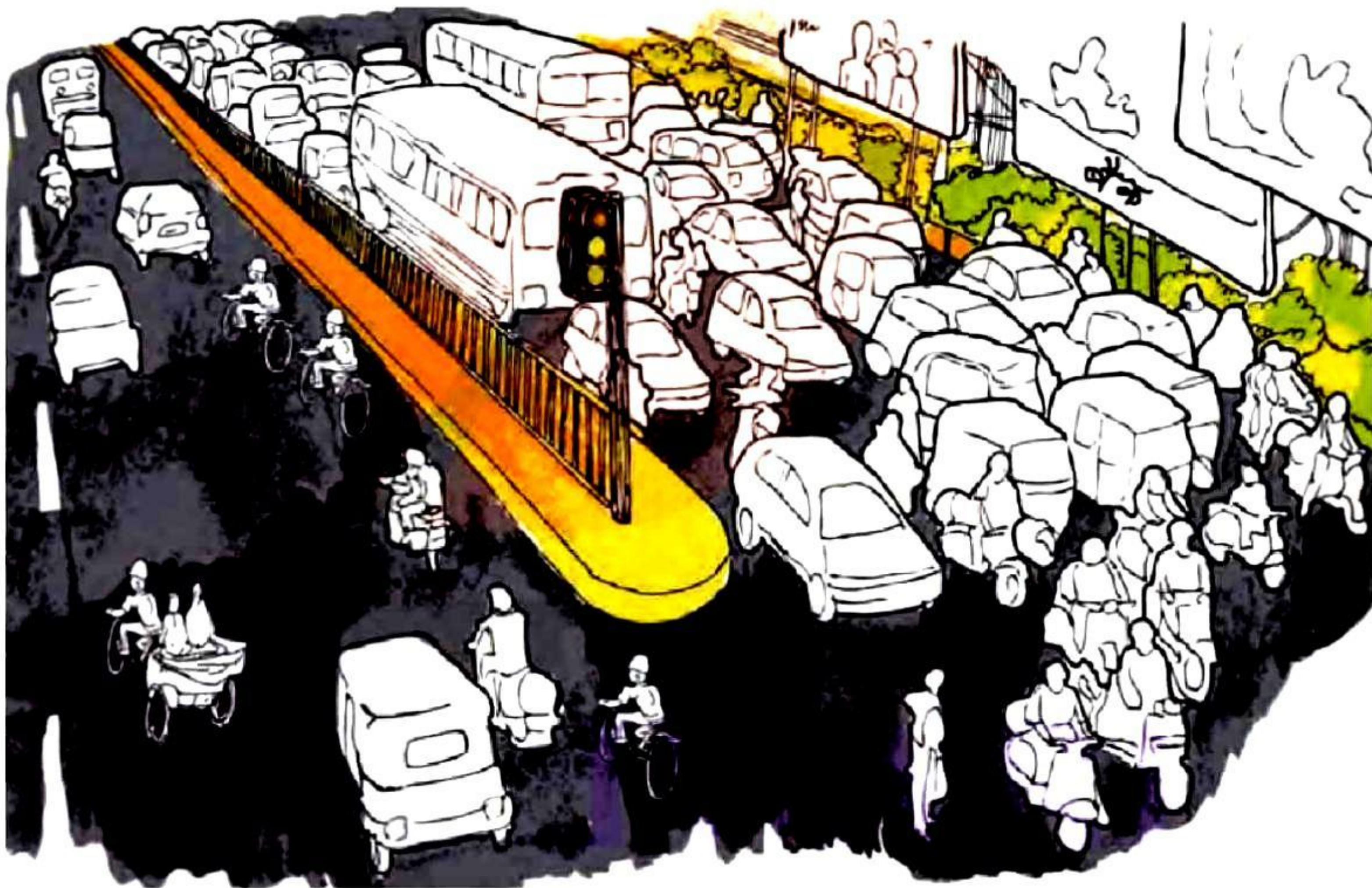
## (Chapter – 12) (What if it Finishes...?)

(Class – 5)

### A bus journey:

#### Question 1:

- What are the different kinds of vehicles that you can see?
- What do you think they need petrol and diesel as fuel?
- Which of the vehicles do you think give off smoke? Put a red mark on those.
- Which are the vehicles run without petrol and diesel?
- What problems do we face from the speeding vehicles?



#### Answer 1:

- I can see vehicles like cars, buses, auto rickshaws, motorcycles, cycle etc.
- Cars, buses and motorcycles need petrol, diesel or CNG while cycles do not need any such fuels.
- Marks on the vehicles other than cycles
- Bicycle is one of the vehicles that doesn't run on gas.
- Speeding vehicles causes noise pollution, more smoke, and it is difficult to cross the road.



**Tell:**

**Question 2:**

Do you ride a bicycle? If yes, where all do you go on it?

**Answer 2:**

Yes, I ride a bicycle, I go to my school, playground, market and to meet my friends using it.

**Question 3:**

How do you come to school?

**Answer 3:**

I come to school by school bus or by my cycle.

**Question 4:**

How do your family members go to work from home?

**Answer 4:**

My father uses car, my mother go by metro rail while my uncle go by motorcycle.

**Question 5:**

What problems can we have from smoke coming out of vehicles?

**Answer 5:**

Problems like coughing, nausea, headache and diseases related to lungs can have from smoke coming out of vehicles.

**Question 6:**

What kind of problems can we face from noise of vehicles (honking)?



**Answer 6:**

Noise pollutions makes environment noisy, damanging hearing power, problems to sick people. people who are walking on road, faces difficulties. communincating, severe Headaches and sleep deprivations are some of the major problems people face.

**Find out and discuss:****Question 7:**

Which states of India have oil fields?

**Answer 7:**

In India oil fields are in Assam, Gujarat and the coastal areas of Maharashtra and Andhra Pradesh.

**Question 8:**

Besides oil, what else is found deep inside the earth?

**Answer 8:**

Besides oil, we found minerals like iron, copper, bauxite, gold etc, deep inside the earth.

**Question 9:**

Find out the traffic rules and discuss them in the class.

**Answer 9:**

start discussion in the class with fellow students on the topic of traffic signals.

**Question 10:**

We should use petrol and diesel judiciously. Think why?

**Answer 10:**

Petrol and diesel are obtained from crued oil, This is available in limited quatity. If we use it carelessly and then future people will not get these to use.



**Write:**

**Question 11:**

What all can vehicles run on?

**Answer 11:**

Vehicles can run on petrol, diesel, CNG, LPG, battery and solar energy.

**Question 12:**

What kinds of problems will we face, if the number of vehicles keep on increasing? For example, more traffic on the road. Talk to your elders and write about it.

**Answer 12:**

If the number of vehicles keep on increasing on the road then besides heavy traffic, problems like air pollution, noise pollution, accident etc. can arise.

**Question 13:**

Manju said, "Why doesn't everyone use a bus?" What do you think, why don't people travel by buses?

**Answer 13:**

I think poor people prefer bicycle than to spend daily on buses while the rich ones use cars for convenience and also maintain their status.

**Question 14:**

Suggest some ways to deal with the problems arising out of the growing number of vehicles.

**Answer 14:**

To control the growing number of vehicles people should prefer public transport system like buses, trains, metro train etc. This problem can also be effectively dealt with by marking car pool i.e sharing one's car with their colleagues, other people etc.



**Question 15:**

What are the benefits, if we switch off the engine of the vehicles at the red light on the road?

**Answer 15:**

if the people switched off the engines at red light there will be following benefits for this: -

- (1) Saving of petrol, gas
- (2) lower down the engine noise to minimum
- (3) lower down the pollutions level.
- (4) lower the release of heat from the vehicles.

**Find out and write:**

**Question 16:**

How much oil?	Scooter	Car	Tractor
How much petrol/diesel can be filled at a time?			
How far can it go on one litre of petrol/diesel?			

**Answer 16:**

How much oil?	Scooter	Car	Tractor
How much petrol/diesel can be filled at a time?	8 litres	50-60 litres	40-60 litres
How far can it go on one litre of petrol/diesel?	40-50 km	15-18 km	10-12 km



### Question 17:

Oil	Rate of one litre in 2017 (Oct)	Rate of one litre in 2019 (Oct)	Rate of One litre in 2021 (Oct)
Petrol	Rs 29.91	Rs 43.52	Rs 67.86
Diesel	Rs 18.91	Rs 30.48	Rs 58.97

- In 2021, as compared to 2019 the rate of petrol went up ..... by rupees. The rate of diesel increased by..... rupees.
- What was the difference in the rates of petrol and diesel from 2017 to 2019 and 2019 to 2021?

### Answer 17:

- In 2021, as compared to 2019 the rate of petrol went up by 24.34 rupees. The rate of diesel increased by 28.49 rupees.
- The difference in the rates of petrol and diesel from 2017 to 2019 and 2019 to 2021 are:  
**Petrol:** 13.61, 24.34  
**Diesel:** 11.57, 28.49

### Find out:

### Question 18:

What is the price of petrol and diesel in your area?

### Answer 18:

In our area the price of petrol is 48 rupees/litre while that of diesel is 34 rupees/litres.

### Question 19:

Why are the prices of petrol and diesel going up?



**Answer 19:**

The prices of petrol and diesel are going up because its production is limited while consumption is increasing day by day.

**Question 20:**

In one month how much petrol and diesel is used in your home? What is it used for?

**Answer 20:**

In our home about 100 litres of petrol and 10 litres of diesel are used on conveyance and generator.

**See the poster and write:**

**Question 21:**

Where all is oil used?

**Answer 21:**

Oil is used as fuel for vehicles, for cooking food, lighting, dry cleaning, to run machines and making plastic and paints.

**Question 22:**

Where is diesel used? Find out.

**Answer 22:**

Diesel is used to run cars, buses, trucks, tractors, trains and generators, Besides, it is also used to run machines in factories.

**Think and discuss:**

**Question 23:**

What would happen if you don't get petrol or diesel for a week in your village or town?



**Answer 23:**

If we don't get petrol or diesel for a week in our area, life will come to a standstill and the crisis would badly affect the transport system. Machines used in factories and agriculture works will also become non-functional. We will not be able to get electricity from generators either. In other words, life will be messed up.

**Question 24:**

Suggest some ways to save oil.

**Answer 24:**

Following measures could be taken to save oil:

- (i) In place of using personal vehicles, we should use public transport system like buses, trains or metro trains etc.
- (ii) We should prefer walking on foot or using bicycle.
- (iii) We should keep our vehicles switched off on red lights.
- (iv) We should utilize solar energy for different purposes.
- (v) Before cooking, pulses, rice etc. should be soaked in water.

**Discuss:****Question 25:**

Have you ever collected dry wood or made cow dung cakes? How are they made?

**Answer 25:**

Yes, once I have collected dry wood and also made cow dung cakes. To make cow dung cakes, balls of cow dung are made and then these are flattened to make round and flat surfaces. After that these are dried up in the sunlight.

**Question 26:**

Do you know anyone who collects dry wood or leaves to be used for lighting a chulha?



**Answer 26:**

Yes, I know a few people living in my village who collect dry wood or leaves for fuel.

**Question 27:**

Who cooks food in your family? What about other families in your area?

**Answer 27:**

My mother cooks food in my family. In other families in my area the ladies or servants cook food.

**Question 28:**

If they cook food using wood or upla (cow dung cakes), what difficulties do they face due to smoke?

**Answer 28:**

The people who cook food using wood or upla may suffer from problems like coughing, nausea, headache, and lung diseases.

**Question 29:**

Can Durga use anything else instead of wood? Why not?

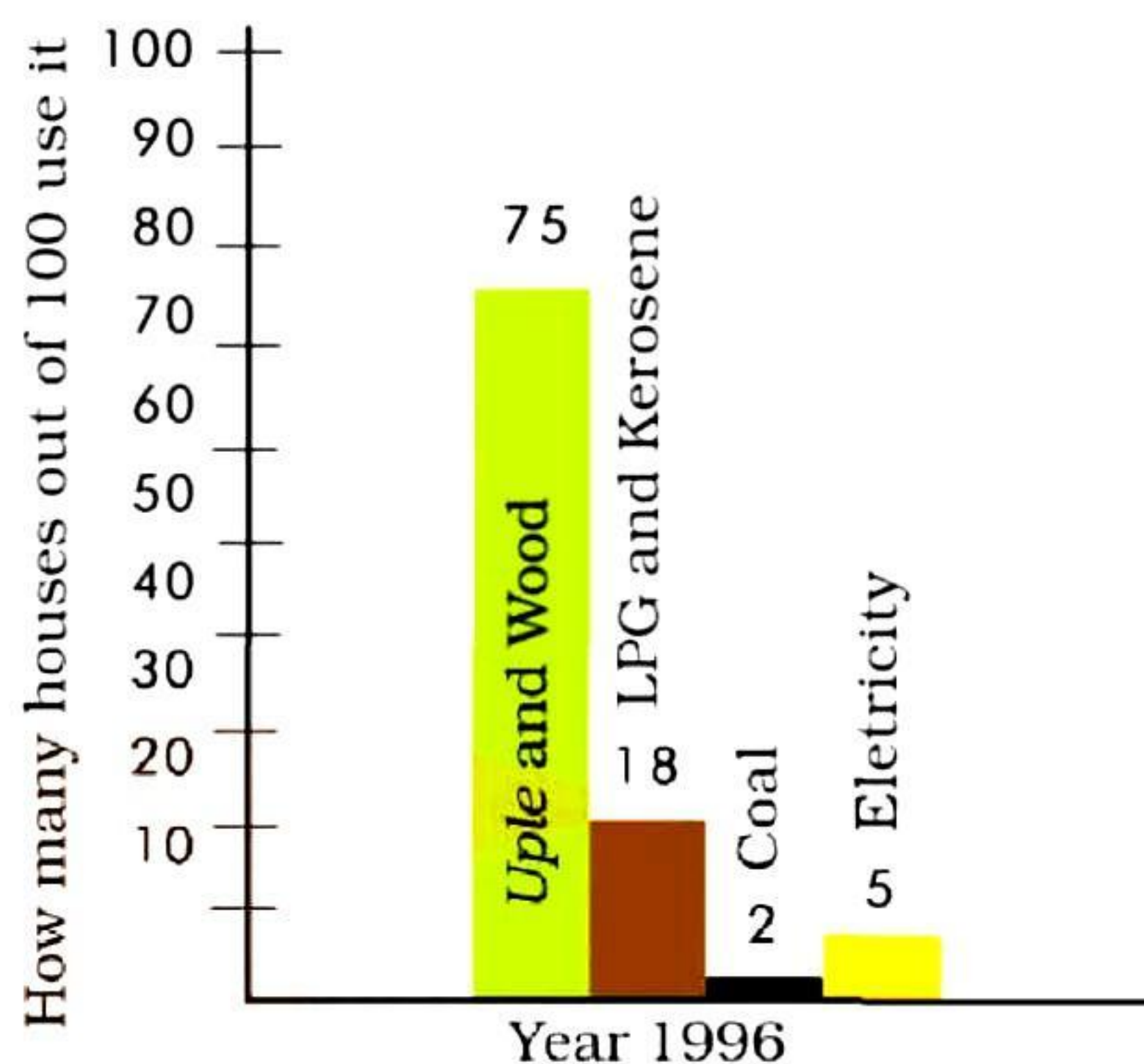
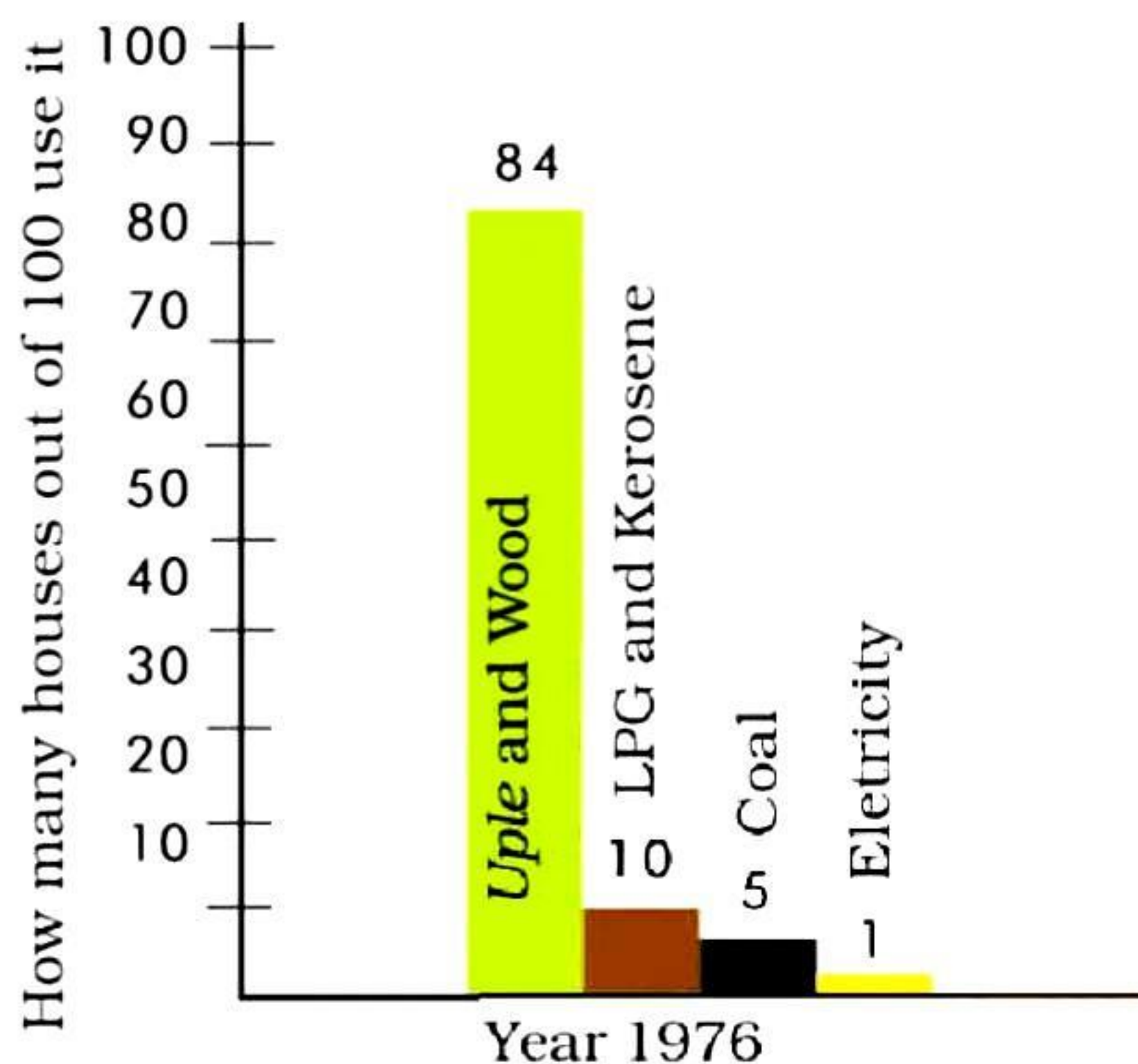
**Answer 29:**

Since Durga is poor, she is unable to use anything else instead of wood.

**Question 30:**

**Change in fuel use over twenty years:**





- In year 1976, out of 100 how many houses used uple and wood?
- Which was the fuel used the least in 1976?
- In 1976, LPG and kerosene were used in \_\_\_\_ houses and in 1996 this increased to \_\_\_\_\_. This means that in twenty years their use increased by \_\_\_\_\_%.
- Out of 100, how many houses were using electricity in 1996?
- Which fuel was used the least in 1996? What percentage of houses used it in the year 1976?

### Answer 30:

- In 84 house.
  - Electricity.
- In 1976, LPG and Kerosene were used in 10 houses and in 1996 this increased to 18. This means that in twenty years their use will be increased by 80%.
- In 75 house.
  - Coal was used the least in 1996. In 1976 it was used in 5% of houses.

### Find out from your elders:

### Question 31:

When they were young what was then used to cook food at home?



**Answer 31:**

When they were young, coal, wood, upla were used to cook food at home.

**Question 32:**

In the past 10 years use of which cooking fuel has increased in your area? Use of which fuel has decreased?

**Answer 32:**

In the past 10 years use of electricity and LPG has increased while use of wood, upla, coal, etc. has decreased.

**Question 33:**

Guess the use of which fuel would increase and which would decrease in the next 10 years.

**Answer 33:**

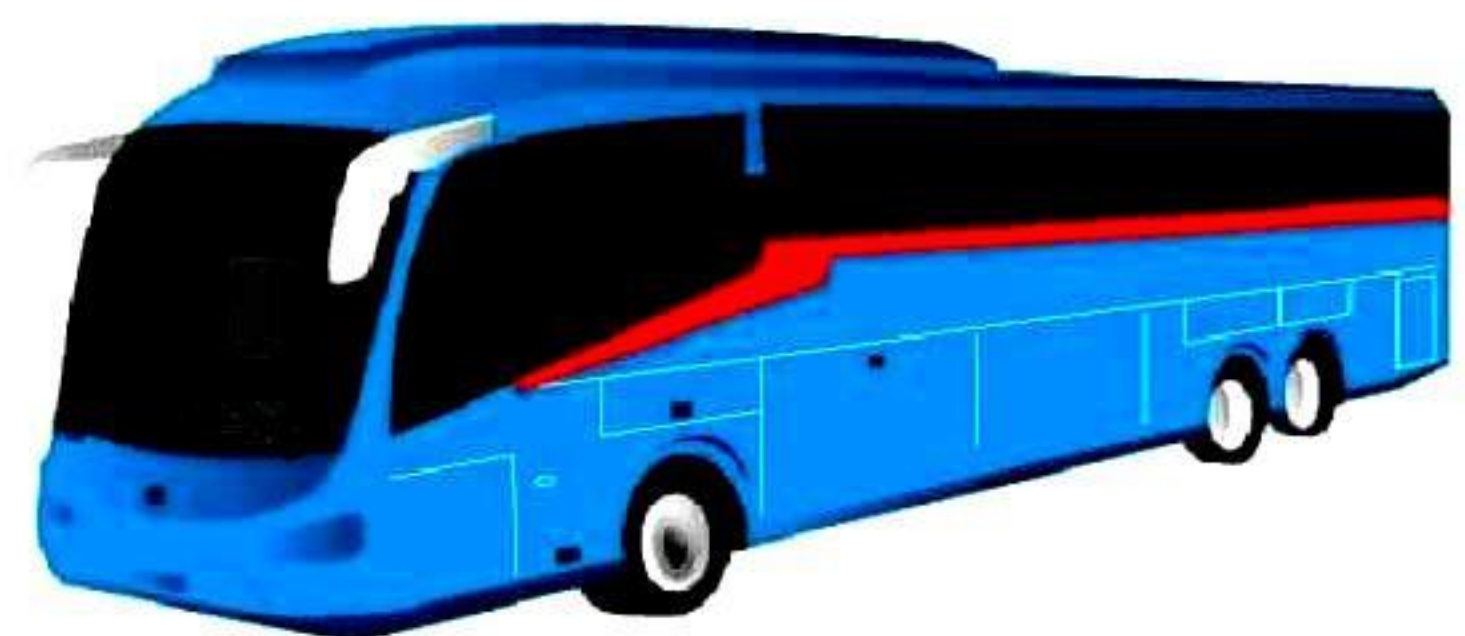
I guess in the next 10 years, use of electricity and LPG would increase while that of wood, coal and upla will decrease.

**What we have learnt:****Question 34:**

Imagine that a company has given you a chance to design a new vehicle like a mini bus. What kind of vehicle would you design? Write about it. Draw a picture and colour it.

**Answer 34:**

I will design a bus which is environment friendly, highly fuel efficient and especially designed keeping in view the need of handicapped, children and elder people.





### **Question 35:**

While making the design, who did you plan to take care of:

old people \_\_\_\_\_

children \_\_\_\_\_

those who cannot see? \_\_\_\_\_

### **Answer 35:**

Old people - easy to climb stairs, openable platform to climb up/down wheelchair.

Children - close windows, padded seats and handle bars.

Those who cannot see? - seat number mentioned with the help of braille, guided railing to climb up/down, seat handles/ seat belt.

### **Question 36:**

Look out for news reports on oil. Cut these and make a collage. Put up a chart in your classroom. Also write your own views on these news reports.

### **Answer 36:**

Do yourself

### **Question 37:**

Make a poster with a message on saving fuel. Write a slogan too. Where would you like to put up this poster?

### **Answer 37:**

You can use the following slogans for making posters:

" Oil is precious - Save it"

" Every drop is precious- Let not waste it"

" Save oil world'

We would like to put up this poster at various places like parks, cross roads, in our colony etc.