



CHINMAYA INTERNATIONAL RESIDENTIAL SCHOOL  
HOLIDAY ASSIGNMENT – Dec 2009  
Class 7 and 8



Dear Children,

This year's holiday assignment focuses on the issue of climatic change that has gained prominence in the recent years. Carefully observe the cartoon below:



*"Hargrove, what's all this I hear about your living in constant fear of the polar ice caps melting?"*

Although it appears funny, there seems to be some subtle truth in the message. The current scenario leads to many questions that appear to have no definite answer. Climate change and global warming – How serious is this issue? Are we prepared for the change? What shall be the future of this earth? How will it impact the future generation? Is climate change issue being hyped up for political reasons?

This year's holiday assignment shall help you to gain some insight into this issue. There are three major tasks to be completed:

**Task 1** Watch the following video and write a 100 words scientific commentary on the issue being discussed in the video and its implication on human life. Use as much scientific terminology as possible.

<http://www.youtube.com/watch?v=rkJUJ5-PL-0>

**Task 2** The city of Copenhagen figures quite frequently in the media these days in light of an important international event of scientific interest. Follow the related news throughout the month of December and write a 200 words summary on the events, proceedings and decisions that transpired at Copenhagen.

**Task 3** Any scientific activity is supported by mathematical data and analysis. The activity described below shall help you in appreciating the methods of data collection and data analysis:

Identify a vantage point in your city where the traffic is quite active and position yourself at a safe place for data collection. Your task is to count the number of vehicles of different types heading in one direction for a period of 30 minutes during the peak hour. Tabulate your data as follows:

| Vehicle type                                 | Number of vehicles counted in 30 minutes | Average Carbon Monoxide emission per vehicle (g/km) | Total Carbon Monoxide emission (g/km) |
|--|--|---|---------------------------------------|
| Two wheelers (Petrol run bike and scooters)  |  | 1.5   |                                       |
| Three wheelers (Petrol)                      |  | 2.25  |                                       |
| Four wheeler (Petrol cars)                   |  | 2.3   |                                       |
| For wheelers (Diesel run lorries and trucks) |  | 0.95  |                                       |

(You can presume that all three wheelers and cars passing by are petrol driven)  
Complete the table above by making appropriate calculations. Write appropriate conclusions with regards to the contribution of each type of vehicle to the total Carbon Monoxide emission during the period of 30 minutes in that location. Draw a pie chart if possible.

**Instructions to the students**

1. The assignment must be written in A4 sheets.
2. Computer printouts are not accepted – assignments should be handwritten.
3. Appropriate photographs and pictures can be included.
4. Plastic folders should be avoided. Design your own folder of A4 size using materials like chart paper, cloth, jute etc. Extraordinary fancy decorations are not encouraged.
5. This assignment is to be handed over to your class teacher after you come back from the vacation.

**Criteria for evaluation of the assignment**

1. Content and originality
2. Research
3. Presentation (not decoration)
4. Appropriateness of diagrams, pictures and photographs.

 Happy Holidays 