

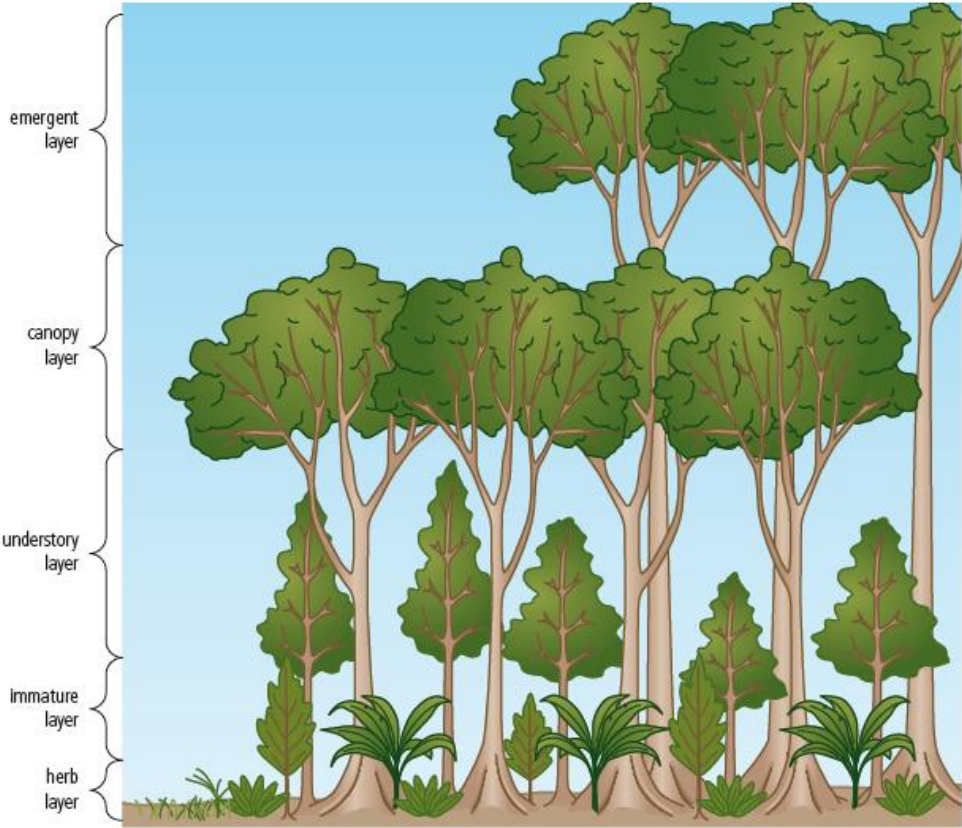
**ZOO-573**

**Lab Activity -4**

**Name:**

**Date:**

**A. Rainforests for the future**



Answer the following questions. Use the websites and books to help you, and read as much as you can before answering the questions as fully as possible.

1. Where are rainforests found?
2. Why are they found there?
3. What is special about the structure of a rainforest?
4. Why are rainforests especially valuable ecosystems?
5. What area of the Earth do they cover?
6. Why are they often called 'biodiversity hotspots'?
7. Why are there so many species and such a high diversity in rainforests?
8. What is the role of rainforests' in conserving global biodiversity?
9. Why are rainforests vulnerable to disturbance and destruction?

## B. Greenhouse gas emissions

- a) What are the main greenhouse gases emitted?
- b) What are the main sources of (i) methane and (ii) nitrous oxides

## C. Urban air pollution

	NO <sub>2</sub> / $\mu\text{g m}^{-3}$	Particulates / $\mu\text{g m}^{-3}$
London	28–60	27–36
Athens	10–50	31–48
Berlin	15–26	23–31
Brussels	28–49	27–59
Paris	30–58	22–24

The data above shows the urban air pollution for a number of European cities.

- a) Which city has the highest levels of nitrogen dioxide? Give the range of values of NO<sub>2</sub> in that city?
- b) Which city has the lowest levels of particulates? State the range of particulate matter for that city?
- c) Which city do you think has the worst air quality? Justify your answer.

- d) What are the main causes of poor air quality in urban areas? How have the causes changed over time?
  
- e) In what ways is it possible to manage urban air quality?