C7 Atmosphere FACT SHEET

Atmosphere	
1. Name the 2 main gases in the atmosphere, with the percentage of the atmosphere they make up	**Nitrogen 80%** **Oxygen 20%**
2. Name another gas which is present in small amounts	Carbon dioxide, water vapour, noble gases
3. Why aren't we sure how the atmosphere was formed?	• Not enough evidence • So long ago/ no-one was there
4. What made the first atmosphere?	**Volcanoes**
5. Which gas made up most of the first atmosphere?	Carbon dioxide
6. Which planets have atmospheres like the first Earth atmosphere?	Mars and Venus
7. How did oceans form?	• **The Earth was cooling** • **So steam condensed** • **To make rain**
8. List 3 ways that carbon dioxide was removed from the atmosphere	• Dissolved in oceans • Used by plants in photosynthesis • Locked up in sedimentary rocks, e.g. fossil fuels and limestone
9. What produced the oxygen?	**Plants and algae**
10. Name the reaction plants do, using carbon dioxide and producing oxygen	**Photosynthesis**
11. Write the word equation for photosynthesis	Carbon dioxide + water→ glucose + oxygen
12. Write the balanced symbol equation for photosynthesis	$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$
Atmospheric pollution	
13. Name a major source of atmospheric pollution	**Burning fuels**
14. List 2 elements in most fuels	**Carbon and hydrogen**
15. Name an element in some fuels	Sulphur
16. Which gas is formed from the partial combustion of carbon?	Carbon monoxide
17. Which gas is formed from the complete combustion of carbon?	Carbon dioxide
18. Name gases which can be released when a fuel which contains only carbon and hydrogen is burned	• **Water vapour** • **Carbon monoxide** • **Carbon dioxide** • **Nitrogen oxides**

19. Name gases which can be released when a fuel which contains carbon, hydrogen and sulphur is burned	• Water vapour • Carbon monoxide • Carbon dioxide • Sulphur dioxide • Nitrogen oxides
20. How are nitrogen oxides produced when a fuel is burned?	• Nitrogen in the air reacting with oxygen • Because of the high temperatures
21. What forms particulates in the atmosphere?	• Solid particles • Unburned hydrocarbons
22. Which gas is toxic, colourless and odourless? (so you can't see it or smell it?	Carbon monoxide
23. Which 2 gases cause acid rain and breathing problems in humans?	• **Sulphur dioxide** • **Nitrogen oxides**
24. What causes global dimming and health problems for some humans?	particulates
The greenhouse effect	
25. Name 3 greenhouse gases	• **Carbon dioxide** • **Methane** • **Water vapour**
26. Why is the greenhouse effect important for life?	**Keeps Earth warm enough for life**
27. Outline how the greenhouse effect warms the Earth	• Shortwave radiation from the Sun reaches the Earth • It is reflected from the Earth • When it is reflected, the wavelengths are shorter • Most of the radiation goes back into space • Some is trapped by the layer of greenhouse gases • And reflected back to Earth
28. Describe 2 human activities that increase carbon dioxide levels in the atmosphere	• **Burning fossil fuels** • **Deforestation**
29. Describe 2 human activities that increase methane levels in the atmosphere	• **Cattle** • **Growing rice**

Global warming	
30. What is global warming?	**Increase in the Earth's temperature**
31. Why might we not be able to rely on reports about global warming in the media?	Difficult to model climate change So models can be simplified/ based on only some evidence So reports can be biased
32. Describe 4 possible effects of global warming	• **Ice caps melt** • **Increase in sea levels** • **Increase in flooding** • **More droughts** • **More extreme weather** • **Species may become extinct** • **Species migration patterns might change**
33. What term means 'the total amount of carbon dioxide and other greenhouse gases emitted over the full life cycle of a product, service or event'?	**Carbon footprint**
34. How can the carbon footprint be reduced?	Release less carbon dioxide and methane
35. Describe ways to reduce carbon dioxide emissions	• **Burn less fossil fuels (use less electricity, use renewable sources for electricity, drive cars less, turning heating down)** • **Reduce deforestation**
36. Describe ways to reduce methane emission	• Reduce cattle • Reduce rice growing