D4.3 Climate change

What the Cell · DP Biology · note-taking sheet · SL statements D4.3.1–8

Name _____ **Date** _____

How to use this sheet: go through the slides and videos with it, then close them and write from memory. Use your own words and add page numbers from the book (pp. 820–833) where you want more detail.

Guiding questions. What is driving climate change? How does climate change affect ecosystems?

D4.3.1–2 Causes and feedback

Gas	Human sources
Carbon dioxide	
Methane	

Draw one positive feedback loop. What does positive mean here?

D4.3.3–4 Forests and ice

How could a boreal forest change from a carbon store to a carbon source?

Species	Depends on	Risk
Emperor penguin		
Pacific walrus		

D4.3.5–6 Oceans and ranges

How can warmer surface water reduce upwelling? What is the effect on food chains?

Describe one upslope and one poleward shift. Why can some species not move further?

D4.3.7 Coral reefs

Threat	Cause	Effect on corals
Acidification		
Bleaching		

D4.3.8 Sequestration

Describe afforestation, forest regeneration and restoring peat wetlands. Give the Hinewai Reserve and a local example.

Before you finish

Tick the ones you can explain without notes. Circle anything to ask about.

- ☐ Greenhouse gases
- ☐ Feedback
- ☐ Boreal forests
- ☐ Polar species
- ☐ Upwelling
- ☐ Range shifts
- ☐ Acidification
- ☐ Bleaching
- ☐ Sequestration