Year 12 Biology

Textbooks and comments

The Fiji Ministry of Education Biology text may be used with certain cautions. It will be supplemented with the following two texts:

- Discovering Design with Biology (Paul Madtes and Jay Wile)
- The Wonders of Creation (Creation Ministries International)

Ministry of Education Biology Text: Deletions and Explanations

Page 11 – two types of cells are listed as “primitive” and “modern”. There are no primitive or modern cell types because all cells were created during the same week of creation. A better terminology would be “simple” and “complex”.

Page 93 – delete this page. Fish **did not** develop into more complex species through evolution.

Pages 57 – 67 – This chapter has been expanded to include the MoE text PLUS counterarguments from a creationist viewpoint. To supplement this chapter use content from the two prescribed texts above.

Pages 185 – 193 – Give both sides of the controversial climate change / global warming issue. Many scientists have different views on this topic. See “The Wonders of Creation” p. 100 – 102 and the articles below.

Climate Change Controversy

… the fact that warming has occurred does not necessarily mean that it will continue.

Much of the concern over ‘global warming’ or ‘climate change’ results from computer models that predict continued increases in global surface temperatures as a result of increasing atmospheric carbon dioxide.

Failure of past predictions is a good reason to view current ‘doomsday’ predictions with skepticism.

A complex controversy

It is a fact that there has been a measured 20% increase in atmospheric CO2 concentration from 1958 to 2007, from 315 to 380 ppm (parts per million). Levels are currently some 35% or more above pre-industrial concentrations. Burning fossil fuels undoubtedly contributes. And everyone agrees that CO2 acts as a greenhouse gas, and therefore adding increased amounts of CO2 to the air should cause more heat to be trapped and warm the globe, all else being equal. But that does not suffice to resolve the other issues that are lumped together under the broad heading of ‘global warming’. (And all else is not ‘equal’.)

For example, even establishing whether the world is actually getting hotter is not as simple as it might at first seem. The air temperature can show an increasing trend, while the ocean shows the opposite (independent of whether or not ice is melting).

However, even consensus that the world is getting definitely warmer would not automatically resolve the other matters, such as:

Is any heating (or present climatic trends of any sort, e.g. droughts, hurricanes, etc.) actually caused by human activity?

Opinions vary on whether any trend is simply cyclical. Natural cycles might well swamp any human activity. Serious claims have been made for the linking of climate, and especially Earth’s temperature, to natural effects, e.g. sunspot cycles—although others have claimed that sunspot cycles can only account for about 20% of the recently measured warming trend.

Would the effects of global warming on humanity be a net disaster, or a net gain?

For the individual, a particular climate change, if it occurred, could be a benefit or a liability. Simplistically put, if your great-great-grandchildren own beachfront property that disappears, they will be worse off, but if they were in a region that has been transformed into beachfront, they could benefit. If they live in Iceland and could soon plant vegetables where previously glaciers ruled, they might think it wonderful, but if in a subtropical region that becomes much more oppressively steamy with increased hurricane activity and climatic extremes of drought and flood, they will likely think the opposite.

The reality is that climate is so complicated that it is hard to predict with certainty what is going to happen to complex ecosystems from rising temperature. One person argues convincingly that rainforests will disappear from where they are at present, but an equally convincing argument might be made that with increased precipitation in a warmer world, there might well be lusher vegetation overall. The Sahara and central Australia may well teem with forests once again. Warmer oceans, contrary to intuitive expectations, might actually lead to an Ice Age, as they once did, provided the continents remain sufficiently cool—see for example Mammoth—riddle of the Ice Age. So an important question on which it is hard to reach a definitive answer is: what is going to be the future balance of winners and losers?

What, if any, efforts should be made to control emissions of CO2?

In addition to the arguments of moral responsibility, there are complex economic factors to consider. Some countries have argued that they, and the world in general, will suffer economically from radical attempts to control CO2 emissions. Others have claimed the very opposite; economic stimulus.

Dr Jonathan Sarfati, of Creation Ministries International is inclined to take a more skeptical view on the whole. Jonathan wonders whether those voices which promoted a global ice age in the 1970s deserve much credibility when promoting global warming today. And he points out the irony, if not hypocrisy, of those who fly around the globe on jets (which emit huge amounts of greenhouse gases) while lecturing in country after country on why we should limit such emissions. He also notes that in AD 1000, Europe was warm enough for Vikings to settle Greenland and wine grapes to be grown in Yorkshire. So Jonathan is not at all convinced of the doom and gloom scenarios of the Global Warming advocates. On a cost-benefit analysis, even if the present predictions about Global Warming turned out to be true, he feels it could turn out to be an economic positive, for the developing world as well.

In short, various scientists have different emphases of opinion on various aspects of this whole global warming debate.

https://creation.com/en/articles/global-warming-climate-change-what-is-the-creationist-view

Discussion Questions:

What impact would it have on developing nations if the burning of ALL fossil fuels was banned?

What role can the individual play in reducing fuel emissions, rather than placing all blame on governments?

Would it be better use of money to develop technology that makes the burning of coal cleaner, (using filters), rather than eliminating it altogether?