Sci 10 Acid Oceans Questions

Two planet-wide environmental problems associated with burning carbon as a fuel source:

1. Much of the CO2 released into atmosphere is absorbed by oceans. CO2 reacts with water to form carbonic acid (H2CO3), taking up free carbonate ions that creatures would normally use to make their shells. So less creatures like plankton, a major food source for larger animals, would survive, or plankton and other creatures would have thinner weaker shells, making them more vulnerable or less viable.
2. Living creatures require a neutral pH to survive. Excess carbonic acid would lower the pH, making it more acidic and no longer viable.
3. burning fossil fuels adds large amounts of CO2 into the atmosphere, creating a greenhouse effect, trapping emissions and heat, causing global warming, leading to polar ice caps melting.

2. Shell fish make their shells out of calcium carbonate. Excess CO2 (from emissions) dissolved in ocean binds up the carbonate ions, making less available for the sea creatures.

3. How can we halt ocean acidification? Move away from burning fossil fuels by greener, more sustainable methods like wind, solar, hydro. Extreme measures we could add buffers to the oceans to help bind up the CO2.