

Review of chap 16: Climate Change

- How is climate different from weather?
- Describe how climate varies from small scales to planetary scales.
- Is the last century the first time that a major warming has occurred?
- How do we figure out what past climates were like?
- What is an ice age?
- What two land masses have most of the Earth's ice?
- At the time of an ice age, would the sea level be lower or higher than it is now? By how much?
- How much would sea level rise if all the Earth's ice were to melt?

Climate Change

- What has happened to the globally averaged surface temperature over the last 100 years?
- List ways in which climate can change over time scales of
 - ◆ Millions of years
 - ◆ 10s to 100s of thousands of years
- How can dust from volcanoes or an asteroid impact affect climate?
- What would probably happen to climate if there were a major nuclear war?

Climate Change

- By how much does solar output vary with time?
- Why do climatologists look at sunspot counts?
- How much warmer is the global average surface temperature now compared to 100 years ago?
- When CO₂ is added to the atmosphere, what fraction stays in the atmosphere, and where does most of the rest go?
- How do scientists estimate what the future climate will be like?
- Is the temperature expected to change over the next 100 years?

Climate Change

- What is a positive feedback? Give an example.
- What is a negative feedback? Give an example.
- What evidence relates global warming and hurricanes?
- Where is the Sahel? What has happened to its climate since the late 1960s?
- What is the climate situation like in Australia as of December 2006?