**U5A4: How I Understand A Changing Earth**

Fill in a response to each statement by trying to explain how humans need to adapt to climate change.

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| Statement  | How Can Humans Respond to this Environmental Change?  |
| Since the Industrial Revolution in the 1750s, greenhouse gas emissions from industry and transportation have risen, altering the energy balance of the earth’s atmosphere and increasing global temperatures.  |  |
| Since the beginning of human civilization, settlement has been heavily concentrated along coastlines, rivers, and shorelines. Historically, few concerns (except the odd hurricane/storm surge) were associated with this practice, but coastal communities are currently experiencing more frequent intense cyclones and must deal with sea level rise. In combination, sea level rise and intensifying storms make the settlement of coastal areas a less sustainable decision.  |  |
| The city of Calgary is built on the banks of the Bow River, which historically experienced rare flood events. A changing climate is affecting spring flow rates of the river, increasing the risk of regular flooding, and driving up the cost of insurance along the floodplain. |  |
| Many of the world’s largest rivers are fed by melting continental glaciers. A changing climate is shrinking their size and reducing their flow rates to the level where billions of people living along their courses experience reduced access to water. At current rates, these glaciers will disappear along with the only source of water for many people. |  |