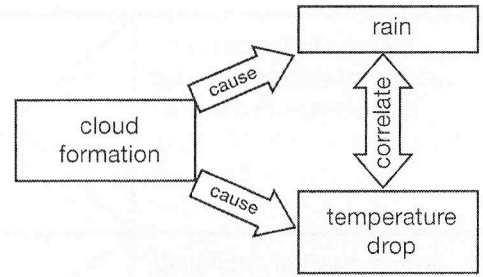


9. Rain and temperature are correlates because they are outcomes of the same cause: cloud formation.



10. Your response could be similar to the following.

I can predict rain and a drop in temperature by observing dark clouds on the horizon that are heading my way. I can make this prediction using my knowledge of what causes rain (clouds). I can predict a drop in temperature to accompany the rain because they are correlates. My level of certainty depends on how big and dark the clouds are and how far away they are. If the clouds are really far away, there is a greater probability they might change direction before they reach me. I require more knowledge of the present state of the system—such as wind velocity and variability—to be more certain, and I need to know whether it is already raining.

11. The elements are

- knowledge of the system’s causal relationships and correlating variable, and, for example, what causes rain
- knowledge of the present state of the system, for example, the position and velocity of nearby clouds

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12. This chart summarizes possible causes of glaciation and their effects.

Possible Causes of Glaciation	Effects on Earth’s Atmosphere	Effects on Earth’s Lithosphere	Effects on Earth’s Hydrosphere	Effects on Solar Radiation Received on Earth’s Surface
Plate Tectonics	X	Plate tectonics is all about the crustal plates moving, so this is primarily an effect on the lithosphere.	Over geological time, changes in the positions of the continental crust will have significant impacts on the boundaries of oceans and ocean currents.	Geologists suspect that when the plates of continental crust move to the poles, continental ice sheets can form that increase the amount of solar radiation reflected into space.
Global Conveyor	The high heat capacity of water means that the global conveyor will move enough heat over time so that the atmospheric temperature will be dramatically affected.	As was the case for the atmosphere, the global conveyor has a huge impact on the climate of Earth’s land masses.	The global conveyor is clearly about ocean currents, so this is primarily a hydrospheric effect.	X