Climate Scenario Cards

Use these variables to modify your a forest systems diagram by adding arrows to depict direct effects. Label the arrows with an S for SAME or an O for OPPOSITE to describe how one variable changes another. Only some variables and connections are illustrated in the Forest Systems Diagram to emphasize relationships that play particularly important roles in influencing pine tree growth.

	Climate Scenarios	Variables for Your Forest Systems Diagram
1	Increased carbon dioxide in the atmosphere enables Mr. Moore's trees to grow faster until other factors limit growth. What should Mr. Moore do to adjust to this change?	CARBON DIOXIDE
2	A decrease in summer rainfall has reduced the amount of groundwater available for the trees in Mr. Moore's forest. How should he respond?	PRECIPITATION GROUNDWATER
3	Less rain has fallen recently, but the understory of Mr. Moore's forest is thick and tall. What should Mr. Moore do?	PRECIPITATION
4	Increased temperatures have resulted in a longer growing season with high precipitation. How should Mr. Moore respond to these changes?	PRECIPITATION TEMPERATURE LENGTH OF GROWING SEASON
5	There have been more severe storms. These storms have damaged trees in Mr. Moore's forest, and the weakened trees could attract pests that carry disease.	SEVERE STORMS
6	Mr. Moore has been observing warmer winter temperatures this year, which have caused an increase in tree fungi that cause disease. How are these changes likely to impact the forest? What should Mr. Moore do?	TEMPERATURE FUNGI
7	Rapid changes to climate patterns have caused increased uncertainty regarding the amount of precipitation each year. What can Mr. Moore do to adjust to this increased uncertainty?	PRECIPITATION GROUNDWATER