

SCIENCE

A.2.1.5, B.3.2.3

This is a Short Open-Ended (SOE) question. It is worth two points.
Use the table below to answer question 14.

Plant Flowering Experiment

Species	Plant	Number of Hours		Receives 15 Minutes of Light during Dark Period?	Produces Flowers?
		In Light	In Dark		
X	1	14	10	no	yes
	2	10	14	yes	yes
	3	10	14	no	no
Y	4	14	10	no	no
	5	14	10	yes	no
	6	10	14	no	yes

14. A gardener wanted two plant species in his house to flower at the same time. He read that light is one factor that can affect whether plants produce flowers. The gardener designed an experiment to determine the effect of light on his two plant species (X and Y). He placed three plants of each species in separate rooms. Each plant was exposed to periods of light and dark. Some plants received an additional 15 minutes of light at the same time during the dark period. The results of the gardener's experiment are shown in the table.

A. Identify the plant **species** that needs long nights to flower and the plant **species** that needs short nights to flower. Explain your answers.
