

Name: _____ Date: _____ Class: _____

Just Breathe Green Worksheet

Time of day _____ Temperature _____ Humidity _____ Dew point _____

Weather conditions _____

What do you predict that you will see accumulate on the bottle/bag? _____

Predict the color of water as it evaporates from the plant. _____

Plant ID # _____		
Common name:	<i>Scientific name:</i>	
Time (minutes)	Weight (g)	Observations (What do you see?)

Determine the amount of transpiration:

Trial 1 weight		Trial 2 weight		Trial 3 weight	
minus		minus		minus	
Initial weight		Initial weight		Initial weight	
equals		equals		equals	
Trial 1 transpiration mass (g)		Trial 2 transpiration mass (g)		Trial 3 transpiration mass (g)	
Trial 1 transpiration rate		Trial 2 transpiration rate		Trial 3 transpiration rate	
Average transpiration rate (1 g=1 ml)					

Draw and describe this plant species:

Plant species		Sketch with details:
Common name:		
<i>Scientific name:</i>		
Light requirements		
Height		
Soil conditions		
Transpiration rate (ml/min)		

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Draw and describe plant species selected by two other classmates and record the transpiration rate below:

Plant species		Sketch with details:
Common name: _____		
Scientific name: _____		
Light requirements	_____	
Height	_____	
Soil conditions	_____	
Transpiration rate (ml/min)	_____	

Plant species		Sketch with details:
Common name: _____		
Scientific name: _____		
Light requirements	_____	
Height	_____	
Soil conditions	_____	
Transpiration rate (m/min)	_____	

Plant species common name: _____

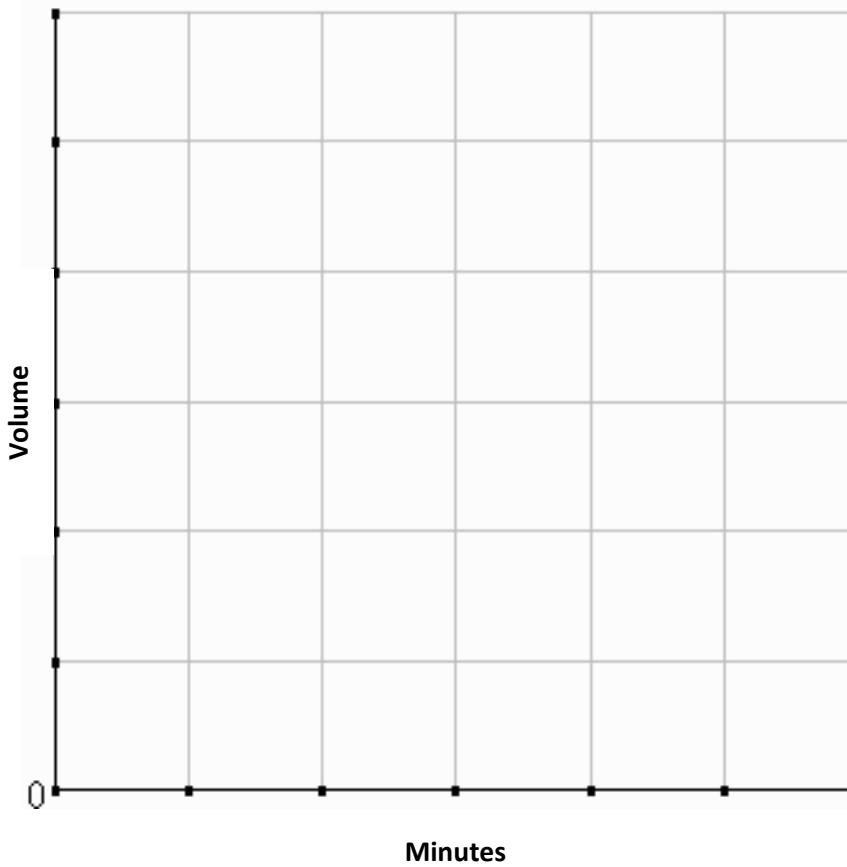
Trial 1 transpiration mass (g)	_____	Trial 2 transpiration mass (g)	_____	Trial 3 transpiration mass (g)	_____
Trial 1 transpiration rate	_____	Trial 2 transpiration rate	_____	Trial 3 transpiration rate	_____
Average transpiration rate (1 g=1 ml):					_____

Plant species common name: _____

Trial 1 transpiration mass (g)	_____	Trial 2 transpiration mass (g)	_____	Trial 3 transpiration mass (g)	_____
Trial 1 transpiration rate	_____	Trial 2 transpiration rate	_____	Trial 3 transpiration rate	_____
Average transpiration rate (1 g=1 ml)''					_____

Graphing

In one graph, plot the transpiration rate data as volume over time for each plant species. Use different colors and/or line styles for each plant species and create a key. The slope of the line is the transpiration rate.



Plant Species	Color or symbol

Analysis Questions

Did one plant species have a higher rate of transpiration than the other? If so, what were the physical differences in the plants? Why might this make a difference? Refer to your drawings and observations of the plants and the data you collected.

What was the color of the condensed water? Why?