Steam Mini –Chromatography Challenge Name _____

Chromatography Basics

1. Chromatography is the _____ separation of a _____ into its individual _____.

2. List three substances that can be analyzed with chromatography. _____

3. A _____ is a mixture created when one substance is dissolved in another. It consists of a _____ dissolved in a _____.

4. Identify the solute and solvent for each substance in the chart. →

Solution	Solute(s)	Solvent
Kool-Aid		
Soda pop		
Ocean water		

5. What is known as the universal solvent? _____

6. Which would have more solute: a glass of very sweet Kool-Aid or barely sweet Kool-Aid? Explain. _____

_____

7. What does it mean if a substance is "soluble" in water? _____

Chromatography Lab

1. Follow your teacher's directions to create chromatograms for 4 different markers.

Marker #				
Colors Observed				

2. Analysis – Answer these questions based on the results.

a) Do all the samples look the same? Why or why not? _____

_____

b) Identify each of these: Solvent = _____ Solute = _____

Video: Fall Colors - Watch the video to answer these questions.

1. What type of trees have leaves that change colors? _____
2. Why are the leaves on most trees green? _____
3. How are these green structures used in trees? _____
4. What color of pigments are found in leaves? _____
5. Why can't we see these pigments except in the fall? _____

_____

Radial Chromatography

1. What are the solute and solvent for this experiment? Solute = _____ Solvent = _____

2. Why can't we use water for this activity? _____

3. Follow your teacher's directions to create radial chromatograms on a t-shirt or other white item (cotton fabric) you brought in.