

Soils of Fire STEM Kit

Team members: _____

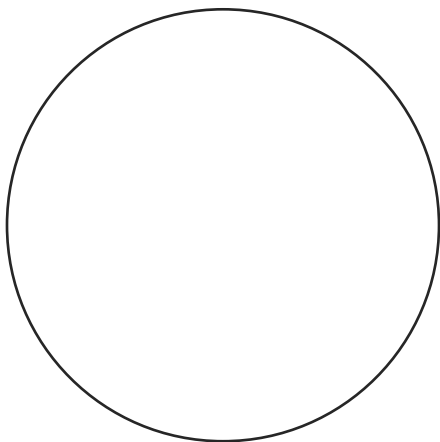
Date: _____

Fill in the prompts as you complete the activities in the Soils of Fire booklet. The page numbers reference the page in the booklet the original prompt can be found.

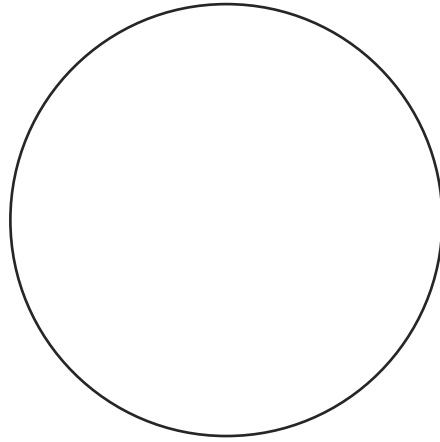
Page 4 - Write some ways carbon moves between the spheres.

Page 6 - Copy our research question:

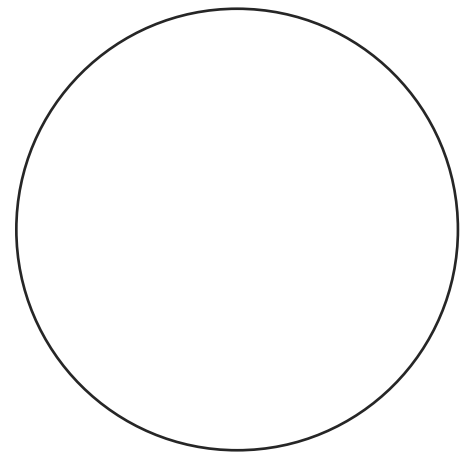
Page 9 - In the circles, draw detailed pictures of each sample as seen through the microscope. Use colored pencils.



Sample A



Sample B



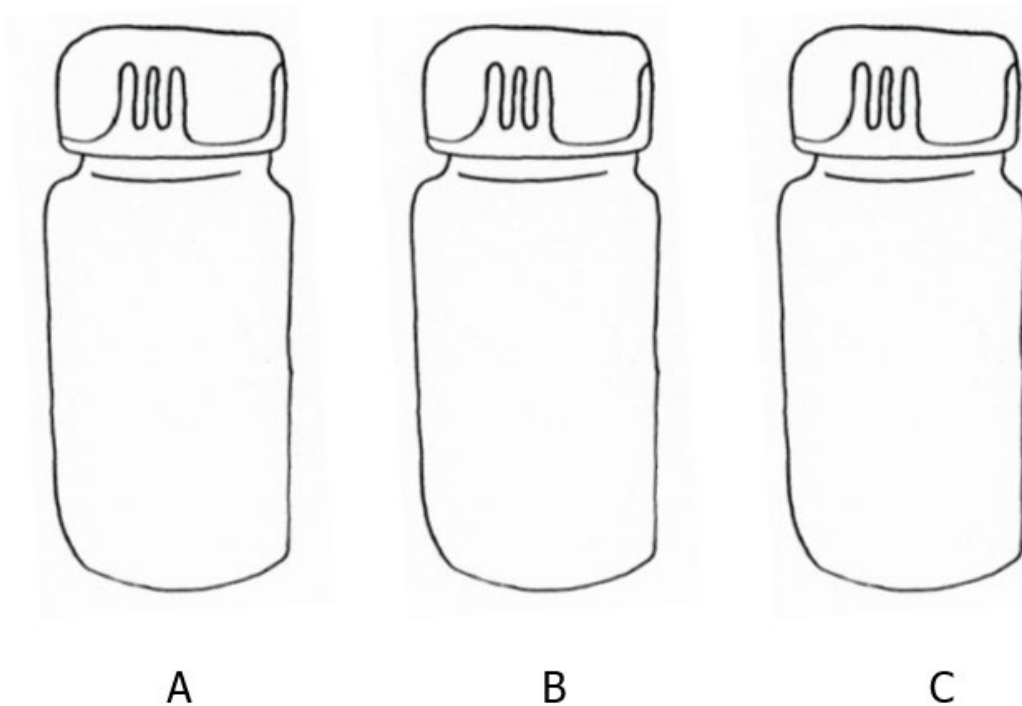
Sample C

Page 10 – From your Optical Analysis, note if you can see lots, some, or none of each of the components.

	A	B	C
Rocks Rocas			
Organics Orgánicos			
Black carbon Carbono negro			
Sand Arena			
Silt Limo			
Clay Arcilla			

Which has the most unburned organic material?

Page 14 – From your Separation Analysis, draw and label what you see using the colored pencils.



Which vial has the most black carbon?

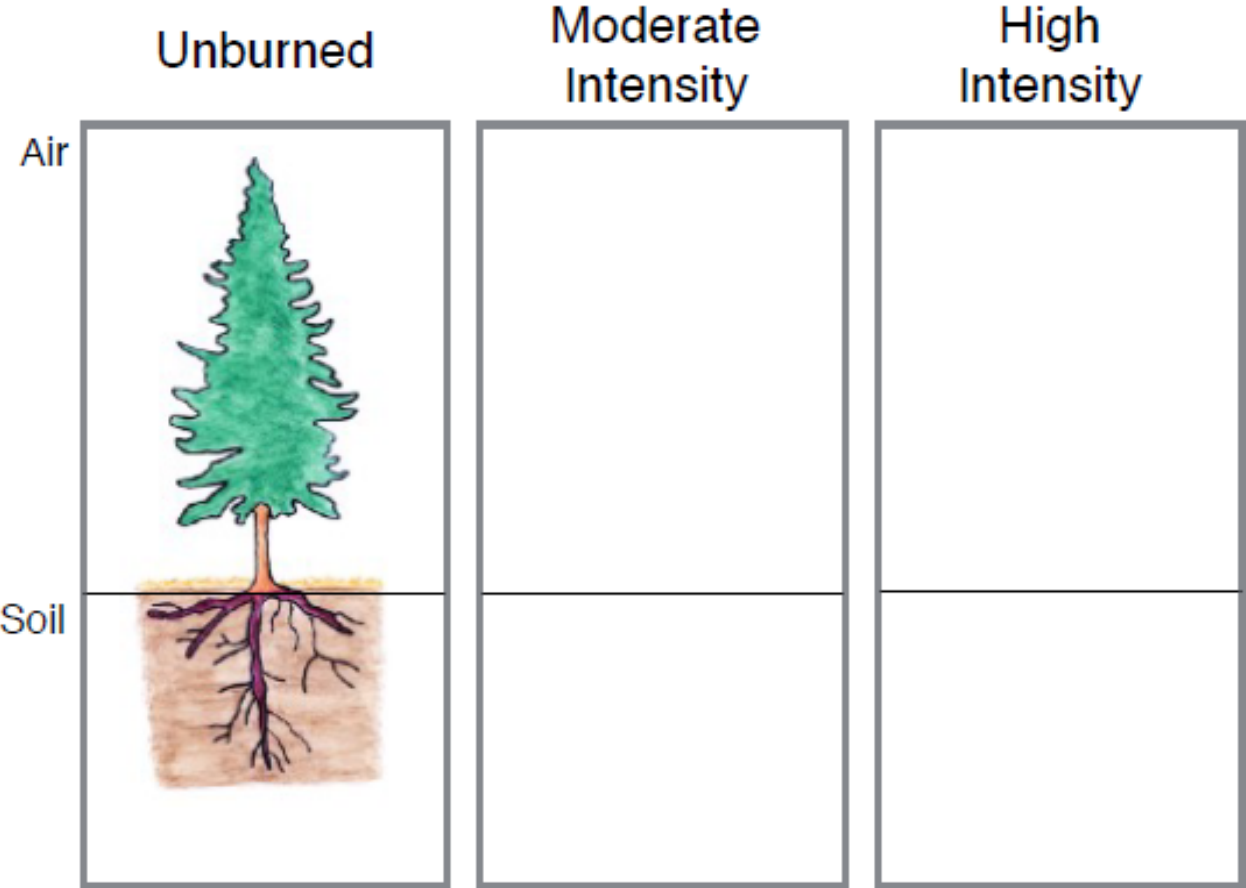
Page 16 – From your Chemical Analysis, record the pH of each sample.

	A	B	C
pH			

Page 17 – Use your optical, separation, and chemical data from the three different samples to help you interpret which soil was from the high intensity burn, the moderate intensity burn, and the unburned areas. Explain using scientific terms.

Page 18 – When a forest burns, where would we want the carbon from the trees to go?

Page 19 – Use the template to complete steps in page 19.



Page 20 – Which fire type, moderate intensity or high intensity, keeps the most mass of carbon out of the atmosphere by adding it to the soil?

Page 24 – What topic in any of your classes makes you curious? Why does it make you curious?