

PARENT LETTER FOR CSI

Dear Parents,

We are excited about our CSI curricula! This curriculum uses two crime scenes that the students must solve using logic and science.

THE FIRST CRIME SCENE IS ***BREAK IN***

Here a woman has had a valuable painting stolen from her home. To solve the crime the students must first learn to think like a detective and analyze the crime scene. They will then begin the role playing exercise where they are interrogated as witnesses or suspects.

They will learn to take finger prints and analyze their own. Will they be eliminated from the suspect list? **Discovery Question:** What type of finger print did they have? They should be able to tell you whether they had whorls, loops or other combinations.

Next we will analyze lip stick left at the crime. They will do a chromatography analysis to see who it belonged to. **Discovery Question:** What solvent was used to perform this experiment?

We also investigate why the alarm did not go off. We will create series and parallel circuits and create our own alarms as we learn about electricity. **Discovery Question:** which created a louder alarm or brighter light? Series or parallel connections?

We also find an unknown powder so we do a powder analysis and a flame test. **Discovery Question:** What color does boric acid turn in this experiment?

There was an unexplained foot print at the crime. Make sure you take a look at the shoe prints we made!

Discovery Question: Whose hand writing did we discover with our handwriting analysis?

Who was the culprit?

OUR NEXT CRIME SCENE IS ***RED ROVER***

This involves a prize winning dog being stolen! In Red Rover, we have to learn about lab safety.

We will look at tool impressions to see what was used to break in to steal Clover.

In order to understand all of the microbiology we will be doing, we will journey into an onion to look at cells under the microscope. **Discovery Question:** Ask your child what Osmosis is and how the salt affected the onion cell.

Your student will prepare and view slides of cheek cells, cardiac muscle, and bacteria using compound and digital microscopes. This will provide each student with hands on training of proper laboratory techniques for future upper level laboratory classes while exploring their cells on the microscopic level.

So just what is that in the bag? It is a 3-d cell model. Your student will explore cell parts, along with their functions by building a 3-D model of the cell using GAC. **Discovery Question:** See if your child can remember the parts of the cell.

We will also collect cheek swabs from all of our suspects and look at the results under the microscope.

We found hair at the scene so we will do a hair analysis and learn about how DNA can be used to solve a crime. The students will extract DNA from a pea. They will explore the DNA molecules, its double helix structure, and the genetic info that makes each of us unique.

In Bitten we will find out how to take teeth impressions. Clover was very unhappy about being stolen and bit our culprit. Was your child the culprit here? Make sure you take a look at our discovery table where the teeth impressions are.

Of course there was blood from the bite (no real human blood) and so we need to be able to analyze that as well. We will use blood typing to find out who the guilty party is. **Discovery Question:** Ask your child what makes up blood and what the three types of cells do.

SPIES AND SLEUTHS EXTRAS

If there is time at the end of camp we will change hats and become Spies and Sleuths and investigate other types of crimes.

We will look at counterfeiting and code making. We will also find out how quickly a witness's memory can be lost and why we need to question our witnesses quickly.

I hope your child has as much fun in class as we have in teaching them!

We look forward to seeing you soon!