Name:

Date:

School:

Facilitator:

6.01 Blood Spatter Lab

# Materials:

* Simulated blood can be ordered through Ward’s Scientific or you can make your own (see recipe below)
* Simulated blood ingredients:
	+ cornstarch
	+ corn syrup
	+ red and green food color
	+ white glue
* Eyedropper or pipette
* Two large pieces of cardboard or paper
* Meter stick/measuring tape
* ruler

## Simulated blood recipe:

1. Add 4 tablespoons of cornstarch to 2/3 cup of water
2. Mix well and add 2/3 cup of corn syrup.
3. Mix well again and put 3 tablespoons of mixture in another bowl and add 3-5 drops of red food coloring and then a few drops of green food coloring. Add red and green until you get a good blood-like color.
4. Add 1-2 teaspoons of white glue
5. Look for a heavy, watery look as you stir the mixture.
6. Add additional corn syrup or white glue as needed.

# Procedure:

1. Using an eyedropper (pipette), drop the simulated blood at the following heights onto a large piece or paper. Cardboard or posterboard will also do.
	1. 15 cm
	2. 30 cm
	3. 45 cm
	4. 60 cm
	5. 75 cm
	6. 100 cm
	7. 150 cm
2. Write the height beside each droplet on the paper. Allow the droplets to dry.
3. After the droplets have dried, measure the diameter of each droplet and create a table showing the height dropped and the diameter of each droplet.
4. Take a picture of you performing the lab activity.

diameter

# Data

|  |  |  |
| --- | --- | --- |
| **Height** | **Diameter** | **Other Observations** |
| 15 cm |       |       |
| 30 cm |       |       |
| 45 cm |       |       |
| 60 cm |       |       |
| 75 cm |       |       |
| 100 cm |       |       |
| 150 cm |       |       |

# Questions

1. How would you summarize the relationship between the blood droplet diameter and height from which it drops in your words?

2. Did your data support the information in the lesson? Explain why or why not.

3. A police officer is called to a school fight where one student is accused of knocking another student out in a fight. According to the 911 call, the victim was punched while unconscious on the ground. Student witnesses on the scene say that this is not correct. Instead, the victim was punched in the nose and suffered a nosebleed, but he was not knocked out or nor knocked to the ground. The blood spatter includes only very large blood droplets. Based on this evidence, which scenario is correct? Explain your answer.

4. Explain how you could use the materials in this experiment to test how movement of a victim affects the shape and size of blood spatter. Be sure to include materials needed and the procedure in step form in your explanation.

5. Add image of you doing the lab below: