

### 107. Experiential lesson/ Report

Name:

CLASS: 5/

Objective:

1. Identify acids and bases using the pH scale
2. distinguish between strong and weak acids and bases
3. make and test predictions, and draw conclusions based on data



#### Step:1 Write your predictions

| Pre-lab activity Prediction | substance                                                                                        | After lab: Result | Evidence |
|-----------------------------|--------------------------------------------------------------------------------------------------|-------------------|----------|
|                             | Spit           | basic             | pH=7.40  |
|                             | Milk          |                   |          |
|                             | Coffee        |                   |          |
|                             | Blood         |                   |          |
|                             | Chicken soup  |                   |          |
|                             | Hand soap     |                   |          |

## Step:2 Perform the experiment

Go to ALEF 107



## Step:3 Fill the following table with your observations



| Solution/mixture | pH value | Acid, base or neutral? |
|------------------|----------|------------------------|
| Drain cleaner    |          |                        |
| Hand soap        |          |                        |
| Blood            |          |                        |
| Spit             |          |                        |
| Water            |          |                        |
| Milk             |          |                        |
| Chicken soup     |          |                        |
| Coffee           |          |                        |
| Orange juice     |          |                        |
| Soda pop         |          |                        |
| Vomit            |          |                        |
| Battery acid     |          |                        |



### Step:5 CONCLUSION

Classify the following substances base on data you got from the experiment:

**Drain cleaner- milk – blood -coffee- chicken soap – battery acid – soda pop**

| Strong acid | Weak acid |
|-------------|-----------|
|             |           |
| Strong base | Weak base |
|             |           |

### Step:4 Fill the following table with your observations

At the end of the activity check to see if your predictions were correct and complete the last column with evidence from your data.



#### Critical thinking:

How would the pH of **battery acid** and **drain cleaner** be affected if you add **water** to the solutions? Find the answer by testing it in the simulation. Use evidence and scientific reasoning to explain the results.