**LESSON DEVELOPMENT ONE**

**PROPERTIES OF ACIDS**

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| **STAGE/TIME** | **TEACHER’S ACTIVITIES** | **LEARNER'S ACTIVITIES – MIND/HANDS ON** | **LEARNING POINTS** |
| **Step 1**  **Introduction**  **(5 minutes)** | Asks pupils the following questions –  1. Have you ever heard the word acid?  2. How did you hear about it? | Pupil’s respond –  1. Yes/no  2. They share theirs opinions on how they hear about acid | Linking the Previous knowledge to the new lesson |
| **Step 2**  **Development**  **(5 minutes)**  **Grouping** | 1. Groups the pupils into four groups – A, B, C, and D.  2. Guide the pupils to choose a leader and secretary for your group.  3. Gives each group learning materials. – ripe and unripe fruits – orange, pawpaw, mango, pineapple, etc. Blue litmus paper, writing material. | 1. Belong to a group.  2. Choose their leader and secretary.  3. Received learning materials for their group. | Pupil’s group, leader and secretary confirmed. |
| **Step 3**  **Development**  **(10 minutes)** | Guides the groups through the following activities –  1. Cut a piece of each of the ripe and unripe fruits, taste each in turn.  2. Record your observations as sweet or sour.  3. Make a general statement about the tastes of the unripe and the ripe fruits.  ***Note/Warming*** – lets the pupils know that acids taste sour. Do not to taste strong acids. | Pupil’s Activities –   |  |  |  | | --- | --- | --- | | Fruit | Ripe | Unripe | | Orange | Sweet | Sour | | Pawpaw | Sweet | Sour | | Mango | Sweet | Sour | | Pineapple | Sweet | Sour |   General statement – all the ripe fruits had sweet taste while unripe fruits had sour taste. | Tasting acids in common fruits |
| **Step 4**  **Development**  **(10 minutes)** | Guides the groups through the following activities –  1. Cut a piece of each of the other ripe and unripe fruits. Press the blue litmus paper on the cut surface.  2. Record your observations as sweet or sour.  3. Make a general statement about the tastes of the unripe and the ripe fruits.  Lets the pupils that acids taste sour and turn blue litmus paper to red. | Pupil’s Activities –   |  |  |  | | --- | --- | --- | | Fruit | Blue Litmus paper | | | Ripe | Unripe | | Orange | Blue | Red | | Pawpaw | Blue | Red | | Mango | Blue | Red | | Pineapple | Blue | Red |   General statement – all the unripe fruits turn blue litmus paper red.  The understand that acids taste sour and turn blue litmus paper to red. | Testing acids in common fruits. |
| **Step 5**  **Conclusion**  **(10 minutes)** | To conclude the lesson, the teacher revises the entire lesson and ask the key questions.  1. What is acid?  2. What are the properties of acids? | Pupil’s answer –  1. Acids are chemical substances in almost liquid, commonly in unripe fruit.  2. Properties of acids   1. Acids taste sour. 2. Acids turns litmus paper to red. | Evaluation and Conclusion |