**Activity 1.2.8 Reacting with acids, alkalis and solutions of salts**

Materials:

Test tubes, clap stand , different kinds of plastic, cotton, metal and wood



Procedure:

Before the experiment, formulate your hypotheses about action of acids, alkalis and solutions of salts on plastic materials and natural substances.

Hypotheses:

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Carry out an experiment in which you will study the resistance of the above-mentioned substances to the action of acids, alkalis and solutions of salts.

Fill the test tubes with different acids, alkalis and solutions of salts. Put a particular kind of plastic, cotton, metal and wood into each test tube. Write your findings into the table:

Findings:

1. Complete the table:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Plastic** | **Time of action** | **Acids** | | **Alkalis** | | **Solutions of salts** | |
|  |  |  |  |  |  |
| PVC | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| Polyethylene | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| Polypropylene | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| Polystyrene | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| **Natural substances** | **Time of action** | **Acids** | | **Alkalis** | | **Solutions of salts** | |
|  |  |  |  |  |  |
| Cotton | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| Metal | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |
| Wood | 5 minutes |  |  |  |  |  |  |
| Two hours |  |  |  |  |  |  |
| week |  |  |  |  |  |  |

2. Compare the resistance of organic substances (cotton, wood) with that of plastic materials (resistance to the action of acids, alkalis and solutions of salts).

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3. A lot of chemicals are kept in plastic receptacles.

How is it possible? ......................................................................................................................................................