

**APKF Public School**  
**Village Kallah**  
**Yearly Instruction Plan**  
**Class 9<sup>th</sup>**  
**Subject- Science**

**Term-1**

**Periodic-1**

Matter in our surrounding

Is matter around us pure?

Activity: To Show The particles of matter are very tiny

Matter is made up particles

Prepare true solution, a suspension and a colloidal solution.

Show the Tyndall Effect

Activity:- Trick to learn elements and valency.

**Periodic -2**

Atom and molecules

Fundamental unit of life-cell

**MID Term-1**

**P-1, P-2**

Structure of atom

Activity:- Show different tissues using slides

Motion

**Term-2**

### **Periodic-3**

Force and Law of motion

Tissue

### **Periodic-4**

Gravitation

Work energy and power

Activity:- To show the concept of gravity using clips and magnet.

### **Post MID Term**

P3, P4

Health and Diseases

Why do we fall sick

**Activity:- Show Different Health diseases using slides.**

### **LIST OF PRACTICAL'S**

#### **1) Preparation of:**

- a) A true solution of common salt, sugar and alum
- b) A suspension of soil, chalk powder and fine sand in water
- c) A colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of transparency filtration criterion stability

#### **2) Preparation of:**

- a) A mixture
- b) A compound

using iron filings and sulphur powder and distinguishing between these on the basis of:

- (i) Appearance, i.e., homogeneity and heterogeneity
- (ii) Behaviour towards a magnet
- (iii) Behaviour towards carbon disulphide as a solvent
- (iv) Effect of heat

**Perform the following reactions and classify them as physical or chemical changes:**

- a) Iron with copper sulphate solution in water

- b) Burning of magnesium ribbon in air
- c) Zinc with dilute sulphuric acid
- d) Heating of copper sulphate crystals
- e) Sodium sulphate with barium chloride in the form of their solutions in water

### **5) Preparation of stained temporary mounts of**

- (a) Onion peel
- (b) Human cheek cells

to record observations and draw their labelled diagrams

**6)** Identification of Parenchyma, collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibres and nerve cells in animals, from prepared slides. Draw their labelled diagrams.

7) Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.

### **8) Establishing the relation between the loss in weight of a solid when fully immersed in**

- a) Tap water
- b) Strongly salty water with the weight of water displaced by it by taking at least two different solids

**9)** Verification of the law of conservation of mass in a chemical reaction.

## **Art Integrated Activities**

1. Use of Various media – PPT, Video Making, Charts Etc.
  - Show PPT on Identification of Parenchyma, collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibres and nerve cells in animals.
  - Show videos to prepare true solution, Colloidal and Suspension.
  - Make charts on plant tissues and animal tissues.
2. Tricks to learn elements and their valency
3. Quiz
4. Use gravitation using clips and magnets.
5. Celebrating World Environment day on June 5<sup>th</sup> and make manure or vermicompost and tree plantation to save environment.

**APKF Public School**  
**Village Kallah**  
**Yearly Instruction Plan**  
**Subject- Information Technology (IT-402)**  
**Class 9<sup>th</sup>**

**Term-1**

**Periodic-1**

COMMUNICATION CYCLE

METHODS OF COMMUNICATION

Component of computer system

**Periodic-2**

Peripheral Devices

Basic computer Operations

Operating System

Introduction to internet, Email and Social Media

**MID Term**

P1, P2

Basic writing Skills

Introduction to ICT

Digital Documentation

**Experiment:-**

**Experiment:-**

- List style categories. Select the style from the Styles and Formatting window.
- Use Fill Format to apply a style to many different areas quickly.
- Create and update new style from a selection.
- Load a style from a template or another document.

- Create a new style using drag-and-drop.
- Insert an image to document from various sources.
- Modify, resize, crop and delete an image.
- Create drawing objects
- Set or change the properties of a drawing object
- Resize and group drawing objects
- Position the image in the text
- Create table of contents. Define a hierarchy of headings.
- Customize a table of contents.
- Apply character styles. Maintain a table of contents.
- Prepare different documents like resume writing in Word
- Mail Merge

**prepare different documents like resume writing in Word**

### Term-2

#### Periodic-3

Electronic spread sheet

Entrepreneurial Skills

#### Periodic-4

Application of IT

Electronic spread sheet

Experiment:- How to prepare result using excel.

Use of different formulas

Insert Charts

#### Post MID Term

**P-3, P-4**

Self –Management Skills

Entrepreneurial Skills

Green Skills

## Data entry and keyboard Skills

## Digital Presentation

### **Experiment:-**

- Use consolidating data Create subtotals
- Use “what if” scenarios Use “what if” tools
- Use goal seek and solver
- Setup multiple sheets by inserting new sheets.
- Create reference to other sheets by using keyboard and mouse.
- Create reference to other document by using keyboard and mouse.
- Create, Edit and Remove hyperlinks to the sheet.
- Link to external data.
- Link to registered data source.
- Set up a spreadsheet for sharing.
- Open and save a shared spreadsheet.
- Record changes.
- Add, Edit and Format the comments.
- Review changes – view, accept or reject changes.
- Merge and compare sheets.
- Make interactive presentation using PowerPoint tools.

### **Art Integrated Activities**

1. Use of Various media – PPT, Video Making, Charts Etc.
  - Show various functions and types of operating system using PPT.
  - Live demonstration to manage files and folders.
  - Show videos and live demonstration of caring of computer.
  - Show Videos and PPT for various types Network, network devices, media etc.
  - Hands on training session to learn the use of Apache office, MS- Office( Word, excel, Power Point, Access).
  - Hands on training to create an online and Off-line blogs.



**APKF Public School**  
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**Class 10<sup>th</sup>**  
**Subject- Science**

## **Term-1**

### **Periodic-1**

1. Ch-1 Chemical Reactions,
2. Ch-2 Acid, Base and Salt

### **Periodic-2**

#### **Ch-6 Life Process**

Project:- 1. Make a heart diagram using thermo coal  
Make Double circulatory System of Blood.

#### **Ch-10 Light**

### **MID-TERM**

#### **P-1, P-2**

Ch-9 Heredity

Ch-15 Our Environment

Ch-11 Colorful World

Activity:- Using Prism show different colors made from sunlight.

### **List of Experiments:-**

Experiment 1: Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with:

- Litmus solution (Blue/Red)
- Zinc metal
- Solid sodium carbonate



Experiment 2. Performing and observing the following reactions and classify them into:

- Combination reaction
- Decomposition reaction
- Displacement reaction
  - Double displacement reaction
  - The action of water on quicklime
  - The action of heat on ferrous sulphate crystals
  - Iron nails kept in copper sulphate solution
  - The reaction between sodium sulphate and barium chloride solutions

Experiment 3. Experimentally show that carbon dioxide is given out during respiration.

Experiment 4. Determination of the focal length of:

- Concave mirror
- Convex lens
- by obtaining the image of a distant object

Experiment 5. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.

Experiment 6. Tracing the path of the rays of light through a glass prism.

## **Term-2**

### **Periodic-3**

Ch-3 Metal and Non Metal

Ch-12 Electricity

Activity:- using different resistance to show the impact on light bulb.

### **Periodic-4**

Ch-13 Magnetic Effect

Ch-8 How do organism Reproduce

Activity:- Studying Binary fission in Amoeba and Budding in yeast with the

help of Slides.

## **Post MID-Term**

P-3, P-4

Ch-4 Carbon and its compound

Ch-5 Periodic Classification

Ch- 14 Management of natural Resources

Activity:- Trick to learn Periodic Table

## **List of Experiments:-**

1. Experiment 1:- Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.
2. Experiment 2:-. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:
  - a.  $\text{ZnSO}_4(\text{aq})$
  - b.  $\text{FeSO}_4(\text{aq})$
  - c.  $\text{CuSO}_4(\text{aq})$
  - d.  $\text{Al}_2(\text{SO}_4)_3(\text{aq})$Arranging Zn, Fe, Cu and Al (metals) in decreasing order of reactivity based on the above result.
3. Experiment 3. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance and also plotting a graph between V and I.

## **Art Integrated Activities**

1. Use of Various media – PPT, Video Making, Charts Etc.
  - To show the various reactions
  - To show diagram of heart, Respiration System, Double circulatory system.
  - Videos to show VI characteristics.
  - Charts to show different body parts like respiratory system, Nutrition in Human body system.

- PPT to show Asexual and Sexual reproduction.
2. Design effect of magnet on a circuit.
  3. Design various activities using resistance in series and parallel.
  4. Quiz
  5. Tricks to learn elements and their valency.
  6. Celebrating World Environment day on June 5<sup>th</sup> and make manure or vermicompost and tree plantation to save environment.

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**TERM-1**

**PERIODIC-1**

OPERATING SYSTEM

MANAGING FILES AND FOLDERS

CARE OF COMPUTER

**PERIODIC-2**

COMMUNICATION CYCLE

METHODS OF COMMUNICATION

Network Fundamentals

EFFECTIVE COMMUNICATION

BARRIERS OF COMMUNICATION

**MIDTERM-1**

**P-1,P-2**

DIGITAL DOCUMENTATION

BASIC WRITING SKILLS

STRESS MANAGEMENT

Instant messaging

**Experiment:-**

- List style categories. Select the style from the Styles and Formatting window.
- Use Fill Format to apply a style to many different areas quickly.

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- Apply character styles. Maintain a table of contents.
- Prepare different documents like resume writing in Word
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## **TERM-2**

### **PERIODIC-3**

Creating blogs

Online transactions

Electronic spread sheet

**Experiment:-** How to prepare result using excel.

Use of different formulas

Insert Charts

### **PERIODIC-4**

Internet security

Entrepreneurial skills

Sustainable Development

### **Post MID-TERM**

P-3,P-4

Ability to do work independently

Database Management System

Health and safety at work

Google hangout

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- Review changes – view, accept or reject changes.
- Merge and compare sheets.
- Start the RDBMS and observe the parts of main window,
- Identify the data base objects Create the sample table in any category using wizard, Practice to create different tables from the available list and choosing fields from the available fields.
- Assign data types of field, Set primary key,
- Edit the table in design view, Enter the data in the fields.
- Create and edit table using DDL Commands

### **Project Making**

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- Hands on training to create an online and Off-line blogs.
- Chart making of various topology