#### ARMY PUBLIC SCHOOL, R K PURAM

### **HOLISTIC PERSONALITY DEVELOPMENT (HPD) INTEGRATED INTO SCHOOL CURRICULUM-2014**

SUBJECT: Science Class: VII

**LESSON TITLE**: Nutrition in Plants

LESSON TITLE : <u>Nutrition in Plants</u>		
ACTIVITIES	VALUES/TRAITS	
Lab Based Activities		
Activity(1): To show that only green		
plants can photosynthesize	Analytical skills	
Activity(2): To demonstrate that CO2		
is needed for photosynthesis	Experimental skill	
Oyugen	Observational skill	
Oxygen /		
	Technical skill,	
	Croative thinking	
Light energy Carbon dioxide	Creative thinking	
→ Sugar		
Minerals		
Water		
WiseGEEK		
Home Activity		
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a tourist, (c) a to give a rung.		
Activity(4): Make a ppt on		
insectivorous plants		
erwww.macrocrimers.wordpress.com		
	ACTIVITIES  Lab Based Activities Activity(1): To show that only green plants can photosynthesize Activity(2): To demonstrate that CO2 is needed for photosynthesis  Oxygen  Oxygen  Water  Home Activity Activity(3): To grow fungi  Activity(4): Make a ppt on insectivorous plants	

## **LESSON TITLE** : <u>Nutrition in Animals</u>

TOPIC	ACTIVITIES	VALUES/TRAITS
(1) Nutrition in unicellular	Lab Based Activities	
organisms- Amoeba	Activity(1): To observe amoeba	Analytical skills
	present in dirty water	Observational skills
(2) Nutrition in		
multicellular organisms-	Diagram Based Activity	Drawing skill, creativity skill
Human beings	Activity(2): Draw a chart of	& knowledge skill
	alimentary canal in humans	
	Pharynx Esophagus  Liver Stomach Pancreas  Gallbladder Large intestine intestine	
	Activity(3): Draw a chart of Digestive	
	system of Ruminant	

**LESSON TITLE** : Fibre to Fabric

TOPIC	ACTIVITIES	VALUES/TRAITS
(1) Wool & Wool Giving	Research Based Activity	Analytical skills
Animals		
	<b>Activity(1)</b> : Collect different types of	Knowledge skill
	fabrics and paste in your note-	
(2) Process of Wool	book/chart	
Production		Team Work
	Group Activity	&
	Activity(2): A burn test for different	Interpersonal relationship
	types of fabrics (under teacher	
(3) Silk & Life Cycle of Silk	supervision)	
Moth		
(4) Dunnan of Cills	It is the second	
(4) Process of Silk		
Production-Sericulture	Market Committee of the	

## LESSON TITLE : Chemicals And Chemical Changes

TOPIC	ACTIVITIES	VALUES/TRAITS
(1) Chemical substances-	Activity(1): Group discussion	Effective Communication
Elements, Compounds &	"Compare Elements ,Compound &	
Mixture	Mixture"	
		Analytical skills
(2) Chemical Substances	Lab Activities	-
	Activity(1): Rusting of iron	Observational skill
(3) Chemical Formulae	THE RESERVE OF THE PERSON OF T	
(4) Chemical Equations		Innovative thinking
4,111		Experimental skill
(5) Chemical Changes—		
(5) 5.1.5		
(a) Rusting		
(b) Vinegar +Baking soda	New York Control of the Control of t	
(c) CuSo <sub>4</sub> + Fe		Problem solving in daily life
(c) cuso4 . Te	Activity(2): Reaction between	Troblem solving in duny inc
	vinegar & baking soda to form CO2	
	Activity(3): Reaction between	
	copper sulphate & iron	

# LESSON TITLE : Acids, Bases, and Salts

TOPIC	ACTIVITIES	VALUES/TRAITS
(1) Acids-Bases	Lab Based Activities	
Properties, Types & Uses	Activity(1): Touch & Taste Activity	Analytical skills
(2) Indicators		Observational skill
		Innovative thinking Experimental skill

(3)Universal indicators and pH values

(4) Neutralization Reaction

(5)Water of Crystallization



**Environment awareness** 

Problem solving in daily life

**Activity(2):** Litmus test to check whether the compound is an acid or a base.

Activity(3): Phenolphthalein test Activity(4): Methyl orange test

Activity(5): pH paper test

Activity(6): Turmeric paper test

Activity(7): Neutralization reaction

#### **LESSON TITLE**: Heat & Temperature

TOPIC	ACTIVITIES	VALUES/TRAITS	
(1) Temperature	Lab Based Activities	Analytical & Logical thinking	
Scales & Its Units			
	Activity(1): How to read a thermometer	Observational skill	
(2) Types of			
Thermometers	30 30 40	Scientific Temperament	
(3) Heat Energy &		Innovative thinking	
Modes of Heat			
Transfer	© Drumhala from the area to th	Awareness about some	
		Natural Phenomena	
(a) Conduction			

(b) Convection (c) Radiation	<b>Activity(2):</b> To measure the temperature of different objects like chilled water, hot water etc.	Knowledge about some devices used in daily life
(4) Structure of Thermos Flask		

#### LESSON TITLE : Soil

TOPIC	ACTIVITIES	<b>VALUES/TRAITS</b>	
(1) Soil Formation	Group Activities	Awaren	ess about some
	Activity(1): To separate the various	Natural	Resources
(2) Soil Profile	constituents of a soil sample into different		
	layers	Love for	Mother Earth
(3) Composition Of			
Soil	Activity(2): To find out the amount of water	Team sp	oirit
	absorbed as a percentage of the weight of		
(4) Properties of Soil	soil	Responsi	bility about
		environm	ent
(5) Types Of Soil	Activity(3): To find percolation rate of		
	water		
(6) Soil Erosion			
	Activity(4): Field trip to the 'Herbal Garden		
(7) Soil Pollution	of School'		

#### **LESSON TITLE**: Time & Motion

TOPIC	ACTIVITIES	VALUES/TRAITS
(1) Time & clocks	Individual Activity	
used in ancient time		Respect for Scientific
	Activity(1): To make a sand clock, water	developments
(2) Pendulum clock &	clock or sun dial	
Simple Pendulum	download time PSD lites www.guiddinit.com	Innovative thinking
(3) Speed	Obe A Cities	Public Awareness
(4) Distance-Time		
Graph		
(5) Uniform & non-		

uniform motion	Activity(2): Observe the reading of speedometer & odometer of your father's vehicle	
	Activity(3): To plot distance-time graph for uniform & non-uniform motion	

## **LESSON TITLE**: Respiration in Organisms

	VALUES/TRAITS
Activity(1): Make a model to	Analytical skills
demonstrate how the Diaphragm works	
during breathing	Creativity skill
	_
Activity(2): To measure the size of the	Knowledge skill
	Observational skill
	Logical & reasoning skills
nasal cavity	
pharynx	Awareness about Health &
	Fitness
epiglottis bronchus	Titiless
right lung	
1 6 3 6 3 1	
left lung	
y diaphragin pleural V	
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Activity(3):To measure the breathing rate	
.,,	
Activity(4): To show that heat is released	
	demonstrate how the Diaphragm works during breathing  Activity(2): To measure the size of the chest and feel Diaphragm  nasal cavity  pharynx trachea bronchus

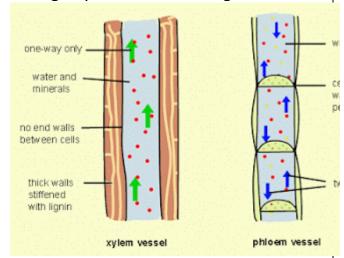
## **LESSON TITLE**: Transportation in Animals & Plants

TOPIC	ACTIVITIES	VALUES/TRA	AITS
(1) Circulatory System-	Activity(1): To measure the pulse-rate	Analytical skills	
Transportation	Activity(2): To make a model of	Creativity skill	

- (2) Functions of Blood
- (3) Heart-Structure & function
- (4) Transportation in Plants
- (5) Excretory System-Humans & Plants

Stethoscope

**Activity(3):** To show translocation through Xylem & food through Phloem



**Activity(4):** Make a chart or model of Human Excretory System

**Knowledge skill** 

**Observational skill** 

Logical & reasoning skills

Awareness about Health & Fitness