

# SARALA BIRLA PUBLIC SCHOOL

Birla Knowledge City, Mahilong, Ranchi



# Assignment (2023-24)



# <u>ENGLISH</u>

- 1. Click pictures of 10 different kinds of butterflies and write down their specifications like name, biological name, life span, food source and special features (if any).
- 2. Make a resource file including 15 20 articles of your interest from newspaper in a scrap book.

# <u>HINDI</u>

राम-लक्ष्मण-परशुराम संवाद पाठ के चौपाई -2 एवं चौपाई-3 के आधार पर लक्ष्मण एवं परशुराम के बीच हुए संवाद को हिंदी में लिखें ।

ए-4 साइज पेपर में।

#### **SANSKRIT**

दुर्गापूजा अवकाशकार्यम्

कक्षा- <u>दशम</u>

घड़ी बनाकर दिये गये निम्नलिखित समय

को दर्शाते हुए संस्कृत में समय लिखकर एक

वाल हैंगिंग बनाएँ ।

8:30 , 4:15, 5:00, 9:45

# <u>MATHS</u>

# 1. Answer the questions based on the given information. (In A4 size paper)

Shown below is a house of cards, a structure created by stacking playing cards on the top of each other in the shape of a pyramid. Each small triangle is made using 3 cards and each layer has 1 less triangle than the layer below it.

Ankit and his friends want to make a house of cards.

- a) Ankit and his friends want to use 3 cards in the top layer and 18 in the bottom layer., form an AP showing number of cards in each layer.
- b) They have a total of 360 cards with them, find maximum number of layers, if they want to have 1 triangle (3 cards) at the top layer.
- c) Ankit is planning to make a pyramid with the top and bottom layer containing 15 and 138 cards respectively. How many layers will such a pyramid have?
- d) Which mathematical concept is used here?



# 2. Do the following in maths activity (lab book ):

- a) Activity 1.2 (Quadratic Polynomials)
- b) Activity 1.5 (Arithmetic progression 1)

#### **SCIENCE**

# Physics

- **1.** State Ohm's law and draw a neat labelled circuit diagram containing a battery, a key, a voltmeter, an ammeter, a rheostat and an unknown resistance to verify it.
- 2. (a) Draw a V-I graph for a conductor obeying Ohm's law.
  - (b) What does the slope of V-I graph for a conductor represent?
- 3. Give two differences between an ohmic and non-ohmic resistor
- 4. (a) How does the resistance of a wire depend on its radius? Explain your answer.
  - (b) Two copper wires are of same length, but one is thicker than the other. Which will have more resistance?
- 5. In a conductor,  $6.25 \times 10^{16}$  electrons flow from its end A to B in 2 s. Find the current flowing through the conductor. (e =  $1.6 \times 10^{-19}$  C)

# Chemistry

- 1. Experiment: study the following properties of acetic acid.
  - (i) Odour
  - (ii) solubility in water
  - (iii) effect on litmus
  - (iv) reaction with sodium hydrogen carbonate
- 2. Experiment: study of the comparative cleaning capacity of a sample of soap in soft and hard water.

Write the above experiments in practical copy

# Biology

"When pea plants having round and yellow seeds were crossed with plants having wrinkled and green seeds, all the plants of F-1 generation had round and yellow seeds".

Find out the phenotypic ratio of F-2 generation.

Prepare a flow chart (in A-4 size sheet) to show the experiment.

# SOCIAL SCIENCE

# History

Make a chart (in A4 paper) stating the names of any 5 Inventions of the Industrial Revolution, the name of the inventor, the year, and a picture of the inventions.

# Civics

- A. List 5 problems that endanger democracy in our country.
- B. Suggest how students can contribute to making democracy more successful.

# Geography

Paste the pictures of different energy resources and mention their distribution and prospects in India.

# Economics

Project: Consumer Awareness

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