

# RAINBOW PUBLIC SCHOOL

[Affiliated to CBSE (10+2) Delhi]

Chira Chas, Bokaro

## HOLIDAY HOMEWORK (2023-24)

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**Class: XII (Science)**

**Subject: English**

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1. Write summary of the poem "A thing of Beauty" by 'Jhon Keats'. Paste picture related to the poem. Write it in A-4 size paper.
2. Give a biographical sketch of 'Robert Frost' along with picture.
3. Make a poster on the topic "Global Warming" Make it as attractive as possible.
4. You are a manager of ABC Ltd. sector 30 Gurgaon. You need an efficient data entry operator for your office. Write an advertisement for the 'Situation Vacant' column of a local daily.
5. You are a residential of shivaji Nagar Pune. You are concerned about the increasing number of road mishaps in your city. Write a letter to the editor of a local newspaper "Jan Chetna" highlighting the problem and suggesting measures to check the problem.  
Prepare this project as beautiful and attractive as possible in folder or stick file.  
All the topic should be written in A-4 Size paper.

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**Class:XII (Science)**

**Subject: Physics**

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1. To assemble the component of given electrical circuit.
2. To assemble a household circuit comprising three bulbs , three (on/off) switches , a fuse and a power source.
3. To draw the diagram of given open circuit comprising at least a battery, resistors / rheostat, key, ammeter and voltmeter.
4. To observe lateral deviation of a beam of light incident obliquely on a glass slab.
5. Use of Multimeter to see the unidirectional flow of current in case of a diode and an LED and check whether a given electronic component is in working order.

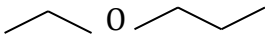
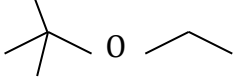
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**Class:XII (Science)**

**Subject: Chemistry**

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1. Define following.  
(i) Molality      (ii) osmosis      (iii) Raoult's law of Relative lowering of vapor pressure.  
(iv) Order of reaction.
2. Write reaction only for the following name reaction.  
(i) Swart reaction      (ii) Finkelstein reaction
3. Convert the following.  
(a) 2 - Chloropropane to 1 - Bromopropane  
(b) Ethanol to 3 - Hydroxybutanal
4. Complete the following.  
(i)  + HI →  
(ii)  + HI →
5. How will you prepared 1°, 2° & 3° Alcohol from Grignard reagent.

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1. Solve :  $\int \frac{3x + 5}{x^2 + 4x + 7} dx$

2. If  $x = a \cos \theta + b \sin \theta$ , and  $y = a \sin \theta - b \cos \theta$ ,  
Prove that  $y^2 \frac{d^2y}{dx^2} - x \frac{dy}{dx} + y = 0$

3. Find the intervals in which the function given by  $f(x) = \sin x + \cos x$ ,  $0 \leq x \leq 2\pi$  is increasing or decreasing.

4. Evaluate  $\int \frac{(\log x)^3}{x} dx$

5. Show that the maximum value of  $(\frac{1}{x})^x$  is  $e^{1/e}$ .

6. Prove that  $\sin^2x + \sin^2x + \sin^2y = 2$ .

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1. Draw labelled diagrams for the following.

(a) T.S of Testis

(b) Section view of human ovary

(c) A fertilized embryo sac of a dicot flower.

2. Give a brief account on Reproductive health.

3. Why do moss plants produce very large number of male gametes provide one reason. What are these gametes called?

4. List three states the annual and biennial angiosperms have to pass through during their life cycle.

5. Name and explain the role of inner and middle walls of human uterus.

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