Kendriya Vidyalaya Rameswaram
Holiday Homework 2021
Class – X

Sub – Social Science

Assignment

Ques1. What steps can be taken to control soil erosion in the hilly areas?

Ques2. How have technical and economic development led to more consumption of resources?

Ques3. Classify the Resources on the basis of ownership with examples?

Ques4. Classify the resources on the basis of development with examples?

Ques5. Mention the different forms of power-sharing in modern democracies.

Ques6. What Factors led a civil war in Sri Lanka?

Ques7. Who were Marianne and Germania? What was the importance of the way in which they were portrayed?

Ques8. Briefly trace the process of German unification.

Ques9. Briefly trace the process of italy unification.

Ques10. Who hosted the Vienna Congress in 1815? Analyze the main changes brought by the Vienna Treaty?

Ques11. What is the criterion used by the UNDP for classifying different countries?

Ques12. Why is the issue of sustainability important for development?

Ques13. What is the main criterion used by the World Bank in classifying different countries? What are the limitations of this criterion, if any?

Q 14.Map work.

Show the following points on the outline map of India.

1.Alluvial soil

2. Black soil

3. laterite soil

4. Red and yellow soil

5. Arid soil.

6. Mountainous soil

Ques15. Show the name of the states along with their capital of the outline map of India.(Use different colors to fill the Both Maps and make them Attractive)

Learning work

1. Exercise questions of geography 1ˢᵗ chapter.
2. Exercise questions of history 1ˢᵗ chapter.
3. Exercise questions of political science 1ˢᵗ chapter.
4. Exercise questions of economics 1ˢᵗ chapter.
5. Holiday homework assignments.

Sub – English

Dear students,

Complete the holiday project on the topice of " Tenses"

KENDRIYA VIDYALAYA RAMESWARAM
SUMMER VACATION HOLIDAY ASSIGNMENT (2021-22)
CLASS- X
SUBJECT- MATHEMATICS

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INSTRUCTIONS:

- *Read all the questions carefully before solving. Write the solution of questions in Mathematics homework or Activity notebook.*
- *Complete the project separately on A4 sheets in neat and clear hand writing and attractive.*
- *Write your name, class and section clearly at the front cover of project file.*

Section A (Questions)

1. Check whether 75/455 is terminating or non-terminating decimal expansion.
2. 654.737373... is a rational number. [TRUE/FALSE]
3. A polynomial of degree 2 is called ------------------ polynomial. (Cubic/ quadratic/ linear)
4. $\sqrt{25}$ is a ---------------number. (rational/irrational)
5. Find the quadratic polynomial whose sum and products of the zeros are 5 and -6.
6. Find the H.C.F. of 567 and 255 using Euclid's division lemma.
7. Find the LCM and HCF of 510 and 92 and check whether LCM x HCF = product of the given numbers .
8. Find the zeros of :
   (i) $6 x^2 -7x -3$ (ii) $4x^2 -4x +1$

9. Divide $x^3 - 3x^2 + 5x - 3$ by $x^2 - 2$ and find the quotient and remainder.

10. Prove that $\sqrt{3}$ is an irrational number.

11. Prove that $2 + 5\sqrt{3}$ is an irrational number.

12. Find the zeroes of the following polynomials by factorisation method and verify the relations between the zeroes and the coefficients of the polynomials:

  i. $4x^2 - 3x - 1$

  ii. $3x^2 + 4x - 4$

  iii. $5t^2 + 12t + 7$

13. For each of the following, find a quadratic polynomial whose sum and product respectively of the zeroes are as given. Also find the zeroes of these polynomials by factorisation.

(i) $\dfrac{-8}{3}, \dfrac{4}{3}$ (ii) $\dfrac{21}{8}, \dfrac{5}{16}$

(iii) $-2\sqrt{3}, -9$ (iv) $\dfrac{-3}{2\sqrt{5}}, -\dfrac{1}{2}$

14. Given that $\sqrt{2}$ is a zero of the cubic polynomial $6x^3 + \sqrt{2}x^2 - 10x - 4\sqrt{2}$, find its other two zeroes.

15. Given that $x - \sqrt{5}$ is a factor of the cubic polynomial $x^3 - 3\sqrt{5}x^2 + 13x - 3\sqrt{5}$, find all the zeroes of the polynomial.

16. Prepare 10 -10 MCQ TYPE QUESTIONS from CHAPTER-1 and 2. Also write the solution.

Section B (project work/activities)

17. Make a project on the title **" π - WORLD'S MOST MYSTERIOUS NUMBER"**

18. Perform following activities and write in activity notebook:

Activity 1: OBJECTIVE : To find the HCF of two numbers experimentally based on Euclid Division Lemma.

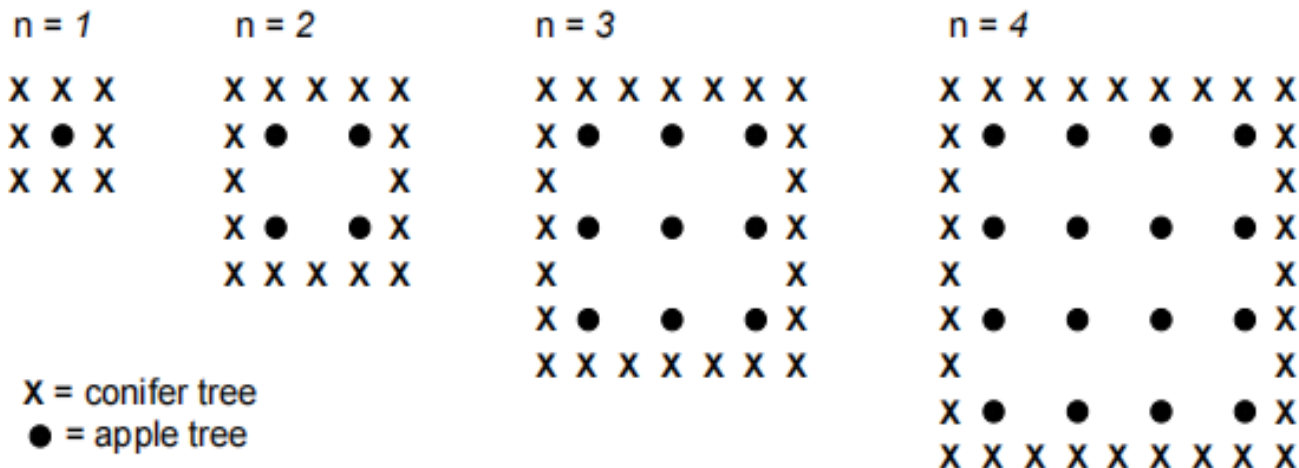**Activity 2: OBJECTIVE :** To draw the graph of a quadratic polynomial and observe:
(i) The shape of the curve when the coefficient of x^2 is positive.
(ii) The shape of the curve when the coefficient of x^2 is negative.
(iii) Its number of zeroes.

M136: Apples

A farmer plants apple trees in a square pattern. In order to protect the apple trees against the wind he plants conifer trees all around the orchard.

Here you see a diagram of this situation where you can see the pattern of apple trees and conifer trees for any number (n) of rows of apple trees:

```
n = 1          n = 2              n = 3                    n = 4

X X X          X X X X X          X X X X X X X            X X X X X X X X X X
X ● X          X ●     ● X        X ●   ●   ● X            X ●   ●   ●   ● X
X X X          X         X        X           X            X               X
               X ●     ● X        X ●   ●   ● X            X ●   ●   ●   ● X
               X X X X X          X           X            X               X
                                  X ●   ●   ● X            X ●   ●   ●   ● X
                                  X X X X X X X            X               X
                                                          X ●   ●   ●   ● X
   X = conifer tree                                       X X X X X X X X X X
   ● = apple tree
```

Question 1: APPLES

Complete the table:

n	Number of apple trees	Number of conifer trees
1	1	8
2	4	
3		
4		
5		

There are two formulae you can use to calculate the number of apple trees and the number of conifer trees for the pattern described above:

Number of apple trees = n^2

Number of conifer trees = $8n$

where n is the number of rows of apple trees.

There is a value of n for which the number of apple trees equals the number of conifer trees. Find the value of n and show your method of calculating this.

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Suppose the farmer wants to make a much larger orchard with many rows of trees. As the farmer makes the orchard bigger, which will increase more quickly: the number of apple trees or the number of conifer trees? Explain how you found your answer.

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KENDRIYA VIDYALYA RAMESWARAM

SUMMER VACATION PROJECTS ASSIGNMENT

SUBJECT Science

CLASS: X

Instructions:

1. Each student is requires to make a **Handwritten Project** report.

2. Write **Starting Date And End Date**.

3. **Layout** of your project must be as follows:

PAGE No.	CONTENT
Cover Page	Your Name, Class, Section, Roll No (as written in final exam), E-mail Id, Mobile No., Title of project
1	Index Page (Table of contents – page titles)
2	Brief discussion of project. How would you proceed?
3 to 10	Complete detail/procedure of the project with diagrams, graphs and proper examples
11	Result/Conclusion
13	List of resources used to make the project
Last page	Declaration "**This project is done by me independently.**" And Sign by Parents and students both.

4. Use only **A4 size paper** and write **Page number** on each sheet.

TOPICS OF THE SCIENCE PROJECT WORK (Choose only 1)

❖ **COVID-19:**
 What are infectious diseases? Name some communicable viral diseases.

The disease COVID-19 has become a pandemic in 2020-21. Collect data on the number of COVID-19 cases in India from March, 2020 to April 2021 Using graphs interpret the data on the trend of the number of cases in our country.

What are the measures suggested by the Ministry of AYUSH to boost immunity so that the chances of catching the COVID-19 disease may be reduced? What are your responsibilities in today's situation?

- **Study of adaptations of city flora to smog**
- **Smart Village**
- **Waste recycling**
- **A study of air purification methods**
- **Using solar energy to purify polluted or salt water**
- **Find an ink that would decompose for recycling paper**
- **Water pollution**
- **Global warming**
- **The effects of X-Ray and other radiation on plants**
- **Salivary Amylase and Starch Digestion**
- **A study of diffusion through cell membranes**
- **Study and experiment with Milk**
- **Heat Content of Snack Foods**
- **Experimenting with various separation techniques (e.g. electrophoresis)**
- **Chemistry of Ice-Cream Making: Lowering the Freezing Point of Water**
- **AGRICULTURAL PROCESS**

CHAPTER HOME ASSIGNMENT

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Note:- All the students prepare 20 MCQ Questions from Chapter-1 and Chapter-2

Note: All students prepare new practical file and complete these two experiment.

EXPERIMENT 9

AIM Object →

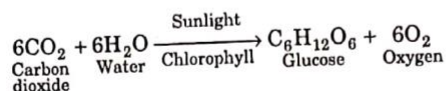*To show experimentally that light is necessary for photosynthesis.*

MATERIALS REQUIRED

(i) Potted plant
(iii) Black paper
(v) Spirit lamp
(vii) Cellotape

(ii) Forceps
(iv) Alcohol
(vi) Iodine solution

THEORY

During photosynthesis light energy is converted into chemical energy through biological reaction. Chlorophyll is the ultimate pigment which traps the solar energy and passes this energy for the formation of energetic chemical compound. All animals and humans depend upon green plants for their food requirements.

$$6CO_2 + 6H_2O \xrightarrow[\text{Chlorophyll}]{\text{Sunlight}} C_6H_{12}O_6 + 6O_2$$
$$\text{Carbon dioxide} \quad \text{Water} \qquad \qquad \text{Glucose} \quad \text{Oxygen}$$

DIAGRAM

Black paper
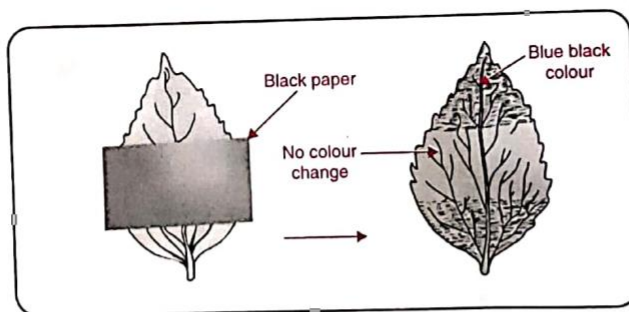
Blue black colour

No colour change

Fig. Experiment to show that light is essential for photosynthesis.

PROCEDURE

1. A potted plant is placed in dark place for 24 hours.
2. After 24 hours, put a black paper strip above and below the leaf surface.
3. Tie both the strips with the help of cellotape, so that the sunlight does not fall on surface of leaf under the black paper strips.
4. Replace the plant from dark place to sunlight for 3–4 hours.
5. After 3–4 hours, pluck this leaf and remove the black strips.
6. Decolourise the leaf by boiling in alcohol over a water bath and then put in iodine solution.

OBSERVATION

The uncovered part of the leaf turns blue because starch is formed, while the remaining region not receiving the sunlight remains yellow, because starch is not formed.

INFERENCE

For the formation of starch by the process of photosynthesis, light is essential.

PRECAUTIONS

1. Always destarch the potted plant by placing it in dark for at least 24 hours.
2. Do not boil the leaf in alcohol directly on flame.
3. Attach the black paper strip on both the surfaces of leaf.
4. Fix the black paper strips carefully to the leaf.

AIM Object

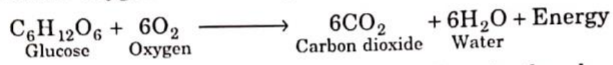To show experimentally that carbon dioxide is given out during respiration.

MATERIALS REQUIRED

(i) Germinating seeds of pea, gram or bean   (ii) Conical flask
(iii) Cork with one hole   (iv) stand with clamp
(v) Delivery tube   (vi) Test tube
(vii) KOH solution

THEORY

Respiration is the process by which organic food material (glucose) of the cell breaks down into simple substances to liberate energy and carbon dioxide. There are two types of respiration namely.

1. **Aerobic respiration:** Oxygen is necessary for the oxidation of food.

$$\underset{\text{Glucose}}{C_6H_{12}O_6} + \underset{\text{Oxygen}}{6O_2} \longrightarrow \underset{\text{Carbon dioxide}}{6CO_2} + \underset{\text{Water}}{6H_2O} + \text{Energy}$$

2. **Anaerobic respiration:** Anaerobic respiration takes place in the absence of molecular oxygen. In this respiration, the food is incompletely oxidised and much less amount of energy is released, and ethyl alcohol and carbon dioxide are produced.

$$\underset{\text{Glucose}}{C_6H_{12}O_6} + \underset{\text{Oxygen}}{6O_2} \xrightarrow[\text{Zymase}]{\text{Yeast}} \underset{\text{Carbon dioxide}}{2CO_2} + \underset{\text{Ethyl alcohol}}{6C_2H_5OH} + \text{Energy}$$
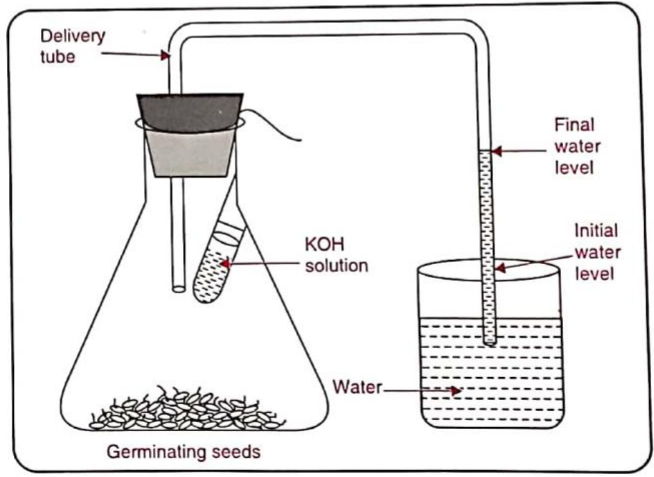
DIAGRAM

Fig. Experiment showing carbon dioxide is produced during respiration.

PROCEDURE

1. Germinate seeds of pea, gram or bean by placing them in moist cotton or blotting paper for 3–4 days.
2. Then put them into a conical flask with some KOH solution in a small test tube.

3. Pass a delivery tube bent twice at right angles in such a way, that one end of the tube is in the beaker and the other end in conical flask.
4. Fill the beaker with lime water.
5. Make the apparatus airtight with wax and keep the apparatus undisturbed for 4 to 5 hours.

OBSERVATION

After some time water level rises up in the delivery tube dipped in the water of the beaker.

RESULT

Germinating seeds in the conical flask release CO_2 during respiration. The CO_2 released is absorbed by KOH kept in small tube. This creates a partial vacuum in the flask which causes the rise in the level of water in the delivery tube.

PRECAUTIONS

1. Apparatus should be airtight.
2. The end of the delivery tube in the flask should not touch the germinating seeds.
3. Other end of delivery tube should be completely dipped in water.
4. The germinating seeds should be kept moist and should not be let dry.
5. Only germinating seeds should be used for the experiment.

कक्षा-१०

हिन्दी परियोजना कार्य

(२०२०-२०२१)

अपना परिचय

१- कवि सूरदास और महाकवि तुलसीदास में किसी एक का जीवन-परिचय लिखों ?

२- रस और रस के प्रकार को उदाहरण के साथ विस्तार पूर्वक लिखिए ?

३- एक औपचारिक या अनौपचारिक पत्र को लिखिए ?

४- अपनी पाठ्यपुस्तक से सम्बंधित एक कहानी का सारांश अपने शब्दों में लिखिए ?

५- अपनी पाठ्यपुस्तक की एक कविता की व्याख्या लिखिए ?

६- तत्कालीन किसी एक विषय पर विस्तार पूर्वक निबंध लिखिए ?