SCIENCE ASSIGNMENT

CLASS-IX

PREPARATION OF PROJECT FILE:

- Students will make a project file and draw the various plant and animal tissues in it.
- Diagrams should be drawn on left blank side with pencil only .
- On right side relevant comments should be there- location,structure,constituents and function of the tissues.
- Use your NCERT textbook for reference.
- Use practical pages to make the file.

LEARNING OBJECTIVES:
- Students will get a quick revision of the topics covered so far.
- Students will get a good practice of diagrams.
- The students will read the NCERT thoroughly.

SCIENCE ASSIGNMENT 2

CLASS-IX

Make a file having following contents:

- BIOLOGY- Draw the prokaryotic and eukaryotic cells and the function of various cell organelles.
- PHYSICS-Plot the various time velocity and displacement graphs showing uniform and non uniform motions.
- Explain all the three laws of motion, giving example from daily life.
- CHEMISTRY- Write the first 30 elements name and symbols from the periodic table.
- Write the chemical name, common names and uses of various compounds we use in our daily life.

LEARNING OBJECTIVES:
1. Students will be able to connect the knowledge with daily life.
2. Will get a revision of topics completed.
3. Practical knowledge will be enhanced.

SCIENCE WORKSHEET-1
CLASS-IX

BIOLOGY:

1.a)Name the cell without membrane bound organelles.

b)Name the functional segment of DNA that carries genetic information.

c)Where are proteins synthesized inside the cell?

d)Mitochondria is called the power house of the cell. Give reason.

2.a)Give four differences between plant and animal cell.

b)Write down the classification of plastids on the basis of pigment and their functions.

c)Draw the structure of a eukaryotic cell.

d)Why is plasma membrane called selectively permeable? Explain hypotonic, hypertonic and isotonic solution.

PHYSICS:

1.a)If the position of an object does not change with time, it is said to be at --------.

b)The rate of change of velocity of a moving body with time is called-------

c)Write any two differences between uniform and non uniform motion.

d)A car travels 10 km in every 5 secs: its motion is uniform or non uniform.

2.a)The velocity changes from 45m/s to 60m/s in three seconds. What is the acceleration.

b)A person goes to market, makes purchases and comes back at a constant slower speed. Draw the displacement –time and velocity-time graphs of the person.

c)A train accelerated from 20km/hr to 80km/hr in 4 minutes. How much distance does it cover in this period assuming that the tracks are straight.

d)Explain the laws of motion taking examples from your daily life.

CHEMISTRY:

1.a)The smell of perfume gradually spreads across the room due to ------

b) As the volume of a specific amount of gas decreases , its volume -------

c)is the change of gaseous state directly to solid state without going through a liquid state.

d) Water is more dense in liquid or in solid state. Give a suitable example.

2.a)What produces more severe burns, boiling water or stem?

b)Explain how gases can be liquefied.

c)What is a unit cell?

d)What is the effect of temperature on surface tension?

Holiday Homework

Subject – Mathematics

9th Class

- **Complete your Mathematics practical file.**
- **Solved all assignment already given.**
- **Solve the following question chapter wise**

Chapter –Number System

1. Every whole number is a natural number write true or false.

2. If $x = \dfrac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ and $y = \dfrac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$, find the value of $x^2 + y^2 + xy$.

3. If $x = \dfrac{2-\sqrt{5}}{2+\sqrt{5}}$ and $y = \dfrac{2+\sqrt{5}}{2-\sqrt{5}}$, find the value of $x^2 - y^2$.

4. Determine rational numbers p and q if
$$\dfrac{7+\sqrt{5}}{7-\sqrt{5}} - \dfrac{7-\sqrt{5}}{7+\sqrt{5}} = p - 7\sqrt{5}\,q.$$

5. Simplify: $\dfrac{6}{2\sqrt{3}-\sqrt{6}} + \dfrac{\sqrt{6}}{\sqrt{3}+\sqrt{2}} - \dfrac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}}$.

6. Simplify: $\dfrac{3\sqrt{2}}{\sqrt{6}-\sqrt{3}} + \dfrac{2\sqrt{3}}{\sqrt{6}+2} - \dfrac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}}$.

7. Show that: $\dfrac{1}{3-\sqrt{8}} - \dfrac{1}{\sqrt{8}-\sqrt{7}} + \dfrac{1}{\sqrt{7}-\sqrt{6}} - \dfrac{1}{\sqrt{6}-\sqrt{5}} + \dfrac{1}{\sqrt{5}-2} = 5$

8. If: $x = \dfrac{\sqrt{p+q}+\sqrt{p-q}}{\sqrt{p+q}-\sqrt{p-q}}$, then find the value of $qx^2 - 2px + q$.

9. Show that: $\dfrac{x^{-1}+y^{-1}}{x^{-1}} + \dfrac{x^{-1}-y^{-1}}{x^{-1}} = \dfrac{x^2+y^2}{xy}$

10. If $2^a = 3^b = 6^c$ then show that $c = \dfrac{ab}{a+b}$.

11. If $x = 2 + 3\sqrt{2}$, then find the value of $\left(x + \dfrac{14}{x}\right)$.

Chapter – Polynomial

1. If $x^2 + \dfrac{1}{x^2} = 18$ then find the value of $x - \dfrac{1}{x}$.

2. **Factorise:** $(a-b)^3 + (b-c)^3 + (c-a)^3$
3. **Factorise:** $14x6 - 45x^3y^3 - 14y^6$

4.Find the product: $(x - 3y)(x + 3y)(x^2 + 9y^2)$

5. If $x^2 - 3x + 2$ divides $x^3 - 6x^2 + ax + b$ exactly, then find the value of 'a' and 'b'

Chapter-Linear equation

1. Through which of the following points, the graph of $y = -x$ passes?
   (i) (1, 1)
   (ii) (0, 1)
   (iii) (–1, 1)
2. Through which of the following points, the graph of the linear equation $3x - 2y = 0$, passes?

   (i) $\left(\dfrac{2}{3}, -\dfrac{2}{3}\right)$ (ii) $\left(\dfrac{2}{3}, \dfrac{3}{2}\right)$ (iii) $\left(\dfrac{1}{3}, \dfrac{1}{2}\right)$

3. On which of the following equations, the point of the form (m, –m) lies?
   (i) x = –m
   (ii) x + y = 0
   (iii) y = x
4. Do the points (2, 0), (–3, 0), (0, 2), (0, –5) lie either on x-axis or y-axis?
5. Which equations graph is at a distance 3 units to the left of y-axis?
   x = 3; x = –3; or y = x
6. The graph of which of the following equations passes through the origin?
   (i) y = 2x + c
   (ii) y = 2x – c
   (iii) y = 2x
7. Fill in the blank: The equation 2x + 5y = 7 has a unique solution, if x and y are ….

Chapter- Coordinate geometry

1. In which quadrant or on which axis do each of the points (-2,4), (3,-1), (-4,0), (2,3) lie?
2. What is the abscissa of origin?
3. At what point the axes intersect?
4. What is the sign of y-coordinate below the x-axis?
5. What are the coordinates of a point lying on the y-axis at negative 3 units?
6. If the y- coordinate of a point is zero, then where does this point lie?
7. What are the coordinates of a point whose ordinate is 5 and lying on the y-axis?
8. If the two points are A (-3,7) and B(-7,5), then what is (abscissa A)- (abscissa B)?
9. What is the sign of x-coordinate in quadrant II?
10. A point is such that (abscissa of the point, other than zero) that it equals to the ordinate of the point. In which quadrants can the point lie?

Chapter –Euclid Geometry

1. What is a closed figure formed by three line segments called?
2. Explain Euclid's fifth postulate.
3. Prove that an equilateral triangle can be constructed on any given line segment.
4. How can you prove that two different lines can't have more than one point in common?
5. What is Euclid's second axiom?
6. What do you understand by a theorem?
7. In how many chapters Euclid divided his famous treatise, "The elements"?

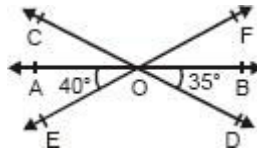**8.** If P,Q and R are three points on a line, and Q lies between P and R, then prove that PQ + QR = PR

Chapter-Line & Angles
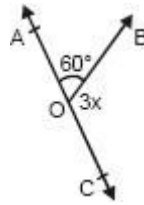
1. In the given figure, AOC is a line, find x.
2. In the given figure, $\overline{PQ}$ and $\overline{MN}$ intersect at O.
   (a) Determine y, when x = 60°.
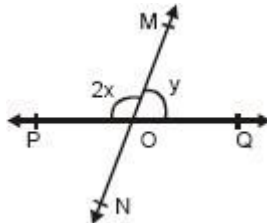
   (b) Determine x, when y = 40°.
3. In the given figure, lines Ab, CD and EF intersect at O.

   Find the measure of ∠AOC, ∠COF.
4. The exterior angles obtained on producing the base of a triangle both ways are 100° and 120°. Find all the angles.
5. ΔABC is right angled at A and AL ⊥ BC. Prove that ∠BAL = ∠ACD.
6. If two parallel lines are intersected by a transversal, prove that the bisectors of the two pairs of interior angles enclose a rectangle.
7. The angles of a triangle are arranged in ascending order of magnitude. If the difference between two consecutive angles is 10°, find all the three angles.
8. In the given figure, POQ is a line. Ray $\overline{OR} \perp PQ$, $\overline{OS}$ is another ray lying between rays $\overline{OP}$

$$\angle ROS = \frac{1}{2}(\angle QOS - \angle POS).$$
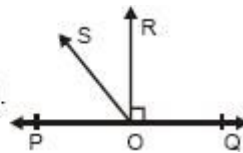
and $\overline{OR}$. Prove that
9. Can a triangle have two obtuse angles? Give reason for your answer.
10. How many triangles can be drawn having its angles as 45°, 64° and 72°? Give reason for your answer.

M.D SENIOR SENIOR SECONDARY SCHOOL

MANKROLA - GURUGRAM

हिन्दी ग्रीष्म अवकाश गृहकार्य (2020-2021)

विषय - हिन्दी

कक्षा - नवीं

प्रश्न -1 निम्नलिखित में से किसी एक विषय पर नारा लिखें और रंगों का प्रयोग के उसे सुंदर व आकर्षक बनाए ।

कोरोना , शिक्षा , पर्यावरण तथा नारी समानता

प्रश्न -2 कक्षा नवीं के स्तरानुकूल किन्हीं 10 विलोम शब्दों को फ्लैश कार्ड पर बनाकर प्रस्तुत करें ।

प्रश्न -3 निम्न शब्द - युग्मों के अर्थ लिखकर उनके वाक्य बनाकर उनमें अंतर स्पष्ट करें   :-

(I) अभय - उभय (II) वारिद - वारिज (III) तरणि - तरुणी (IV) गृह - ग्रह (v) अपकार - उपकार (VI) दिन - दीन (VII) सुत - सूत (VIII) सुर - शूर (IX) प्रसाद - प्रासाद (X) अनल - अनिल

प्रश्न -4 निम्न शब्दों से उपसर्ग , मूलशब्द तथा प्रत्यय अल्सग करें :-

(i) असमानता (II) पराजय (III) आलौकिक (IV) साधारणतया (V) बेमिसाल (VI) दुराचारी (VII) स्वदेशी (VIII) अधार्मिक (IX) बेचैनी (X) गिरावट (XI) घबराहट (XII) अपमानित (XIII) बदचलनी (XIV) अभिमानी (XV) परतंत्रता

प्रश्न -5 अपने किसी भी प्रियजन को शुभकामना (जन्मदिवस पर , विवाह की वर्षगाँठ पर , परिवार में नए सदस्य के आने पर , विशेष पर्व पर , कक्षा में व किसी प्रतियोगिता में प्रथम आने पर , राष्ट्रपति द्वारा सम्मानित होने पर इत्यादि) देते हुए एक संदेश लिखें ।

प्रश्न -6 विद्यालय की वार्षिक पत्रिका हेतु कोई भी एक स्वरचित लेख लिखें ।

 नोट :   1) प्रश्न - 1,2 तथा 6 A4 साइज़ के कागज़ पर करें ।

        2) प्रश्न -3 , 4 तथा 5 एक नई कार्य-पुस्तिका पर करें ।

M.D. SENIOR SECONDRY SCHOOL-MANKROLA-GURUGRAM	
HOLIDAY HOME WORK-JUNE2020	
CLASS-IX	

SUBJECT-ENGLISH

SUBJECT-TEACHER-RISHI DUTT SHARMA

INSTRUCTIONS-
ALL THE GIVEN HOMEWORK HAVE TO DO IN A SEPARATE HOMEWORK COPY
YOU HAVE TO DO ALL THE WORK WITH A BEAUTIFULL HAND AND CLEARLY.

DATED	DESCRIPTION OF THE GIVEN HOMEWORK
13-06-20	READ CHAPTER-1, THE FUN THEY HAD-WRITE 15 SHORT QUESTIONS, DO COMPREHENSIVE PRACTICE OF ANY TWO PARAGRAPH OF THE LESSON, FIND DIFFICULT WORD, FIND THEIR SYNONYMS AND ANTONYMS AT LEAST 5 FROM EACH PARAGRAPH
14-06-20	LEARN AND DISCUSS – WHY I LOVE MY SCHOOL, HOW COMPUTERS HELP US.
15-06-20	DO THE PRACTICE OF SIMPLE PRESENT INDEFINITE TENSE BY MAKING SIMPLE SENTENCE AND INTERROGATIVE SENTENCE. AT LEAST 20
16-06-20	READ CHAPTER-1, THE LOST CHILD- WRITE THE SUMMARY OF THE LESSON AND PICK OUT 15 QUESTIONS/ANSWER FROM THE SUMMARY.
17-06-20	DO THE PRACTICE OF SIMPLE PAST INDEFINITE TENSE BY MAKING SIMPLE SENTENCES AND NEGATIVE, INTERROGATIVE SENTENCES. AT LEAST 20
18-06-20	DO THE PRACTICE OF GAPS FILLING BY THE USE OF VERBS, MODALS, DETERMINERS, PREPOSITIONS. AT 20 FILL IN THE BLANKS FOR EACH SECTION.
17-06-20	READ THE CHAPTER- A SOUND OF MUSIC- WRITE ABOUT EVELYN GLENNIE IN ABOUT 150 WORDS ABOUT HER CHILDHOOD, HER STRUGGLE TO ACHIEVE A HER GOAL, APRRECIATION FROM THE WORLD.
18-06-20	LEARN THE ARTICLE – CRUELTY AGAINST ANIMAL
19-06-20	DO PRACTICE OF UNSEEN PASSAGES- MAKE MCQ, FILL UP AND QUIZ . AT LEAST 15 FOR EACH SECTION.
20-06-20	READ THE CHAPTER OF CLAUSES-DEFINITION-PRINCIPLE CLAUSE-SUBORDINATE CLAUSE-COMPOUND SENTENCES AND COMPLEX SENTENCES- USE OF CONJUNCTION- AND, BUT, IF, WHEN, WHERE, WHOM, WHICH, WHAT. ETC.
21-06-20	DO THE PRACTICE OF INTEGRATED EXERCISE FOR ERROR CORRECTION AND OMMISSION WITH GRAMMAR TOPICS .
22-06-20	READ THE STORY OF BISMILLAH KHAN AND WRITE THE SUMMARY ABOUT HIS CHILDHOOD, HIS ACHIVEMENTS, HIS WORLD FAMOUS WORK OF PLAYING SEHNAYI
23-06-20	DO THE PRACTICE OF MODALS-CAN, COULD, MAY, MIGHT, SHALL, SHOULD, WILL, WOULD, MUST, BY MAKING SENTENCES WITH THE USE OF GIVEN MODALS. AT LEAST 10 FOR EACH ONE.
24-06-20	WRITE DESCRIPTIVE PARAGRAPH ON THE TOPICS- A SKY AT NIGHT AND MY FRIENDS AND FAMILY IN ABOUT -150 TO 200 LIMITS
25-06-20	READ THE CHAPTER – THE ADVENTURES OF TOTO-MAKE SHORT QUE/ANS INTO IT- DO COMPREHENSIVE PRACTICE OF ANY TWO PARAGRAPH OF THE LESSON, FIND DIFFICULT WORD, FIND THEIR SYNONYMS AND ANTONYMS AT LEAST 5 FROM EACH PARAGRAPH.
26-25-20	WRITE THE DIARY ON THE GIVEN TOPICS- YOU HAVE JUST RETURN AFTER WATCHING A MUSIC COMPETITION AND YOU HELPED VICTIMS OF A NATURAL/MAN MADE DISASTERS.
27-06-20	DO THE PRACTICE OF ALL TYPES OF DETERMINERS-USE THEM BY MAKING DIFFERENT SENTENCES ATLEAST 50
28-06-20	DO THE PRACTICE OF SIMPLE PREPOSTION- USE THEM BY MAKING DIFFERENT SENTENCES ATLEAST 50
29-06-20	DO THE PRACTICE OF RE-ORDERING SENTENCES-BY REORDER DIFFERENT TYPES OF SENTENCES.
30-06-20	WRITE A STORY-HOW RELATIONSHIPS GIVE AN EMOTIONAL SUPPORT

M.D SENIOR SECONDARY SCHOOL
MANKROLA - GURUGRAM

HOLIDAY HOME WORK SOCIAL SCIENCE CLASS 9 (2020-21)

Dear students,

KINDLY REVISE THE CHAPTERS WHICH HAVE BEEN COVERED IN THE ONLINE CLASSES.

Also do the PROJECT WORK which will be evaluated for Subject Enrichment.

- GEOGRAPHY- INDIA- SIZE AND LOCATION
- ECONOMICS- THE STORY OF THE VILLAGE PALAMPUR
- POLITICAL SCIENCE- WHAT IS DEMOCRACY? WHY DEMOCRACY?

1. Project – Disaster Management (HANDWRITTEN)

"We cannot stop natural disasters but we can arm ourselves with knowledge: so many lives wouldn't have to be lost if there was enough disaster preparedness." - Petra Nemcova

Keeping the above statement in mind, prepare a project on Disaster Management as per the following guidelines:

Part 1: Highlight the following: -

Q1. Definition of a 'Disaster'.

Q2. What is a disaster management cycle?

Q3. What are the various types of Disasters?

Q4. What is vulnerability and risk?

Q5. What is a Hazard? How is it classified?

Q6. Differentiate between hazard and disaster.

Q7. What is a pandemic? How is it different from an epidemic?

Part 2: Prevention and Mitigation of Common Disasters in India.

Select any one of the following disasters for your project.

- **Earthquake**

- **Cyclones (recent one)**

- **Flood**

- **Drought**

- **Landslides**

- **Any man – made disaster**

2. MARK THE FOLLOWING ON A PHYSICAL MAP OF INDIA

(KINDLY REFER THE MAP ATTACHED OR GEOGRAPHY TEXT BOOK CHAPTER 3 DRAINAGE)

Map to be pasted on A4 SIZE SHEET

Rivers:

A. The Himalayan River Systems-The Indus,The Ganges, and The Satluj

A. The Peninsular rivers- Narmada, Tapi, Kaveri, Krishna, Godavari, Mahanadi

B. **Lakes:** Wular, Pulicat, Sambhar, Chilika, Vembanad, Kolleru

This map is only for reference.