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**THE JAIN INTERNATIONAL SCHOOL**

**KANPUR**

**HOLIDAY HOMEWORK**

**CLASS-IX**

| **SUBJECTS** | **TOPIC** |
| --- | --- |
| **ENGLISH** | **(Make a separate Holiday H.W Project File & do all the given work in that.)**   1. **Write & learn Irregular Forms of the Verbs.** 2. **Write & learn Degrees of Adjectives.** 3. **Read out English news paper(Times of India) and write 10 new words from that daily.** 4. **Daily 1 page Practice of Cursive Writing.** 5. **Read the chapters 1 to 3 from Moments Supplementary Reader and write the answers for the questions**   **6. Read the Newspaper daily and write only one news article under the given headings like National, International, Sports, Glamour, Business and express your views on it.**  **7. Computers are a storehouse of knowledge and wisdom and they are hazardous too. Write an article on the topic The benefits and harms of computers'. Word limit is 180-200 words.** |
| **HINDI** | 1. अपनी पाठ्यपुस्तक(क्षितिज) के पढ़ाए गए पाठों में से किसी एक पाठ का परियोजना कार्य/ मॉडल तैयार कीजिए। **या** व्याकरण से संबंधित किसी एक विषय पर वर्किंग मॉडल तैयार कीजिए।  2. अपनी पाठ्य पुस्तक (कृतिका) में दिए गए पाठ मेरे संग की औरतें और रीढ़ की हड्डी को ध्यान से पढ़कर किसी एक पाठ का सार (करीब 250-350 शब्दों में)अपने शब्दों में अपनी गृहकार्य पुस्तिका में लिखिए।  3. समाचार पत्र समाज का दर्पण पर---- एक अनुच्छेद (150 -200 शब्दों में) अपनी गृहकार्य पुस्तिका में लिखिए। |
| **MATHS** | Worksheet is attached with this link. Open and solve it and solve in maths fair notebook.  [**https://docs.google.com/document/d/1SKH7ZIfFwOA3GTG2Him82YE7u2sL1s8gBjEiOhaea7I/edit?usp=drivesdk**](https://docs.google.com/document/d/1SKH7ZIfFwOA3GTG2Him82YE7u2sL1s8gBjEiOhaea7I/edit?usp=drivesdk) |
| **SCIENCE** | **Biology**  1Make a model and related explanatory chart for the following topics as per your roll nos.(use waste materials like woolen thread, strings,plastic ball, groundnut shell etc.in your model)  Chloroplast-Roll no. 1-3  Mitochondria Roll no. 4-6  Plasma membrane Roll no. 7-9  Nucleus- Roll no. 10-12  Animal cell- Roll no. 13-15  Plant cell - Roll no. 16-18  Prokaryotic cell - Roll no. 19-21  Mitosis- Roll no. 22-24  Meiosis- Roll no. 25-28  Endoplasmic reticulum- Roll no. 29-31  2. Do the given worksheet in your classwork register.  <https://docs.google.com/document/d/19W7hBGtbEwJ1vtXy2EreF_LpRRTj7_WS/edit?usp=drivesdk&ouid=116453593750853594452&rtpof=true&sd=true>  **PHYSICS:**  **Do the given worksheet in your classwork register**  [**https://docs.google.com/document/d/1wHhuZhTOXajGlQo9TKyOsySAeoW2S1BQ/edit?usp=drivesdk&ouid=118420316635596359723&rtpof=true&sd=true**](https://docs.google.com/document/d/1wHhuZhTOXajGlQo9TKyOsySAeoW2S1BQ/edit?usp=drivesdk&ouid=118420316635596359723&rtpof=true&sd=true)  **Chemistry -** [**https://drive.google.com/file/d/1FStHIxMQ3dtPVYQKHBCBEM37OlVL3HRz/view?usp=drivesdk**](https://drive.google.com/file/d/1FStHIxMQ3dtPVYQKHBCBEM37OlVL3HRz/view?usp=drivesdk) |
| **PAINTING** | **Make Music instruments using cardboard.**  **Guitar 🎸 , tabla , Harmonium , violin 🎻** |
| **SOCIAL SCIENCE** | **Students have to make either of the two-**  **A Model**  **or**  **A Chart + Project on Disaster Management**  **Project must be handwritten,Moreover following things to be kept in project-**  **Acknowledgement page,Index,Certificate page.**  **\*Few suggested topics for Model- 1) India -climate/Natural Vegetation/Seasons/Climate**  **2) Hitler and Germany 3) Democracy 4) Human Resources etc. Or any other topic after discussion.** |
| **IT** | 1)Make a Vlog of any trip/memorable day in summer vacation.  2)Make a list of 10 New apps introduced recently.  3)Make a model and related explanatory chart for the following topics as per your roll nos.  a)Roll no. 1-8-Smart city  b)Roll no. 9-14- Laser home security system  c)Roll no. 15-19- Robots  d) Roll no. 20-26- Escalator  e)Roll no. 29-31–smart bridge |

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**THE JAIN INTERNATIONAL SCHOOL, KANPUR**

**Class-IX  
Subject-Physics**

**Worksheet- Motion**

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Q-1) Derive All three equations of motion.

Q-2) Write two differences between velocity and acceleration.

Q-3) Define a following with unit.

(A)Acceleration (B) Average speed(c) Retardation

Q-4) A car is moving with velocity of 72 km/h after 5 seconds its velocity becomes 36 km/h.Find out its acceleration.

Q-5) A bus starting from rest moves with a uniform acceleration of 2 m/s² for 2 minutes. Find out speed acquired and distance travelled.

Q-6) A boy completes one round of a circular track of radius 28m.What will be distance and displacement covered by him after 3 cycles?

Q7) An object starting from rest travels 20 m in first 3 s and 160 m in next 4 s. What will be final velocity after 7 sec?

Q8) An athlete covers 2.5 rounds of a circle of radius 200 m in 5 minutes and 30 sec. Find out distance, displacement and time taken in one round by the athlete.

Q9) Why is circular motion an accelerated motion?

Q10) Write two differences between distance and displacement.

Q11) What is instantaneous velocity?

Q12) A boy covers 4km in north direction and 3 km in east direction, find distance and displacement covered by the boy.

Q13) Drive all three equations of motion by graphical method.

Q14) Write equations of motion under acceleration due to gravity.

Q15) A car is moving with speed 72 km/hrs and suddenly the driver applies brakes and the car stops in 10 seconds, finding retardation and distance traveled by car.



**THE JAIN INTERNATIONAL SCHOOL, KANPUR**

**HOLIDAY HOMEWORK (2023 - 24)**

**SUBJECT: Chemistry**

**CHAPTER: Matter In our surrounding**

**CLASS: 9th**

**Answer the following question**

1. What is a matter?
2. What is matter made up of? What is the name of these particles?
3. What are the physical states of matter?
4. What does increase in pressure leads to formation or melting of ice?
5. Why vaporization is a surface phenomenon?
6. At what temperature vaporization takes place?
7. Can solid have vapour phase?
8. What is sublimation?
9. How can we boil water at room temperature?
10. Why does ice floats over water?
11. Why do we feel cool after applying shave lotion or perfume?
12. Why does evaporation cause cooling?
13. Convert 300 k into Celsius scale and -10 c into Kelvin scale
14. Name the property of due to which it is possible to fill in cylinders for using as a fuel?
15. Why does the smell of hot cooked food reach you several meters away within seconds?
16. Give reasons to explain why it takes longer to dry wet clothes in humid weather?
17. Why gases are compressible but not liquid?
18. How does water kept in earthen pot becomes cool during summer?
19. Define the terms sublimation? Write the names of any two substances which sublime?
20. Give two factors that affect the rate of evaporation?
21. Which of the following is matter?

(a) chair, air, love, smell, hate almond, thought, cold drinks, smell of perfume.

1. Explain the following

(a) Gasses exerts pressure on the walls of the container

(b) Water is liquid at room temperature

(c) Evaporation causes cooling

1. Wax is heated in a china dish. How will the following change during heating

(a) Kinetic energy of the particle

(b) Inter particle distance

1. You are provided with a mixture of naphthalene and ammonia chloride by your teacher .Suggest an activity to separate them with well labeled diagram

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**The Jain International School, Kanpur**

**BIOLOGY WORKSHEET**

1. Why is the plasma membrane called a selectively permeable membrane?
2. What is the protoplasm surrounding the nucleus called?
3. What are the functions of ribosomes,lysosomes,centrosomes RER, SER, vacuoles, chloroplast,chromoplast,Golgi bodies and mitochondria?
4. Name the nucleic acid found in chromosomes.
5. Name the following structure: a)structure and function unit of life b)powerhouse of the cell.
6. Why does the plant cell remain more rigid than the animal cell?
7. When do chromatin threads appear as chromosomes?
8. What are genes?
9. Where is the nucleolus located in a cell?
10. Name the structure which provides rigidity in animal cells.
11. Name the components which constitute ribosomes.
12. Name an Animal cell which does not possess a nucleus.
13. Where is DNA located in a prokaryotic cell?
14. What is endocytosis, exocytosis, phagocytosis and plasmolysis?
15. Differentiate between various types of plastids.
16. Name the composition of plasma membranes. Write their specific role.
17. What are grana? What rule do they play?
18. Why are pores necessary in the nuclear envelope?
19. Why are genes called hereditary units?
20. Write five differences between prokaryotic and Eukaryotic cells.
21. What role does endoplasmic reticulum play in synthesis of cell membrane?
22. Why is transport of material essential in living organisms?
23. What is the difference between diffusion and Osmosis?
24. What will happen if the plasma membrane gets raptured?
25. Write five differences between Plant cell and Animal cell.

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# The Jain International School, Kanpur

**Holiday Homework Worksheet**

**Subject-Mathematics (041)**

**Class- IX**

### Number system

1. Find five rational numbers between and .
2. Find five rational numbers between and .
3. Express each of the following decimals in the form where are integers and .
4. (b) (c)
5. Express as a fraction in simplest form.
6. Represent on the number line.
7. Represent on the number line
8. Simplify by rationalizing the denominator:
9. (b) (c)
10. Find the values of a and b:
11. If , find the value of
12. If , find the value of
13. If and , find the value of
14. Prove that
15. Find the value of :

**Polynomials**

1. If find
2. Write the coefficient of in
3. Give an example of a trinomial of degree 4.
4. Define various types of polynomials on the basis of:
5. Number of terms
6. Degree of polynomial
7. Find the remainder when the polynomial is divided by .
8. Check whether is a factor of .
9. If the polynomials and leave the same remainder when divided by ,find the value of . Also, find the remainder in each case.
10. Find the value of for which is a factor of
11. If is a factor of find
12. Evaluate without multiplying directly.
13. If and , find
14. Find the remainder when is divided by
15. Factorise:
16. Factorise:
17. Factorise:

**Coordinate Geometry**

1. Plot the following points on graph paper
2. (-3, 5) (b) (5,7) (c) (-2, -6) (d) (4, -5) (e) (2, -3) (f) (2,0)
3. What will be the coordinate of the point lying on x-axis?
4. What will be the coordinate of the point lying on y-axis?
5. Identify the quadrant/axis to which the following points lie
6. (7,3) (b) (3, -5) (c) (4,0) (d) (-4, -5) (e) (0,3) (f) (-2,5)
7. Plot the points A (5,5) and B (-5,5). Join AB, OA and OB, where O is Origin. Name the type of triangle so obtained.
8. Find the coordinates of the points
9. Which lies on both x and y- axis.
10. Whose abscissa is 5 and lies on x-axis.
11. Whose ordinate is -4 and lies on y-axis.
12. Plot the points P (-2, 1), Q (2,1), R (3,2) and S (-1,2) and write the name of the figure thus obtained.

CLASS IX ENGLISH WORKSHEET

1. She ——————– the railway station before the train came.

a) had reached

b) has reached

c) reached

d) was reached

2. His uncle does not ——————— here.

a) live

b) lives

c) living

d) lived

3. Peter ————————- editing this magazine for twenty five years by next January.

a) will be

b) will have been

c) is

d) would be

4. Peter ——————— two wickets before rain interrupted play.

a) took

b) has taken

c) had taken

d) had took

5. I ———————– him twice before he left for New York.

a) saw

b) have seen

c) had seen

d) seen

6. Edison —————————- newspapers before he became a famous inventor.

a) sold

b) had sold

c) was selling

d) had been selling

7. In my youth I ————————- exercise every day.

a) had taken

b) took

c) was taking

d) had been taking

8. She ——————— for Delhi this evening.

a) is leaving

b) was leaving

c) have been leaving

d) had left

9. Heat ———————- bodies.

a) expanded

b) would expand

c) expands

d) is expanding

10. We ————————— living here since 1990.

a) were

b) are

c) have been

d) had been

11. We ————————- here for ten years now.

a) lived

b) have lived

c) had lived

d) were living

12. Did you ——————- him?

a) seen

b) see

c) saw

d) were seeing

13. Nobody will ever ———————– what happened to her.

a) know

b) knew

c) had known

d) be knowing

14. I could ———————– her if I wanted to.

a) have married

b) marry

c) married

d) be marrying

15. Does she ———————- what she is doing?

a) knows

b) know

c) knew

d) had known

16. When I visited him he ——————— bed-ridden for two months.

a) was

b) has been

c) had been

d) were

17. I ——————– school last year.

a) left

b) had left

c) leaved

d) was leaving

18. There ——————— a famine in Bengal in 1982.

a) was

b) has been

c) were

d) had been

19. Akbar ————————– the Moghul power paramount in India.

a) had made

b) has made

c) made

d) would make

20. John has ———————- home.

a) went

b) go

c) gone

d) going