



DELHI WORLD PUBLIC SCHOOL RAJKOT

Holiday Home Work

Session 2024-25

Std: 12 science



Hey Kids !

Summer Vacation is a welcome break..... Break from fixed schedule, rules & regulations of school, freedom from Teachers and time table. Freedom brings more responsibility, Keeping this in mind, we have planned most of the activities for you to keep you engaged positively and your energies well directed. Though teachers will not be physically present to keep a supervisory eye on you and your work. Guardian Angels at home i.e. your dear mama and papa are there to take care of your emotional, social, physical & academic needs.

We hope your home work and activities will be well managed and presented so that all of you earn a golden star ★ as a grade.

We wish you a wonderful time ahead!

Good Habits and Good Manners are life long assets and manners must be practiced until they become a habit.

Four magic words that are basics of good manners are - Please, Thank you, Excuse me and Sorry. Make these four words a habit and see the difference.

MANNERS:

At home:

- ⊕ Help to keep the house clean especially the areas you use. Clear the toys, books or crafts that remain after you have finished.
- ⊕ Honesty is the best policy. Tell the truth at all times.
- ⊕ Be polite.
- ⊕ Share the T.V time. Do not sit too close while watching T.V.
- ⊕ Be fair with your friends, brothers and sisters.
- ⊕ Be responsible.



At the dining table:

- ⊕ Take small helpings and refill, clean your plate up.
- ⊕ Take small bites, eat neatly, slowly with your mouth closed.
- ⊕ Help to clear the table and clean up.

In the Park:



- ⊕ Littering makes the park untidy.
- ⊕ Destroying the plants or plucking the flowers will spoil the beauty.
- ⊕ Wait for your turn on swing and slides.



At a party:

- ⊕ Wish the host.
- ⊕ Don't mess up somebody's house.

While shopping:

- ⊕ Softly ask your parent for what you want. If refused, don't throw a tantrum.
- ⊕ Be careful, don't touch any breakable item.



On the telephone:

- ⊕ If there are no elders around, don't let the phone ring long, answer it.
- ⊕ Talk softly when someone is speaking on the phone and don't interrupt.



Hygiene:

- ⊕ Brush your teeth twice a day.
- ⊕ Do trim your nails often.
- ⊕ Do not waste water and electricity.
- ⊕ Keep your surroundings and environment clean. It is bad habit to throw things out of the window, car or a balcony.
- ⊕ Make friends having good habits who respect their elders and use good language.



Dear Parents Please ensure the child:

- ⊕ Speaks in English as far as possible.
- ⊕ Read picture books or story books.
 - Suggestive Series : Noddy, Bubbles , Lady Bird.
- ⊕ Listens to stories told by family members and tries to narrate stories.
- ⊕ Draws and colours pictures often.
- ⊕ Helps in small household jobs like watering plants, laying the dining table, making the bed, arranging books etc.
- ⊕ Is allowed to socialize with family, friends and relatives.
- ⊕ Watch TV only for limited hours and limited channels.
- ⊕ Learns to be self - sufficient by learning to cover books, tie shoe laces, comb hair etc.
- ⊕ Plays some outdoor games, goes for morning and evening walk and exercises regularly.
- ⊕ Sits for his/her studies regularly and completes the holiday Home Work and prepares for the forthcoming Cycle Tests.



We share this world with everybody who lives on this planet. Every small act of ours has an effect on this world. We must learn to take care of our world and make it a better place.

Working together,

Principal

Having spent some time in your new class, you have somewhat got used to the pattern of work in class. You have new challenges to meet and targets to achieve! Hope you have a great time with your family and friends during these holidays. Try everything that helps you enjoy this summer and keeps you in good health as well. Here are some activities designed for you to keep you at your creative best while you stay in your homes, beating the summer heat. These are simple activities that you would love to do on your own. Of course, you could ask your parents for some help.

Subject: ENGLISH CORE-301

SECTION- A-READING

1. Read the passage given below and answer the questions that follow:

1. One of the great values of punctuality is that it gives discipline to life. We have to get up in time.

We have to do things at the appointed time. All these entails certain amount of sacrifice. It dispels laziness and removes our 'take-it-easy attitude'. A disciplined person always gets recognition and social acceptance. He is wanted and appreciated. Therefore, punctuality can make us socially acceptable people.

2. Another significant merit of punctuality is that it provides ample time to do our work correctly and properly. Doing things hurriedly or haphazardly can have disastrous consequences. When we do things in time there is every chance that they end up as fine works.

3. The virtue of punctuality is said to be the key to success. Look at the great world leaders who have achieved fame and success. Punctuality was their hallmark. They kept their promises. Punctuality is a virtue that is appreciated by all. Washington once took his secretary to task for being late. The secretary laid the blame upon his watch. Washington reported:

“Then, Sir either you must get a new watch or I must get a new secretary.” People like them are ideals whom we should follow in earnest.

4. When individuals are not punctual, they cause a lot of inconvenience to others. People have to wait for them and waste their valuable time. Want of punctuality reveals want of culture and is discourteous to the person we fail. Unpunctuality invites trouble and worry. History is full of cases which show that lack of punctuality has caused defeat, loss of kingdom and golden opportunities. It is said that Napoleon lost the battle of Waterloo in 1815 because one of his generals came late. Many people lose good opportunities of job or promotion when they reach late for appointment.

5. All of us are not born with the virtue of punctuality. We have to cultivate it painstakingly. Only constant vigil and practice can implant this virtue. It calls for great deal of sacrifice. It calls for courage to root out laziness and the ‘take-it easy attitude’. It demands a disciplined life. That is why very few individuals have the virtue of punctuality. But, know it for certain that it is the surest way to success.

1 Read the given questions and write the answer in about 30-40 words:

- (a) What is the writer’s concern in this passage?
- (b) What would be the consequences of not maintaining punctuality in your work?
- (c) Give some examples to show that lack of punctuality has caused trouble and worry.
- (d) How did the great world leaders achieve fame and success in their life?

1.1 On the basis of your reading of the passage, answer the following:

(a) A disciplined person always gets:

- (i) recognition
- (ii) social acceptance
- (iii) work done correctly and property
- (iv) all of the above

(b) If you are not disciplined, you will:

- (i) Work hurriedly or haphazardly
- (ii) You will be punctual
- (iii) be appreciated by people
- (iv) none of the above
- (d) Give one word for ‘to keep a strict watch’. (From para 5)

2. Read the passage given below and answer the questions that follow:

1. With the next round of the Commonwealth Games coming up this year, sports fans are already speculating about the likely winners from India. While chances appear bright in some

sporting activities, in others the picture appears dismal. Chances of India throwing up a few surprises is always discussed among sports lovers. Most game watchers predict that while India can add more to its medals tally in the shooting events, the chances of improving her status in the swimming category appear slim, despite the potential of creating good swimmers in this country.

2. One sport in the country with tremendous potential but pathetic performance is swimming. The country is flooded with talented swimmers and coaches whose potential is not fully utilised due to red-tapism and bureaucratic hurdles. In spite of being a country full of rivers and canals, swimming has failed to capture the imagination of Indians at large. The Government, on its part, has done very little to boost the sport.

3. All those persons, who are interested in swimming, realise that bad quality of water is one rampant problem with almost 90% of swimming pools. As for schools, it requires exorbitant sums of money and the schools cannot afford it. A handful of the privileged few, who enjoy this luxury, fall in the category of the elite. These are out of reach of the common man.

4. Where do the Indians stand today in comparison with international swimmers? The history of swimming in India has not been too bright. International winners have excellent facilities in terms of coaching, nutrition, tactics, positive attitude and hard work. Paucity of high calibre international coaches is one setback Indians have suffered in all the arenas of sport. Thanks to the petty gains and trivial politics, the good ones are dropped like a hot potato and the blue-eyed ones taken over for participating in international matches. Except for the metros, the country is deprived of good Olympic-size swimming pools.

5. The government and sports organisations will have to make serious efforts to transform the future of Indian sports. Till then, it is a long, long wait.

2. Read the given questions and write the answer in about 30-40 words:

- (a) What do sports fans predict about India's chances in the Commonwealth Games this year?
- b) What factors make for India's potential in swimming? What are the drawbacks?
- (c) What problem do interested swimmers face in India?
- (d) What is India's tally in the international swimming arena?

2.1 On the basis of your reading of the passage, answer the following:

(a) One sport of our country that has tremendous potential is per the passage is:

- (i) Kho-Kho
- (ii) swimming
- (iii) wrestling
- (iv) javelin

(b) International winners have excellent facilities. They have: trained coaches

(ii) nutritional supplements

(iii) the right tactics and hard work

(iv) all of the above

(c) India has the potential of creating good in the country.

(d) Give the synonym of 'inundated'. (From para 2)

SECTION-B-LITERATURE

Q3. Write the summary of the chapter lost spring?

Q4. Write the character sketch from the chapter lost spring & the last lesson?

Q5. write the summary of the poem my mother at sixty-six in stanza wise?

SECTION-C- Writing

Q6. Write a letter to the editor of a national daily newspaper, expressing your opinion and views on the increased human dependence on technology. Right from a small child to an adult, or even an old man, everyone wants gadgets only-cell phone, I-pod, laptop, etc. This also has a negative effect on social relationships. Using your own ideas and the unit, 'Science', write the letter in 100-120 words.

Q7. You are Anand/Arti of 14, Model Town, Delhi. You have seen an advertisement in The Hindu for the post of Chief Chef in a 5-Star Hotel. Apply for the job with complete biodata. Write in 125 – 150 words.

Q8. You are Ramesh/Rani, Sports Secretary, Government Senior Secondary School, Chandigarh. Last Monday an inter-school twenty-over cricket match was played on your school ground. Write a report in 100-125 words on the match.

Q9. Issued by Government Bodies: Draft a notice in about 50 words on behalf of traffic police to inform the residents of Delhi about a diversion in the traffic route due to Independence Day Celebrations at the Red Fort.

Subject: Physics

Answer the following :

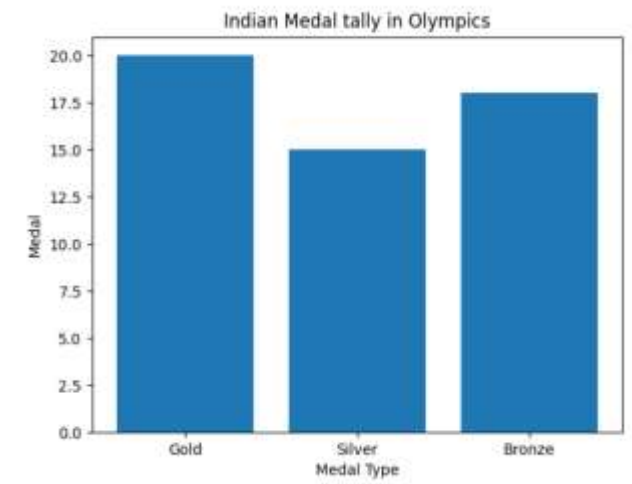
- 1) Write the value of charge on electron.
- 2) What happens to the electric force between two charged objects if the charge on one of them is changed in sign?
- 3) Can a body have a charge of 4.25×10^{-19} C? Justify your answer.
- 4) Write the value of permittivity of free space and its SI unit.
- 5) A charge Q is to be divided on two objects. What will be the new charge on each of them?
- 6) Write the dimensional formula for the quantities as given at the end of chapter 1.
- 7) What will be the dipole moment of an electric dipole having charge $2 \mu\text{C}$ separated by distance 2 mm?
- 8) Obtain the expression for electric potential for 4 charges. Write the formula for n number of charges.

MCQ

- 1) The unit of electric potential energy is
a) Farad b) Joule c) Newton d) Volt
- 2) Which of the following statement is true?
(a) Electrostatic force is a conservative force.
(b) Potential at a point is the work done per unit charge in bringing a charge from any point to infinity.
(c) Electrostatic force is non-conservative
(d) Potential is the product of charge and work.
- 3) Equipotential surfaces
(a) are closer in regions of large electric fields compared to regions of lower electric fields.
(b) will be more crowded near sharp edges of a conductor.
(c) will always be equally spaced.
(d) both (a) and (b) are correct.
- 4) A test charge is moved from lower potential point to a higher potential point. The potential energy of test charge will
(a) remain the same (b) increase (c) decrease (d) become zero
- 5) Dielectric constant for a metal is
(a) zero (b) infinite (c) 1 (d) 10

Subject: Informatics Practices (065)

1. Write a program to plot a histogram from below data with 5 bins and give a suitable title to it.
 $A=[11,21,31,41,51,61,71,81,71,61,51,41,31,21,11]$
2. Plot a histogram of random values of "x" and "y". Define bins=20.
3. Write a python program to plot a line chart based on the given data to depict the changing weekly average temperature in Delhi for four weeks.
 $Week=[1,2,3,4]$
 $Avg_week_temp=[40,42,38,44]$
4. Write Python code to plot a bar chart for India's medal tally as shown below. Also give suitable python statement to save this chart.



Subject: Maths

1. If $\begin{bmatrix} 1 & 1 & x \\ 0 & 2 & 1 \\ 2 & 1 & 0 \end{bmatrix} \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix} = 0$, find x .
2. If $\begin{bmatrix} 2 & 3 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 1 & -3 \\ -2 & 4 \end{bmatrix} = \begin{bmatrix} -4 & 6 \\ -9 & x \end{bmatrix}$, find x .
3. If $A = \begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$, find $A^2 + 5A - 14I$.
4. If $\begin{bmatrix} 5 & -7 \\ -2 & 3 \end{bmatrix} \begin{bmatrix} x & y \\ z & u \end{bmatrix} = \begin{bmatrix} -16 & -6 \\ 7 & 2 \end{bmatrix}$, find x, y, z and u .
5. If $\begin{bmatrix} 2x & 3 \\ -3 & 0 \end{bmatrix} \begin{bmatrix} 1 & 2 \\ -3 & 0 \end{bmatrix} \begin{bmatrix} x \\ 8 \end{bmatrix} = 0$ find x .

6. If $[x \ 1] \begin{bmatrix} 1 & 0 \\ -2 & -3 \end{bmatrix} \begin{bmatrix} x \\ 5 \end{bmatrix} = 0$ find x .

7. If $A = \begin{bmatrix} -1 \\ 2 \\ 3 \end{bmatrix}$ and $B = [-2 \ -1 \ -4]$, verify that $(AB)^T = B^T A^T$.

8. If $\begin{bmatrix} 2x + y & 3y \\ 0 & 4 \end{bmatrix} = \begin{bmatrix} 6 & 0 \\ 6 & 4 \end{bmatrix}$ then find x .

9. If $\begin{bmatrix} x + y \\ x - y \end{bmatrix} = \begin{bmatrix} 2 & 1 \\ 4 & 3 \end{bmatrix} \begin{bmatrix} 1 \\ -2 \end{bmatrix}$, then write the value of (x, y) .

10. If $\begin{bmatrix} a - b & 2a + c \\ 2a - b & 3c + d \end{bmatrix} = \begin{bmatrix} -1 & 5 \\ 0 & 13 \end{bmatrix}$, find the value of a, b, c and d .

11. Find the values of x and y , if $2 \begin{bmatrix} 1 & 3 \\ 0 & x \end{bmatrix} + \begin{bmatrix} y & 0 \\ 1 & 2 \end{bmatrix} = \begin{bmatrix} 5 & 6 \\ 1 & 8 \end{bmatrix}$.

12. If $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \begin{bmatrix} 3 & 1 \\ 2 & 5 \end{bmatrix} = \begin{bmatrix} 7 & 11 \\ k & 23 \end{bmatrix}$, then write the values of k .

13. If $\begin{vmatrix} x - 2 & -3 \\ 3x & 2x \end{vmatrix} = 3$, find the values of x .

14. If $A = \begin{bmatrix} 1 & 2 \\ 4 & 2 \end{bmatrix}$, then show that $|2A| = 4|A|$.

15. Evaluate the determinate $\Delta = \begin{vmatrix} \log_3 512 & \log_4 3 \\ \log_3 8 & \log_4 9 \end{vmatrix}$.

16. If $A = \begin{bmatrix} 2 & 5 \\ 2 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 4 & -3 \\ 2 & 5 \end{bmatrix}$, verify that $|AB| = |A||B|$.

17. If $A = \begin{bmatrix} 1 & 0 & 1 \\ 0 & 1 & 2 \\ 0 & 0 & 4 \end{bmatrix}$, then show that $|3A| = 27|A|$.

Evaluate the following determinant:

18. $\begin{vmatrix} 1 & 3 & 5 \\ 2 & 6 & 10 \\ 31 & 11 & 38 \end{vmatrix}$

$$19. \begin{vmatrix} 6 & -3 & 2 \\ 2 & -1 & 2 \\ -10 & 5 & 2 \end{vmatrix}$$

$$20. \begin{vmatrix} 1 & -3 & 5 \\ -2 & -6 & 10 \\ 31 & -11 & 38 \end{vmatrix}$$

Subject: Chemistry

Q1. Which of the following is not a colligative property?

- (a) Osmotic pressure (b) Elevation of boiling point
(c) Vapour pressure (d) Depression in freezing point

Q2. Which of the following is ideal mixture ?

- (a) Phenol + aniline (b) Benzene + toluene
(c) Chloroform + acetone (d) Ethanol+ acetone

Q3. Calculate the molarity of a solution containing 5g of NaOH in 450 ml.

Q4 .Boiling point of water at 750 mm Hg is 99.63 °C .How much sucrose is to be added to 500 g of water such that it boils at 100°C.

Q5 .Explain the following terms ;

- (a) Non ideal solution along with examples. (b) Azeotropes

Q6. Determine the amount of CaCl₂ (i= 2.47) dissolved in 2.5 litre of water such that its osmotic pressure is 0.75 atm at 27°C.

Q7. Calculate (a) molality (b) molarity and (c) mole fraction of KI if the density of 20% (mass/mass) aqueous KI is 1.202 g ml⁻¹

Q8. Explain the following terms ;

- (a) Isotonic solution (b) Hypotonic solution (c) Hypertonic solutions (d) Anoxia (e) Bends

Subject : Physical Education

☒ Unit:-1 Management of Sporting Events

Complete Assignment book

Complete Classwork book

☒ Record File (Game Book)

Choice from the given list any one game

Basketball, Football, Kabaddi, Kho-Kho, Volleyball, Handball, Hockey, Cricket.

Record file shall include:-

Practical: 1 SAI Fitness tests administration for all items.

Practical: 2 Procedure for Asanas, Benefits & contraindication for any two Asana for each lifestyle disease.

Practical:- 4 Any one game of your choice out of the above Labelled diagram of field & equipment(Rules, Terminologies & Skills)

Note:

1. It is mandatory to do all these activities.
2. Remember to write your name, Roll No, Class and Section on everything you make.
3. For English and Hindi writings and revision of tables, maintain a three – in – one notebook and make sure your parents check it everyday.
4. Compose a good poem in English and Hindi and write it English & Hindi NB (Try to do it yourself,you can take your elders help)
5. Do not bring Holiday Homework on the very first day. Dates to bring Holiday HW of different subjects will be given to you later.