

DELHI PUBLIC SCHOOL NAGBANI, JAMMU- (WEST)

CBSE CODE: 730095

SUMMER HOLIDAYS HOMEWORK

Session:-2023-24

Class IX

**Subject:-English**

1. Prepare a speech with a written record for two minutes on the following topic  
What do you think is the biggest threat to the growth and development of India? Give your views stating the causes and remedies.
2. Recall a current news item you read in the newspaper or saw on television. Give an account of the news item and your opinion on it.
3. Write a self composed poetry on the given topics with minimum 4 stanzas.  
I am blessed  
Music
4. Prepare a chart of 12 Tenses formula and 12 Verb Tenses as shown in the images.  
Form your own sentences.

**12 Verb Tenses in English**

	Past	Present	Future
SIMPLE	I studied English yesterday.	I study English.	I will study English.
CONTINUOUS	I was studying English.	I am studying English	I will be studying English.
PERFECT	I had studied English.	I have studied English.	I will have studied English.
PERFECT CONTINUOUS	I had been studying English.	I have been studying English.	I will have been studying English.

**12 Tenses formula with Example**

Tense	Affirmative	Negative	Interrogative
Present Simple	I have a car.	I don't have a car.	Do I have a car?
Present Continuous	You are playing football now.	You are not playing football now.	Are you playing football now?
Present Perfect	They have been there.	They haven't been there.	Have they been there?
Present Perfect Continuous	I have been living here.	I haven't been living here.	Have they been living here?
Past Simple	I lived in London.	didn't live in London.	Did I live in London?
Past Continuous	I was playing.	I wasn't playing.	Was I playing?
Past perfect	He had worked.	He had not worked.	Had he worked?
Past Perfect Continuous	I had been watching.	I had not been watching.	Had I been watching?
Future Simple	I will come.	I will not come.	Will I come in?
Future Continuous	I will be playing basketball.	I won't be playing basketball.	Will I be playing basketball?
Future Perfect	He will have finished.	He will not have finished.	Will he have finished?
Future Perfect Continuous	We will have been starting.	We will not have been starting.	Will we have been starting?

## Hindi/Urdu

एक डिजिटल लाइब्रेरी (Digital/Online/ Internet Library) तैयार करें। डिजिटल लाइब्रेरी में जैसे texts, images, audio, video, documents या अन्य मीडिया फारमेट का एक संग्रह जिसे नेटवर्क या इंटरनेट के जरिए एक्सेस किया जाता है। इस डिजिटल लाइब्रेरी में निम्नलिखित गतिविधियों को करें-

1. बचेंद्री पाल ( माउंट एवरेस्ट पर चढ़ने वाली प्रथम भारतीय महिला) की जीवनी व उपलब्धियों पर प्रकाश डालें। (चित्र सहित) – सहायता के लिए अपनी पाठ्यपुस्तक का पाठ एवरेस्ट: मेरी शिखर यात्रा को पढ़ें।
2. चन्द्रशेखर वेंकटरामन (CV Raman) एक उत्कृष्ट वैज्ञानिक (चित्र सहित)
  - सीवी रमन के महत्वपूर्ण कार्य
  - सीवी रमन की खोजसहायता के लिए अपनी पाठ्यपुस्तक का पाठ "वैज्ञानिक चेतन के वाहक" को पढ़ें।
3. "मेरा भारत मेरी धरोहर" चित्र सहित अनुच्छेद संकेत बिंदु
  - \*प्राचीन भारत
  - \* स्वतंत्रता पूर्व भारत
  - \*आधुनिक भारत-विकास, तकनीकी, अविष्कार, विश्व में भारत का स्थान ।
4. स्वयं रचित कविता –विषय से संबंधित स्वरचित कविता लिखें
  - अतिथि भगवान समान
  - एक संदेश युवाओं के नाम
- 5.सुबह पाँच बजे उठकर सैर करें व अपने घर के आँगन या छत पर पक्षियों को दाना-पानी डालें। इस कार्य को करते हुए स्वयं का चित्र भी चिपकाएँ।
- 6.अतिथियों का सम्मान घर में आए किसी अतिथि का आपने कैसे स्वागत किया व किस प्रकार आपने उनके साथ समय बिताया, क्या-क्या आपको सीखने को मिला विषय संबंधित एक लघुकथा अपने शब्दों में लिखिए।

## Urdu

گرمی کی چھٹیوں کا کام  
جماعت :- نویں

- 1:- سبق اوس کو دھیان سے پڑھیں اور 5 صفحے اپنی کاپی پر لکھیں۔
  - 2:- پریم چند اور خواجہ حسن نظامی کی حالات زندگی پر نوٹ لکھیں اور یاد کریں۔
  - 3:- مندرجہ ذیل الفاظ کے متضاد الفاظ لکھیے۔  
سر دی، سفید، بیمار، پسند، خوش، وفادار، ظلم، نیک، آرام۔
  - 4:- واحد کی جمع اور جمع کے واحد لکھیے۔  
مکان، احسانات، حکم، شکایت، حق
  - 5:- مذکر کے مونث اور مونث کے مذکر لکھیے۔  
معلم، بیل، دھوبی، خادمہ، مالن، شہزادی، شاعرہ۔
  - 6:- سائنس کے فائدے اور نقصانات پر مضمون لکھیے اور یاد کریں۔
  - 7:- نیچے دیئے گئے محاورات کے جملے بنائیں۔  
پانی پانی ہونا، اپنے پاؤں پر کھڑا ہونا، اونچی دکان چھیکا پکوان،  
آم کے آم گھٹیوں کے دام، تھالی کا بیٹنگن، جس کی لائٹھی اس کی بھینس۔
- ہدایت یہ سارا کام الگ کاپی پر صاف صاف لکھیں۔

## Mathematics

Art Integrated Projects (Research and collect information for Art Integrated Projects to be conducted later).

1. Parallel lines, transversal and angles.
2. To find the area of triangle.
3. To verify that sum of the angles of triangle is 180 degree.
4. To verify that vertically opposite angles are equal.
5. To find the area of circle

Type of triangles on the basis of sides and angles.

Surface area of cube and cuboid formula.

Algebraic identities working model.

Factorization of quadratic polynomial  $(x^2 + 3x + 2)$  using maths art integrated activity.



Worksheet

- . Factorise  $125x^3 - 64y^3$
- . Find the value of  $(x-y)^2 + (X-Y)^2$
- . Find the value of  $m$ , if  $x=4$  is a factor of the polynomial  $x^2 + 3x + m$ .
- . Expand  $(y-3)^2$
- .  $(x-2y-3z)^2$
- . If  $p(x) = x^3 + 3x^2 - 2x + 4$ , then find the value of  $P(2) + (P(-2) - p(0))$
- . If  $x = 9 + 4\sqrt{5}$ , find the value of

$$\frac{x^2 + 1}{x^2}$$

- . Express  $1.32 + 0.35$  as a fraction in the simplest form.
- . Find the value of

$$\frac{4}{(216)^{-2}} - \frac{1}{(256)^{-3}} \quad \frac{1}{3} \quad \frac{1}{4}$$

Simplify

$$\frac{3\sqrt{2}}{\sqrt{6}-\sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}} + \frac{2\sqrt{3}}{\sqrt{6}+2}$$

If  $xa = y$ ,  $yb = z$  and  $zc = x$ , then prove that  $abc = 1$

Prove that

$$\frac{x-1}{x-1+y-1} + \frac{x-1}{x-1-y-1} = \frac{2y^2}{y^2-x^2}$$

Plot the points  $M(4,3), N(4,0), O(0,0), P(0,3)$

Name the figure obtained by joining  $MNOP$

Find the perimeter of the figure.

Find the distance of the point  $(0,-5)$  from the origin.

The path of an aeroplane is given by the equation  $3x - 4y = 12$ .

Represent the path graphically. Also, show that the point  $(-4,-6)$  lies on the graph.



### Science:- Physics

1. A particle is moving in a circle of diameter 5m. Calculate the distance covered and the displacement when it completes 3 revolutions.
2. A body thrown vertically upwards reaches a maximum height 'h'. It then returns to ground. Calculate the distance travelled and the displacement.
3. A body travels a distance of 15m from A to B and then moves a distance of 20m at right angles to AB. Calculate the total distance travelled and the displacement.
4. An object is moving in a circle of radius 'r'. Calculate the distance and displacement when it completes half the circle  
when it completes one full circle.
5. An object travels 16m in 4s and then another 16m in 2s. What is the average speed of the object?
6. Vishnu swims in a 90m long pool. He covers 180m in one minute by swimming from one end to the other and back along the same straight path. Find the average speed and average velocity of Vishnu.
7. In along distance race, the athletics were expected to take four rounds of the track such that the line of finish was same as the line of start. Suppose the length of the track was 200m.  
What is the total distance to be covered by the athletics?  
What is the displacement of the athletics when they touch the finish line?  
Is the motion of the athletics uniform or non-uniform?  
Is the displacement of an athletic and the distance covered by him at the end of the race equal?
8. Starting from a stationary position, Bhuvan paddles his bicycle to attain a velocity of 6m/s in 30s. Then he applies brakes such that the velocity of bicycle comes down to 4m/s in the next 5s. Calculate the acceleration of the bicycle in both the cases.
9. Amit is moving in his car with a velocity of 45km/hr. How much distance will he cover in one minute and  
in one second.
10. The odometer of a car reads 2000 km at the start of a trip and 2400km at the end of the trip. If the trip took 8 hr, calculate the average speed of the car in km/hr and m/s.
11. An electric train is moving with a velocity of 120km/hr. How much distance will it move in 30s?



12. A body is moving with a velocity of  $15\text{m/s}$ . If the motion is uniform, what will be the velocity after  $10\text{s}$ ?

13. A train travels some distance with a speed of  $30\text{km/hr}$  and returns with a speed of  $45\text{km/hr}$ . Calculate the average speed of the train.

14. A train  $100\text{m}$  long moving on a straight level track passes a pole in  $5\text{s}$ . Find the speed of the train  
the time it will take to cross a bridge  $500\text{m}$  long.

15. A car travels along a straight line for first half time with speed  $40\text{km/hr}$  and the second half time with

speed  $60\text{km/hr}$ . Find the average speed of the car.

16. A body starts rolling over a horizontal surface with an initial velocity of  $0.5\text{m/s}$ . Due to friction, its velocity decreases at the rate of  $0.05\text{m/s}^2$ . How much time will it take for the body to stop?

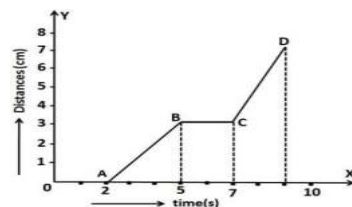
17. A car traveling at  $36\text{km/hr}$  speeds upto  $70\text{km/hr}$  in  $5$  seconds. What is its acceleration? If the same car stops in  $20\text{s}$ , what is the retardation?

18. A scooter acquires a velocity of  $36\text{km/hr}$  in  $10\text{seconds}$  just after the start. It takes  $20$  seconds to stop. Calculate the acceleration in the two cases.

19. On a  $120\text{km}$  track, a train travels the first  $30$  km at a uniform speed of  $30$  km/hr. How fast must the train travel the next  $90$  km so as to average  $60$  km/hr for the entire trip?

20. A train travels at  $60$  km/hr for  $0.52$  hr; at  $30$  km/hr for the next  $0.24$  hr and at  $70$  km/hr for the next  $0.71$  hr. What is the average speed of the train?

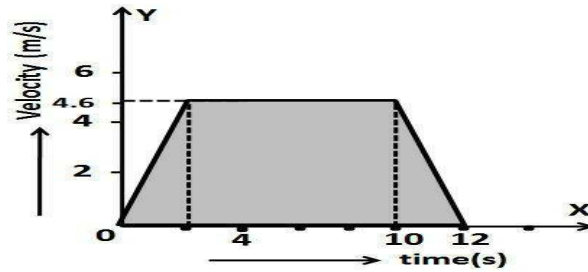
21. The graph in below figure shows the positions of a body at different times. Calculate the speed of the body as it moves from (i) A to B (ii) B to C and (iii) C to D.



22. The velocity time graph of an ascending passenger lift is given below. What is the acceleration of the lift: (i) during the first two seconds (ii) between  $2\text{nd}$  and  $10\text{th}$  second



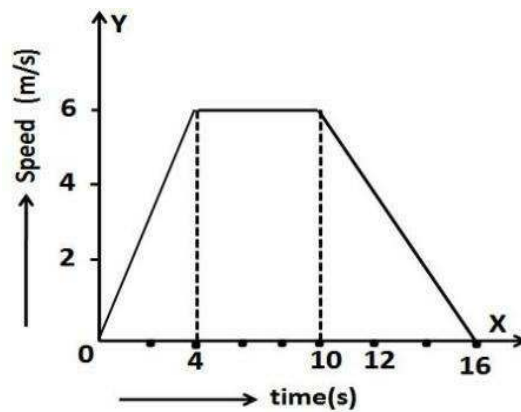
(iii) during the last two seconds.



23. A body is moving uniformly with a velocity of 5m/s. Find graphically the distance travelled by it in 5 seconds.

24. Study the speed-time graph of a body shown in below figure and answer the following questions:

- (a) What type of motion is represented by OA?
- (b) What type of motion is represented by AB?
- (c) What type of motion is represented by BC?
- (d) Calculate the acceleration of the body.
- (e) Calculate the retardation of the body.
- (f) Calculate the distance travelled by the body from A to B.



25. In the above question, calculate (i) distance travelled from O to A (ii) distance travelled from B to C.

(iii) total distance travelled by the body in 16 sec.



MAKE A PRESENTATION ON MOTION AND EXPLAIN THE FOLLOWING POINTS:

1 Motion

- 2 Uniform and Non Uniform Motion
- 3 Speed and Velocity
- 4 Acceleration
- 5 Average and Instantaneous Acceleration
- 6 Equations of Uniformly Accelerated Motion
- 7 Graphical Representation of Motion
- 8 Equation of Motion by Graphical Representation
- 9 Uniform Circular motion.

### Chemistry

1. Prepare 20 MCQs from the chapter "Is Matter around us pure".
2. To study diffusion in our day to day life
3. To study the effect of temperature on the rate of diffusion

ACTIVITY: To dissolve the following substances in water

Tea bag

Food color (solid)

Red ink

Honey

Glycerine

Record the observations during the performance of activity and note the different diffusion rate of these substances in water.

How do the observations change in hot water

3. Give 10 examples of diffusion in everyday life (100 words)
4. Collect information regarding representation of an electronic structure of first ten elements of modern periodic table using ornaments of UT jammu and kashmir in collaboration with Gujarat.(Research and collect information for art integrated project to be conducted later )

### Biology

Write the contribution of following scientist along with their pictures in the study of cell- Robert hooke, purkinji, leeuwenhoek, Robert brown, schleiden and schwann.(Do it manually/Digitally)

### Social studies

Make a project file.

Every student has to compulsorily undertake one project on DISASTER MANAGEMENT.


Main point:

1. Create awareness about different disasters.
2. Consequences and management

Natural Disaster:







(For eg- Earthquake, Volcanic Eruptions, Landslide, Tsunamis, Avalanches, Flood, Heat waves, Cold waves, Wildfires, Droughts, cyclones, Epidemics and Paramedics, Technological and Biological Hazards, Hailstorms etc.

Human caused disasters- Industrial accidents, shootings, act of terrorism and incidents of mass violence etc.

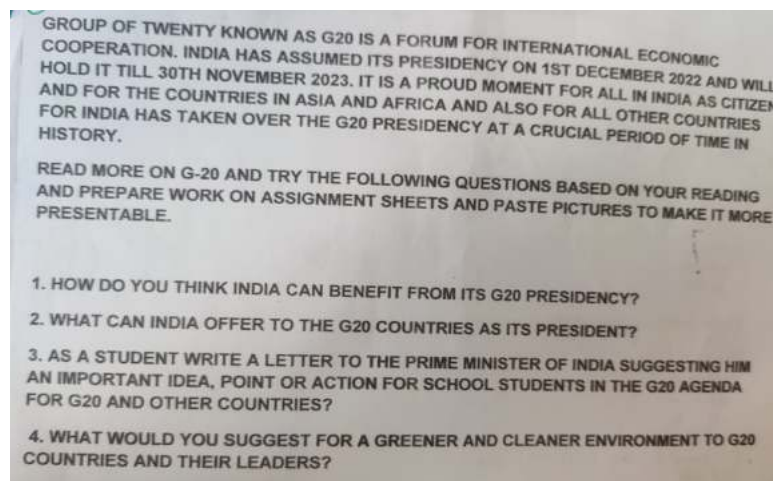
Important Instructions:

Different forms of art may be integrated in the project work.

The projects prepared should be made from eco- friendly products without incurring too much expenditure.

Report should be Handwritten/Digital.

## **G20**



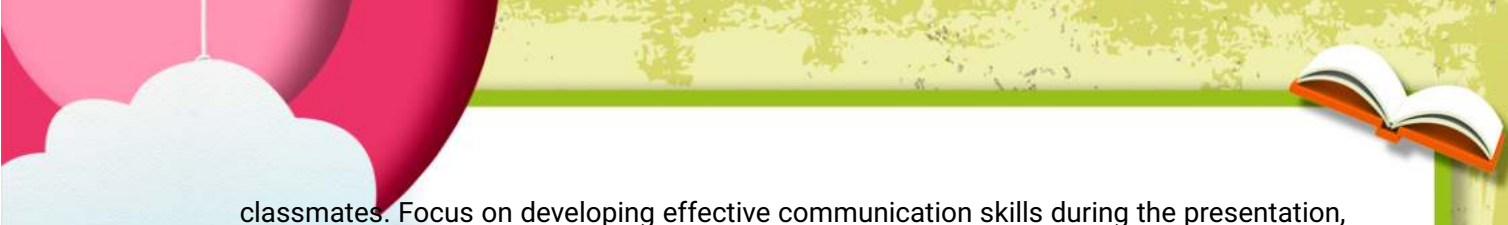
## **Artificial Intelligence**

Q1. Research and write a report on the importance of effective communication skills in various aspects of life. Explain how good communication skills can enhance personal relationships, academic performance, and professional success. Provide examples and real-life scenarios to support your arguments.

Q2. Choose a famous speech delivered by a notable personality (e.g., political leader, activist, or scientist) and analyze its impact. Write a detailed analysis of the speech, highlighting the effective communication techniques used, such as persuasive language, use of rhetorical devices, and engaging delivery. Explain how these techniques contribute to the overall effectiveness of the speech.

Q3. Conduct a mock interview with a family member or friend. Prepare a set of interview questions related to a specific job or career field. Practice conducting the interview and pay attention to your communication skills, including active listening, clarity of speech and effective questioning techniques. After the mock interview, reflect on your performance and identify areas for improvement.

Q4. Choose a topic of interest and prepare a short presentation to deliver to your



classmates. Focus on developing effective communication skills during the presentation, including maintaining eye contact, using appropriate body language, and engaging your audience. Practice your presentation multiple times to enhance your confidence and delivery skills.

Q5. Write a dialogue between two people discussing a current social issue or problem. Pay attention to the structure of the dialogue, the use of appropriate language and tone, and the effective exchange of ideas and opinions. Aim to create a conversation that demonstrates respectful and constructive communication.

Q6. How does perspective communication contribute to effective teamwork and collaboration in a professional setting?

Q7. Read the Chapter Perspective communication and Writing Skills



**HAPPY  
HOLIDAYS!**

