

Holiday Homework: Class-IX

Important Instructions:

- *The holiday homework will be assessed as internal assessment.*
- *All the home assignments provided through WhatsApp must be completed.*

English

Your holiday homework this year is a fine blend of all the aspects of the language. It has been designed to ensure that you learn with fun.

1. Watch any movie like Mary Kom, Three Idiots, Stanley ka Dabba, Taare Zameen Par, Udaan, Makdee, Hichki, I am Kalam, etc. that help inspire young minds. The movie must be age appropriate and parents' acknowledgement is compulsory before you watch. After you complete watching, write a movie review of any two movies you have watched. You may give your movie review the form of a book/album or a photo stand. You may draw/paste suitable picture to make your review look amazing.
2. Prepare a Collage with a catchy name like “**Lockdown Moods**” or “**Nature is Healing**”. You may use pictures in the newspaper/magazine available with you. You may also draw if you can. Write suitable and catchy captions to make your collage look impressive. It shall be explained by you in the class as a part of **multiple assessments** when the school reopens.
3. Make a small notebook/a diary your personal diary. Cover it and decorate it as well as you do to the most favourite thing of yours. Give your diary a cute/funny name as you name your friend/pets. Write a page of the everyday events of your daily life in the diary. Draw/paste pictures to make the entry memorable. Follow the format.
4. Learn the given topics from the links provided and practice them in your English notebook:
 - a. Determiners: <https://www.learncbse.in/cbse-class-10-english-grammar-determiners/>
<https://youtu.be/paZmDFwYB58>
 - b. Tense: <https://www.learncbse.in/cbse-class-10-english-grammar-tenses/>
<https://youtu.be/cYAaGmICm3U>
<https://youtu.be/pXZtRXpGNck>
 - c. Clauses: <https://www.learncbse.in/cbse-class-10-english-grammar-clauses/>
https://youtu.be/_jTydlA2Nno
 - d. Modals: <https://www.learncbse.in/cbse-class-10-english-grammar-modals/>
<https://youtu.be/tkgaFERmSCM>

<https://youtu.be/1o9twUvY7Qo>

e. Voice: <https://www.learnbse.in/cbse-class-10-english-grammar-active-passive-voice/>

https://youtu.be/My7XX_IzH4U

<https://youtu.be/VT5kM7Ugpwg>

f. Reported Speech: <https://www.learnbse.in/cbse-class-10-english-grammar-direct-indirect-speech/>

<https://youtu.be/RMlexWdwTuM>

<https://youtu.be/yML5gg26MUA?list=RDCMUCayJSRMRgQEQo7IzBySi-RQ>

g. Preposition: <https://www.learnbse.in/cbse-class-10-english-grammar-prepositions/>

<https://www.cbsetuts.com/cbse-class-6-english-grammar-correct-uses-prepositions/>

<https://youtu.be/acTcYV9fLCs>

h. Subject – Verb Concord (Agreement): <https://www.learnbse.in/cbse-class-10-english-grammar-subject-verb-concord/>

<https://www.toppr.com/guides/english/verb/subject-verb-concord/>

<https://youtu.be/Hi4F7USqWAY>, https://youtu.be/5_1BRq9iil0

5. Write a descriptive paragraph on the given topics in 150-200 words each:

a. My life at Corona Lockdown

b. My city at lockdown

c. The person I admire the most

Note: It's a part of internal assessment. So, it has to be done diligently and must be produced when asked for submission.

हिंदी

१) प्रेमचंद, मैथलीशरण गुप्त, सूर्यकांत त्रिपाठी, जयशंकर प्रसाद का जीवन परिचय निम्न बिन्दुओं पर लिखिए (जन्म/मृत्यु, रचनाएं, शिक्षा, साहित्यिक योगदान) कार्ड के रूप में बनाना है। [पहले पेज में साहित्यकार का नाम, चित्र तथा अन्दर उपर्युक्त बिन्दुओं को लिखना है]

२) 'कोविड-19' महामारी तथा 'बेटी बचाओ बेटी पढ़ाओ' पर एक-एक नारा कलात्मक ढंग से लिखिए ।

३) शुभकामना सन्देश ३० से ४० शब्दों में कार्ड के रूप में लिखना है।

४) दैनिक (Daily Diary) लिखिए जिसमें आपको अपनी प्रतिदिन की दिनचर्या दिनांक सहित लिखना है (डायरी को सुंदर ढंग से बुकजैकेट के साथ प्रस्तुत कीजिए)

५) ONLINE HOME ASSIGNMENTS का अभ्यास कीजिए ।

६) 'संचयन' से गिल्लू और स्मृति पाठ को पढ़िए और पाठ का सार शिक्षा सहित लिखिए ।

http://ncertbooks.prashanthellina.com/class_9.Hindi.Sanchayan/chapter%201.pdf (गिल्लू)

http://ncertbooks.prashanthellina.com/class_9.Hindi.Sanchayan/chapter%202.pdf (स्मृति)

७) 'स्पर्श' से रहीम के दोहे तथा रैदास के पद याद कीजिए ।

<https://freehomedelivery.net/wp-content/uploads/2016/12/NCERT-Hindi-Class-9-Hindi-Part-1.pdf> (स्पर्श पाठ्यपुस्तक)

Mathematics

PROJECTS

1) MATHEMATICAL SYMBOLS

Make an illustrative project file for the following:

- (i) Search 10 new mathematical symbols from the internet, books, magazines etc.
- (ii) Collect information about their origin, meaning and their use in different areas of mathematics.

AND

2) SURFACE AREAS AND VOLUMES

Prepare Two questions based on each of the below topic.

- (i) Surface area and volume of cubes and cuboids.
- (ii) Surface area and volume of a right circular cylinder.
- (iii) Surface area and volume of a right circular cone.

ASSIGNMENT (To be done in the assignment register)

Topic: Number System

Q1. Find three rational numbers between:

(i) $\frac{1}{3}$ and $\frac{5}{4}$ (ii) $\frac{3}{7}$ and $\frac{2}{7}$

Q2. Find three irrational numbers between

(i) -11 and -12 (ii) $\frac{11}{4}$ and $\frac{13}{5}$
(iii) $\sqrt{2}$ and $\sqrt{3}$

Q3. Express the following in the form $\frac{p}{q}$ Where p, q are integers, $q \neq 0$

(i) 0.013- (ii) 4.103

Q4. Simplify the following:

(i) $(\sqrt{3} + \sqrt{2})(2\sqrt{3} + 5\sqrt{2})$
(ii) $(5\sqrt{3} - 3\sqrt{2})(5\sqrt{3} + 3\sqrt{2})$

Q.5 Rationalize the denominator

(i) $25/(\sqrt{2} + \sqrt{5})$ (ii) $3/(\sqrt{7} - \sqrt{3})$

Q6. Simplify the following:

$$(i) \left(\frac{64}{125}\right)^{-\frac{2}{3}} + \left(\frac{625}{256}\right)^{\frac{1}{4}} + \frac{\sqrt{25}}{\sqrt[3]{64}}$$

$$(ii). \left(\frac{x^a}{x^b}\right)^{a+b} \cdot \left(\frac{x^b}{x^c}\right)^{b+c} \cdot \left(\frac{x^c}{x^a}\right)^{c+a}$$

Q7.Simplify:

$$(i) \frac{2\sqrt{6}}{\sqrt{3}+\sqrt{2}} + \frac{6\sqrt{2}}{\sqrt{6}+\sqrt{3}} - \frac{8\sqrt{3}}{\sqrt{6}+\sqrt{2}}$$

$$(ii) \frac{3}{5-\sqrt{3}} + \frac{2}{5+\sqrt{3}}$$

Q8. Find the value p if

$$(i) 2^{5p} \div 2^p = 5\sqrt{2^{20}}$$

$$(ii) (27)^p = 9 \div 3^p$$

Q9. (a) If $\frac{3+\sqrt{7}}{3-\sqrt{7}} = a + b\sqrt{7}$, find the value of a and b.

$$(b) \text{ If } x = \frac{2-\sqrt{5}}{2+\sqrt{5}} \text{ and } y = \frac{2+\sqrt{5}}{2-\sqrt{5}}, \text{ find } x^2 - y^2$$

Q10. Represent the following numbers on a number line.

$$(i) \sqrt{18} \quad (ii) \sqrt{5.6} \quad (iii) \sqrt{13} \quad (iv) \sqrt{6.7} \quad (v) \sqrt{29}$$

Topic: Heron's Formula

Q1.Find the area of a triangle, two of its sides are 18 cm and 10 cm and the perimeter is 42 cm.

Q2.The sides of a triangle are in the ratio 3:5:7 and its perimeter is 300 m. Find its area.

Q3.The perimeter of a rhombus is 100 m and if one of its diagonal measures 40 m, find its area.

Q4.Find the area of a quadrilateral ABCD in which AB = 24cm, $\angle BAD = 90^\circ$ and $\angle BCD$ forms an equilateral triangle each of whose side measures 26cm. ($\sqrt{3} = 1.73$)

- Q5. A triangle and a parallelogram are on the same base and have the same area. If the sides of the triangle are 15 cm, 14 cm and 13 cm and the parallelogram stands on the base 15 cm, find the height of the parallelogram.
- Q6. Two parallel sides of a trapezium measure 60 cm and 77 cm and other sides are 25 cm and 26 cm long. Find the area of the trapezium.
- Q7. Find the area of an isosceles triangle XYZ in which $XY = ZX = 4$ cm and $YZ = 10$ cm.
- Q8. A triangular park ABC has sides 120 m, 80 m and 50 m. A gardener has to put a fence all around it and also plant grass inside. How much area does he need to plant? Find the cost of fencing it with wire at the rate of rupees 15 per metre, leaving a space 3 m wide for a gate on one side.
- Q9. Mahajan has a vegetable garden in the shape of a rhombus. The length of each side of the garden is 35 m and its diagonal is 42 m long. After growing the vegetables in it, he wants to divide it in six equal parts. Find the area of each part.
- Q10. A field is in the shape of a trapezium whose parallel sides are 50 m and 15 m. If its non-parallel sides are 20 m and 25 m, find the area of trapezium in m^2 .

PHYSICS

- I. Plan to go to a place by a vehicle. Take readings of odometer and speedometer after every 5 minutes till you reach your destination. Record these observations in tabular form; plot graphs between distance-time and speed-time. State whether this motion is uniform or non-uniform.
- II. Answer the following questions:
 1. What is the acceleration of a body moving with uniform velocity?
 2. What does the slope of a distance-time graph give?
 3. Can displacement be zero even when distance is not zero?
Give Example.
 4. How can you get speed of an object from its distance – time graph?
 5. How can you get distance of an object from its speed – time graph?
 6. Can a body have zero velocity and still acceleration? Give example.
 7. Is it possible in straight line motion a particle having zero speed and a non-zero velocity? Explain.
 8. On a 60 km straight road, a bus travels the first 30 km with a uniform speed of 30 kmh^{-1} . How fast must the bus travel the next 30 km so as to have average speed of 40 kmh^{-1} for the entire trip?

9. A driver takes 0.20 seconds to apply the brakes. If he is driving car at a speed of 54 kmh⁻¹ and the brakes cause a deceleration of 6.0 ms⁻². Find the distance travelled by the car after he sees the need to put the brakes.
10. A ball thrown vertically upwards with a speed of 19.6 ms⁻¹ from the top of a tower returns to the earth in 6 seconds. Find the height of the tower. ($g = 9.8 \text{ ms}^{-2}$)
11. A bullet initially moving with a velocity of 20m/s strikes a target and comes to rest after penetrating a distance of 0.01m in the target. Calculate the retardation produced by the target.
12. A body moving in a straight line at 72kmph undergoes an acceleration of 4m/s². Find its speed after 2 seconds.
13. A car a moving at rate of 72km/h and applies brakes which provide a retardation of 5ms⁻²
 - a. How much time does the car takes to stop.
 - b. How much distance does the car cover before coming to rest?
 - c. What would be the stopping distance needed if speed of the car is doubled?
14. A body starts from rest and moves with a uniform acceleration of 5m/s² for 5s and then it moves with a constant velocity for 4s. Later it slows down and comes to rest in 5s. Draw the velocity-time graph for the motion of the body and answer the following questions:
 - a) What is the maximum velocity attained by the body?
 - b) What is the distance travelled during this period of acceleration?
 - c) What is distance travelled when the body was moving with constant velocity?
 - d) What is the retardation of the body while slowing down?
 - e) What is the distance travelled by retarding?
 - f) What is the total distance travelled?

Biology/Chemistry

1. Learn the topics taught.
2. Draw a 3D model to show the plant cell, animal cell and Prokaryotic cell

3. Plan a model to: increase the efficiency of any machine or transport, Reduce the global issues, Save energy, solve health issues and agricultural problems, etc.
4. Choose any topic from your NCERT book and make a video while teaching it.
5. Draw the periodic table, learn the symbols and the atomic number.
6. Write the functions of any 6 cell organelles.
7. Explain the terms: Tyndall effect, sublimation, evaporation, centrifugation.
8. Explain the process of sublimation with the help of diagram and suitable example.
9. How can you separate the mixture of air?
10. Differentiate between solid, liquid and gases.
11. Write two examples in your daily life where you find evaporation is useful

Social Science

Prepare all the maps from the following map list prescribed by CBSE for session 2020-21:

HISTORY:

Chapter-1: The French Revolution Outline Political Map of France

- Bordeaux • Nantes • Paris • Marseilles

Chapter-2: Socialism in Europe and the Russian Revolution Outline Political Map of World

- Major countries of First World War (Central Powers and Allied Powers)

Central Powers - Germany, Austria-Hungary, Turkey (Ottoman Empire)

Allied Powers - France, England, Russia, U.S.A.

Chapter-3: Nazism and Rise of Hitler Outline Political Map of World

- Major countries of Second World War Axis Powers – Germany, Italy, Japan Allied Powers – UK, France, Former USSR, USA

- Territories under German expansion (Nazi Power) Austria, Poland, Czechoslovakia (only Slovakia shown in the map), Denmark, Lithuania, France, Belgium

GEOGRAPHY (Outline Political Map of India)

Chapter -1: India-Size and Location

- India-States with Capitals, Tropic of Cancer, Standard Meridian

Chapter -2: Physical Features of India

- Mountain Ranges: The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western & Eastern Ghats
- Mountain Peaks – K2, Kanchan Junga, Anai Mudi
- Plateau - Deccan Plateau, Chotta Nagpur Plateau, Malwa Plateau
- Coastal Plains - Konkan, Malabar, Coromandal & Northern Circar (Location and Labelling)

Chapter -3: Drainage

- Rivers:
The Himalayan River Systems-The Indus, The Ganges and The Satluj
The Peninsular rivers-The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi
- Lakes: Wular, Pulicat, Sambhar, Chilika

Chapter - 4: Climate

- Areas receiving rainfall less than 20 cm and over 400 cm

Chapter - 5: Natural Vegetation and Wild Life

- Vegetation Type: Tropical Evergreen Forest, Tropical Deciduous Forest, Thorn Forest, Montane Forests and Mangrove
- National Parks: Corbett, Kaziranga, Ranthambor, Shivpuri, Kanha, Simlipal & Manas
- Bird Sanctuaries: Bharatpur and Ranganthitto
- Wild Life Sanctuaries: Sariska, Mudumalai, Rajaji, Dachigam

Chapter - 6: Population

- The state having highest and lowest density of population

- The state having highest and lowest sex ratio
- Largest and smallest state according to area

Prepare a project on any one of the following disasters:

Earthquake

Volcanic eruption

Drought

Flood

Landslide

Any human induced disaster like road accident, fire, bombing etc.

Download e-book from the link provided, read the following chapters and frame 8 to 10 questions within the text on your own along with the answers:

Link: <http://ncert.nic.in/textbook/textbook.htm?iess2=1-4>

History- Chapter 1

Economics- Chapter-1

Democratic Politics- Chapter 1

ART & CRAFT

ART- Draw any two pencil sketch of your choice and give light & shadow effect on them. Draw two examples of each :-

- (a) One vanishing point perspective
- (b) Two vanishing point perspective
- (C) Three vanishing point perspective.

Make any nature scene or land scape .(medium – poster colour ,water colour, Or collage work.

CRAFT- Make any two craft by using waste plastic bottles or milk powder box or other waste materials. Or make any two wall hanging craft for home decor.

Example- Newspaper jar, broom from plastic bottle, wall hanging paper flower holder etc.

Note- For craft making ideas please find in YouTube.

Music

1. Learn these Notations/Alankar daily 3 to 5 times

Sa, Re, Ga, Ma, Pa, Dha, Ni, Sa

Sa, Ni, Dha, Pa, Ma, Ga, Re, Sa

SaReGa, ReGaMa, GaMaPa, MaPaDha, PaDhaNi, DhaNiSa

SaNiDha, NiDhaPa, DhaPaMa, PaMaGa, MaGaRe, GaReSa

SaReGaMa, ReGaMaPa, GaMaPaDha, MaPaDhaNi, PaDhaNSa

SaNiDhaPa, NiDhaPaMa, DhaPaMaGa, PaMaGaRe, MaGaReSa

SaReGaMaPa, ReGaMaPaDha, GaMaPaDhaNi, MaPaDhaNiSa

SaNiDhaPaMa, NiDhaPaMaGa, DhaPaMaGaRe, PaMaGaReSa

SaReGaMaPaDha, ReGaMaPaDhaNi, GaMaPaDhaNiSa

SaNiDhaPaMaGa, NiDhaPaMaGare, DhaPaMaGaReSa

2. Learn all Prayers from your old music notebook.

3. Make one PPT about the contribution of Indian musicians in Indian Music.