

Holiday Homework  
Class- 9  
Subject- Social science

Title project: Know about our country India on the following parameters-

- In Historical terms
  - In Geographical terms
  - In political terms
  - Cultural terms
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- Instructions: A Project should be done in the subject notebook.
  - As a source of project students can take information from NCERT books, newspapers, magazines etc.
  - For enrichment of the Project, the students can use Maps, Pictures etc.

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**English**

1. Solve the two error editing exercises given below in English Grammar Notebook.  
**The below story has one error in each line. Find the error and write the correction.**

A. Once upon a time, their lived a very poor girl who has very big dreams but didn't work hard enough too achieve it. One day she had enough milk to sells in the market so she though if she could sell the milk she should earn enough money and move into the city and start an new job there. So she pour the milk in a large can and carried it in her head to a nearby market. While going to the market she started to dreaming about how she would earn a lots of money and make all her dream come true and if someone ask her for money, she would scold them and sent them back. While thinking so, she jerk her head so fast that the milk can keep on her head fall down and all the milks got spilled on the ground.

B.	<b>Incorrect</b>	<b>Correct</b>
For most than four exhausting years, the Polish-born Marie Curie and her husband, Pierre, work in a large dilapidated wood shed near there Paris lodgings. It was here – on the September night in 1902 which they finally discovered the radioactive element that they named 'radium' for the Latin	most ..... ..... ..... ..... .....	more ..... ..... ..... ..... .....

- word radius, meaning an 'ray'. .....  
Radium providing the first effective treatment .....  
for more types of cancer. ....
2. Read the chapter- The Little Girl (Beehive) and make a flowchart of the events that unfold in the story. Points to be covered:
- About the author
  - Theme and Setting
  - Character sketch of the main characters
  - Which character did you like the most and why?
  - Learning or message from the Chapter.
- (To be written in English Literature Notebook)
3. Write a letter to the Editor of T.O.I. , Lucknow about a problem concerning you or your locality. To be written in English Grammar Notebook.
4. Write your own character sketch using 5 or more adjectives and instances/incidents supporting these adjectives. To be written in 150-200 words in English Grammar notebook.
5. Sit with your mother/father/grandparents and write a story of their childhood in your own words in English Grammar Notebook. Name the story creatively.
6. Write 30 most commonly used Poetic devices along with their definition and example in your English Grammar Notebook.

## ग्रीष्मावकाश कार्य

### कक्षा --9 F

#### परियोजना कार्य

- मानसरोवर पुस्तक पढ़ कर प्रेमचंद की किसी एक कहानी की समीक्षा कीजिए ।
- कबीर व रहीम के ऐसे दोहों को संकलित कीजिए जिसमें सद्गुणों और दुर्गुणों का उल्लेख हो ।
- कोई एक शिक्षाप्रद कहानी अपने शब्दों में लिखिए ।

## ग्रीष्मावकाश कार्य

### कक्षा-नवम (A,B,C,D)

#### विषय- हिन्दी

#### परियोजना कार्य

- रहीम के दोहे लिखकर अर्थ लिखो ।
- एक शिक्षाप्रद कहानी लिखो ।
- पांच पहेली और उनके उत्तर भी लिखो ।
- राम मंदिर पर स्वरचित कविता लिखो ।
- ग्लोबल वार्मिंग पर निबन्ध सचित्र

नोट- फाइल , पंच पेपर , कवर रंग- वर्ग-अ- लाल, वर्ग-ब-पीला , वर्ग-स-नीला , वर्ग-द -हरा

**ग्रीष्मावकाश गृहकार्य**  
**कक्षा 9 (इ)**

1-कबीर के 4 दोहे लिखकर प्रसंग सहित उनका भावार्थ भी लिखिए।

2-निम्नलिखित में से किसी एक विषय को आधार मानकर सचित्र कहानी लिखिए।

-प्रायश्चित

-जहाँ चाह वहाँ राह

-एकता में बल

3-किसी एक बिंदु को आधार मानकर स्वरचित कविता लिखिए।

-मेरा भारत महान

-बेटियाँ

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**Summer Vacation Assignment**  
**Class-IX**  
**Subject-Science**  
( PHYSICS)

1 Make a physics formula notebook including all the formulas done, so far and keep on adding formulas into it as we cover rest of the chapters in this session. ( A4 size paper)

2. Give examples showing applicability of the laws of physics in everyday life situations. Make a project file on how physics is involved in sports, dance and various musical instruments.

(CHEMISTRY)

1. Identify 10 types of mixtures around you and also identify their types (Homogeneous/ Heterogeneous).

2. Read the process of Centrifugation and answer the following

(i) What is Milk?

(ii) What kind of mixture it is?

(iii) How can its components be separated?

3. Carry out an activity at home to observe the separation of components of milk and write an observation and conclusion of the same activity.

4. Draw a flow sheet diagram showing various steps in purifying water for city supply.

5. Learn atomic number from 1 to 20.

6. Revise Chapter one.

(Biology)

1. Write a biography of a Nobel prized scientist related to biology work.
2. Do the activity of osmosis by using resins/eggs or by preparing potato osmoscope with the help of OLabs ([www.olabs.edu.in](http://www.olabs.edu.in)) and click the photographs or make a short video of 2

# Holiday's Homework for Class - 9

## ( MATHEMATICS )

### Activity :

- Construct a Square Root Spiral .
- Represent  $\sqrt{10}$  and  $\sqrt{5}$  on number line.
- Verify the Algebraic Identity  $(a+b)^2 = a^2 + 2ab+b^2$  using grid paper.
- Represent  $\sqrt{6.3}$  geometrically

**Project:** Select any one topic out of the following topics and present under the following heads

- Introduction of the topic
- Relevance/objective of the topic
- Different contains (sub topic) with appropriate Examples
- Application
- Conclusions
- Bibliography

Topics are as follows

- Euclid Geometry
- Probability and Chances
- Statistics
- Number system
- Vaidic maths
- Maths and Architecture

### Application:

1. Write 10 rational numbers between  $\frac{2}{3}$  and  $\frac{3}{5}$
2. Simplify:  $(4 + \sqrt{3})(4 - \sqrt{3})$
3. Rationalise the denominator of  $\frac{1}{\sqrt{3} - \sqrt{2}}$ .
4. Express the following as a fraction in the simplest form.  
(i)  $2.\underline{23}$  (ii)  $3.\underline{123}$  (iii)  $1.\underline{3}$
5. Simplify  $11.\underline{4565} \div 2.\underline{67}$
6. Write 5 irrational numbers between  $\frac{5}{7}$  and  $\frac{8}{11}$
7. Find remainder if  $p(x)$  is divided by  $g(x)$   
(i)  $P(x) = x^3 + 4x^2 - 7x + 3$  ;  $g(x) = x + 2$   
(ii)  $P(x) = x^3 - 7x^2 + 3x + 3$  ;  $g(x) = x - 1$

### HOTS

8. If  $x = (2 + \sqrt{3})$ , find the value of (i)  $x + \frac{1}{x}$  (ii)  $x^2 + \frac{1}{x^2}$
9. Factorise:  $x^4 - 3x^2y^2 + y^4$
10. Show that:  $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$

# MULTIPLE CHOICE QUESTIONS

1. Which one is not a polynomial

(a)  $4x^2 + 2x - 1$

(b)  $y + \frac{3}{y}$

(c)  $x^3 - 1$

(d)  $y^2 + 5y + 1$

2. The polynomial  $px^2 + qx + rx^4 + 5$  is of type

(a) linear

(b) quadratic

(c) cubic

(d) Biquadratic

3. Identify the polynomial

(a)  $x^{-2} + x^{-1} + 5$

(b)  $x^2 + 5\sqrt{x} + 7$

(c)  $\frac{1}{x^3} + 7$

(d)  $3x^2 + 7$

4. The zero of the polynomial  $p(x) = 2x + 5$  is

(a) 2

(b) 5

(c)  $\frac{2}{5}$

(d)  $-\frac{5}{2}$

(d)  $-\frac{5}{2}$

(d)  $-\frac{5}{2}$

5. The number of zeros of  $x^2 + 4x + 2$

(a) 1

(b) 2

(c) 3

(d) none of these

6. The polynomial of type  $ax^2 + bx + c$ ,  $a = 0$  is of type

(a) linear

(b) quadratic

(c) cubic

(d) Biquadratic

7. The value of  $k$ , if  $(x - 1)$  is a factor of  $4x^3 + 3x^2 - 4x + k$ , is

(a) 1

(b) 2

(c) -3

(d) 3

8. The degree of polynomial  $5x + \sqrt{x^2 - 4x + 4}$

(a) 0

(b) 2

(c) 1

(d) It is not a polynomial

Try to do the following questions

Try following questions also.

9. If  $3 + 5 - 8 = 0$ , then the value of  $(3)^3 + (5)^3 - (8)^3$  is { (Hints if  $a+b+c=0$ , then  $(a)^3 + (b)^3 + (c)^3 = 3abc$  }

- (a) 260
- (b) -360
- (c) -160
- (d) 160

10. If  $x + y = 3$ ,  $x^2 + y^2 = 5$  then  $xy$  is { (Hints  $(a + b)^2 = a^2 + b^2 + 2ab$  }

- (a) 1
- (b) 3
- (c) 2
- (d) 5

11. If  $x + 2$  is a factor of  $x^3 - 2ax^2 + 16$ , then value of  $a$  is

- (a) 3
- (b) 1
- (c) 4
- (d) 2

12. If one of the factors of  $x^2 + x - 20$  is  $(x + 5)$ . Find the other (a)  $x - 4$

- (b)  $x + 2$
- (c)  $x + 4$
- (d)  $x - 5$

13. Find whether  $x^n + y^n$  is divisible by  $x - y$  ( $y \neq 0$ )

- (a) True
- (b) False

14. The remainder when  $x^{101} - 1$  is divided by  $x - 1$  is zero.

- (a) True
- (b) False

15. Infinite irrational numbers can be inserted between two rational numbers.

- (a) True
- (b) False

----- END -----

## Holiday Homework

Class IX

1. Write articles on given topics - (100-150)
  - a. Online Shopping
  - b. Easy payment options
  - c. Rainwater Harvesting
  - d. Role of Advertisements in Promoting Tourism
  - e. Misuse of Mobile Phones
2. Read novel *Coolie* or *Untouchable* <sup>written</sup> by Mulk Raj Anand.
3. Plan a get together party to be held at your place. Make a list of things you will require using determiners.  
Example:
  - I called up all my family members and relatives
  - Some of them didn't come.
  - My mother bought few packets of chips for us.

Click pictures and paste them. Now, write a short story in not more than 120 words describing fun you had at the party.