



# R.E.D. GROUP OF SCHOOLS

## Summer Holiday Home Work

Class : IX (Session : 2018-19)

### ENGLISH

- Your holiday H.W this summer is a fun mix of all aspects of English language. Make a project / assignment about how beautifully and with fun you can learn English language. Do this H.W. in the folder using A4 size colored sheets and present it beautifully.
- Write a brief character sketch of the "Ideal of my life ". Paste pictures as much as you can related to this to make it more presentable. Also tell about the qualities you would like to learn from him/ her.
- Collect articles, news reports, scope of English as Academic, crosswords, recent surveys done in the field of English Language. Prepare it and present it on A 4 size sheets.
- Write all the literary devices that you have been taught in your class and arrange theme beautifully and gracefully on the chart. You could also decorate it in any way you can, so that it can be easily learnt.
- Write the Biographies of the 4 famous poets, who have done commendable work in the field of literature. You could also paste the pictures and the habits they have. Make your project/ Assignment presentable and best.
- Write 10 internal questions from the chapter that you have been taught till now, also learn them (on A4 sheets)  
(1-3 Chapter- Moments)  
( 1-2 Poems - Beehive)

### HINDI

- याद करने का कार्य—  
क्षितिज पाठ – दो बैलों की कथा, लहासा की ओर, साखियाँ और सबद, वाख।  
कृतिका पाठ – इस जल प्रलय में।  
व्याकरण – वाक्य (रचना के आधार पर), उपसर्ग, प्रत्यय और समास।
- आप किसी स्थान पर घूमने गए, वहाँ की यादों को आधार बनाकर एक यात्रा वृत्तांत लिखिए।
- आपने छुट्टियों में कौन-सी पुस्तक पढ़ी? उस पुस्तक में आपको क्या अच्छा लगा? लिखिए।
- अपने माता-पिता से आजकल बुजुर्गों की सेवा भावना में आई कमी पर चर्चा करें एवं लिखें।

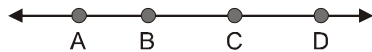
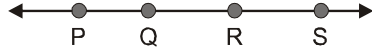
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- आपके माता-पिता की कौन-सी विशेषताएँ आपको अच्छी लगती हैं? लिखिए।
- आप अपने दादा-दादी का सहारा किस प्रकार बनोगे?
- 'माँ' शीर्षक को आधार बनाकर एक कविता लिखो।

### MATHS

#### Instructions:

- \* Construct the figures / diagrams using pencil and ruler/scale.
- \* Test will be held after holidays from the question given in holidays home work.

- Insert four rational numbers between  $\frac{5}{4}$  and  $\frac{5}{6}$ .
- Insert four irrational numbers between  $3\sqrt{2}$  and  $2\sqrt{3}$ .
- Represent the numbers  $-1.5$  and  $2 + \sqrt{2}$  on the number line in the same diagram.
- If  $a$  and  $b$  are rational numbers and  $\frac{6}{3\sqrt{2}-2\sqrt{3}} = a\sqrt{2}-b\sqrt{3}$ , then find the values of  $a$  and  $b$ .
- Arrange the following numbers in ascending order:  
 $\sqrt{2}, \sqrt[3]{4}, \sqrt[4]{5}, \sqrt[4]{3}$
- In the adjoining figure, If  $AB = CD$ , then prove that  $AC = BD$ .  

- In the adjoining figure, if  $PQ = QR = RS$  then prove that  $PQ = \frac{1}{3}PS$ .  

- Why is axiom 5, in the list of Euclid's axioms, considered a universal truth?
- It is known that  $x + y = 10$  and  $x = z$ . Show that  $y + z = 10$ .
- 10 Fill in the blanks:**  
(a) Euclid's 4th axiom "Things which coincide with one another are equal to one another" seems to say that if two things are identical, then they are .....in all respects.

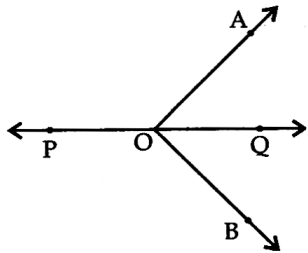
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- (b) Euclid's 5th axiom "The whole is greater than the part" gives us the definition of "....."
- (c) The statements which are 'obvious universal truths' are called ..... or .....
- (e) The assumptions which are specifically linked to geometry are called .....

**11. True/False: (Justify your answer)**

- (a) In geometry, we take a point, a line and a plane as undefined terms.
- (b) The Euclidean geometry is valid only for figures in a plane.
- (c) The whole is smaller than the part.
- (d) The boundaries of the solids are curves.
12. In the adjoining figure, OQ bisects  $\angle AOB$ . OP is a ray opposite to ray OQ. Prove that  $\angle POA = \angle POB$ .



13. Without plotting the points indicate the quadrant they will lie, if:
- (a) Ordinate is 5 and abscissa is -3
- (b) Abscissa is -5 and ordinate is -3
- (c) Abscissa is -5 and ordinate is 3
- (d) Ordinate is 5 and abscissa is 3
14. The perpendicular distance of a point from the  $x$ -axis is 2 units and the perpendicular distance from the  $y$ -axis is 3 units. Write the coordinates of the point if it lies in:
- (a) I quadrant                      (b) II quadrant
- (c) III quadrant                    (d) IV quadrant
15. Plot the points  $A(1, 2)$ ,  $B(2, -1)$  and  $C(-1, 4)$  and check whether they are collinear or not.

16. Plot the points  $A(1, 2)$ ,  $B(-4, 2)$ ,  $C(-4, 1)$  and  $D(1, -1)$ . What kind of quadrilateral is  $ABCD$ ? Also find the area of the quadrilateral  $ABCD$ .
17. Factorise  $a^7 - ab^6$ .
18. If  $x + \frac{1}{x} = 7$ , then find the value of  $x^3 + \frac{1}{x^3}$ .
19. What is the remainder when  $x^3 - 2x^2 + x + 1$  is divided by  $(x - 1)$ ?
20. Factorise:  $x^2 + 3\sqrt{3}x + 6$ .
21. What is the maximum number of terms in a polynomial of degree 10?
22. Find  $\alpha$  and  $\beta$ , if  $(x + 1)$  and  $(x + 2)$  are factors of  $x^3 + 3x^2 - 2\alpha x + \beta$ .
23. If the temperature of a liquid can be measured in Kelvin units as  $x$  K or in Fahrenheit units as  $^{\circ}\text{F}$ . The relation between the two systems of measurement of temperature is given by the linear equation  $\frac{9}{5}(x - 273) + 32$ .
- (i) Find the temperature of the liquid in Fahrenheit if the temperature of the body is 313 K.
- (ii) If the temperature is 158 $^{\circ}\text{F}$ , then find the temperature in Kelvin.
24. By means of graph verify that the point  $(1, -1)$  is a solution of the equation  $3x + 2y - 1 = 0$ .
25. Give the geometrical representation of  $4(y - 3) = 2y + 5$  as an equation: (i) in one variable (ii) in two variables.
26. The total monthly expenditure of a household consists of a fixed expenditure on house rent as Rs. 500 and the expenditure on rice which is available at Rs. 50 per kg. Write a linear equation assuming the consumption of rice to be  $x$  kg per month and total expenditure of the household per month as Rs.  $y$ . Draw the graph of the equation.
27. The cost of a box is Rs. 25. Taking  $x$  as the number of boxes and  $y$  the total cost in rupees, construct a linear equation. Also, draw the graph.
28. Make a project on "Careers in Maths" and do the following:
- a) List the educational courses related to Mathematics field add educational criteria and other requirements also for these courses.
- b) List top 5 colleges and universities related to the course of your interest.

**Note** : Make the project activity of Lines & Angles on A4 Size Sheet.

### **SCIENCE**

1. Pre-Reading of Ch - 9 & 10 (Write difficult word meaning)
2. Learn Ch- 2 & 6 (Matter in Our Surrounding and Tissue) for fortnight test.
3. Make any one working model on the topic Energy Conservation.
4. Make a project on "Careers in Science" and do the following:
  - a) List the educational courses related to Science field add educational criteria and other requirements also for these courses.
  - b) List top 5 colleges and universities related to the course of your interest.

### **SOCIAL SCI.**

1. Collect the picture of the various members of the constituent assembly and write about their contribution in brief.
2. Collect the information about the 'Silk Route'.
3. Find out the 10 internal questions of one-marks from Geography.
4. Make a collage on 'Election'/ People As Resource.
5. Find out the 20 international news and paste them in the scrap book.
6. Grow 5 sapling plants and observe them, prepare a report and come with photographs.
7. Make a project on "Careers in Social Science" and do the following:
  - a) List the educational courses related to Social Science field add educational criteria and other requirements also for these courses.
  - b) List top 5 colleges and universities related to the course of your interest.

**Note : All work will be done in one scrap book.**

### **COMPUTER**

Note: The holiday homework is to be done on A4 size paper. Proper filing is to be done.

1. Solve revision assignment.
2. Learn CH-1,2,3,6
3. Make presentation on the topics and submit in printed form on A4 size paper:  
Gandhi House Students: Social networking - a boon or a bane  
Raman House Students: Impact of advertisement on children  
Subhash House Students: Are examinations necessary?  
Tagore House Students: Should computer be a compulsory subject?
4. Type any one story in Writer and apply bold, underline, colored text, font style, header and footer, inserting page number and paragraph alignment options in the document. Submit this work in printed form on A4 size paper.
5. Make any one working model based on the use of Computer.