



**S.L.S D.A.V Public School, Mausam Vihar, Delhi-51**  
**ISO : 9001: 2008**  
**Holiday Homework, 2015-16**  
**Class IX**

TASK	Interdisciplinary Project based on Novel
TOPIC	Life of Pi by Yann Martel
Class	IX
What is an interdisciplinary project	An interdisciplinary project involves the combination of two or more disciplines.

General guidelines-

1. A single report file is to be made for all the subjects.
2. The first page of the report file will have the following description

Name of group members	
Class & section	
Roll no.	
Session	

Subject	Remarks to be filled by teacher	Teacher's signature
Mathematics		
Science		
Social Science		

3. The second page of the report file will have Acknowledgement. Please mention the list of websites, books referred etc.
4. The project report will be assessed under the following parameters.

RELEVANCE	TEAMWORK	EXPRESSION OF IDEAS	CONTENT	PRESENTATION
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5. Arrange the A4 size sheets of the respective subject in the order given below.

Subject	Description	Specific guidelines
Mathematics	<p>'Life of Pi' talks about various stages of life of a boy names Pi. He struggles throughout his life and values its importance. Pi was stuck in a boat. He later made some changes in the boat to be able to survive. Design a life saver boat for yourself and identify the number of line segments and angles used for making the boat. Also identify the relation between angles made by parallel and non parallel lines.</p> <p>Prepare a questionnaire of 5 questions to survey 5 people in your locality regarding their</p>	<ul style="list-style-type: none"> <li>• Use A4 size sheets.</li> <li>• Mark the angles neatly.</li> <li>• The questions should be specific related to subject and topic.</li> <li>• The questionnaire should have all details of the people surveyed.</li> <li>• Draw the pie chart neatly</li> </ul>

	daily routine and application of mathematical concepts learnt in their school days in their routine. Collect the data, organize it in form of a frequency distribution table and represent it with the help of a pie chart.	
Science	<p>According to Charles Darwin “It is not the strongest or the most intelligent who will survive but those who can best manage change.”</p> <p>(a) Keeping the above quote in mind, explain how Pi struggles to survive through seemingly insurmountable odds.</p> <p><b>PREPARE A REPORT BY USING THE FOLLOWING KEYNOTES:</b></p> <p>I. Floatation  II. Sound(Whistle)  III. Use of marine animals as food  IV. Island covered with algae</p>	<ul style="list-style-type: none"> <li>• Use A4 size sheets.</li> <li>• Handwritten project</li> <li>• Make it attractive with pictorial illustrations</li> <li>• Presentation should be eye-catching</li> </ul>
Social Science	<p>Pie could survive due to his disaster management skills. Imagine yourself as the protagonist in one of the situations below and emerge as a survivor.</p> <p>Prepare a disaster management report (roll no wise as discussed in class) on the given situations.</p> <p>1. Earthquake  2. Flood  3. Fire  4. Terrorist Attack  5. Epidemics(Dengue and Chikungunia)</p>	<ul style="list-style-type: none"> <li>• Use A3 size sheets FOR COLLAGE.</li> <li>• Use A4 size sheets FOR PROJECT.</li> <li>• Handwritten project.</li> <li>• Slogans, drawing pictures, sketching or drawing cartoon strips can also be included.</li> </ul>

**PSA ASSIGNMENT  
QUANTITATIVE APTITUDE**

1. A, B, C, D and E play a game of cards. A says to B, "If you give me three cards, you will have as many as E has and if I give you three cards, you will have as many as D has." A and B together have 10 cards more than what D and E together have. If B has two cards more than what C has and the total number of cards be 133, how many cards does B have?  
a) 22            b) 23            c) 25            d) 35
2. There are deer and peacocks in a zoo. By counting heads they are 80. The number of their legs is 200. How many peacocks are there?  
a) 20            b) 30            c) 50            d) 60

3. The sum of the ages of five children born at intervals of three years each is 50 years. What is the age of the middle child?  
 A. 8 yrs                      B. 10yrs                      C. 6yrs                      D. 7yrs
4. The sum of six consecutive even numbers of set-A is 402. What is the sum of another set-B of four consecutive numbers whose lowest number is 15 less than double the lowest number of set- A?  
 (A) 444                      (B) 442                      (C) 440                      (D) 446
5. Mr. Gupta says to his friend with pointing towards Mr Arora “His mother and my mother are daughter – mother.” How are Mr. Gupta and Arora related?  
 a) Paternal Uncle – Nephew                      b) Maternal Uncle – Nephew  
 c) Father – son                      d) Father-in-law – son-in-law
6. Ramesh had gone to ABC Company in search of employment. In the written test, he was asked to answer certain data-based questions. You need to help him in arriving at the correct answers by using the data provided in the box below and answer the questions.

Level	Number of employees			Additional information
	Men	Women	Total	
I	16% of total men	28% of total women		
II	18% of total men			Women to men are 2 : 3 at level II
III			25% of total employees	
IV		18% of total women		
V	1/5 <sup>th</sup> of total men	60% of the men at level V		
<b>Total</b>			1500	The ratio of men to women in the organization is 17:13.

- (a) What is the number of men working at level 3?  
 (A) 136                      (B) 228                      (C) 253                      (D) 163
- (b) What is the number of women working at level 5?  
 (A) 147                      (B) 182                      (C) 117                      (D) 102
- (c) What percentage of the total employees in the organization are men who work at level I?  
 (A) 9 %                      (B) 13 %                      (C) 18 %                      (D) 22 %
- (d) What is the total number of women working at levels 2 and 4?  
 (A) 81                      (B) 118                      (C) 219                      (D) 264

7.If the resistance total in a series circuit doubles, current will:

- (a). be the same
- (b). be doubled
- (c). reduce source voltage
- (d). be halved

8. Shown here is an autorickshaw meter. To calculate the fare, the meter uses one of the following. Which one could it be?



- (a) The milestones on the road                      (b) The amount of petrol used up.
- (c) The maximum speed reached                      (d) The number of wheels rotations.

9. In a deep valley on Earth, a person shouting will hear an echo as the sound is reflected back off the surrounding mountains. In a similar valley on the Moon, no echo will be heard. This is because

- (a) the gravitational pull on the moon is too low                      (b) the temperature on moon is too low
- (c) there is no air on the moon
- (d) the mountains on the moon cannot allow the sound to travel through.

10. Which of the following is true about static charges?

- (a) They accumulate mostly on poor conductors of electricity.
- (b) They accumulate mostly on good conductors of electricity
- (c) They accumulate both on good and poor conductors of electricity.
- (d) They do not accumulate on surfaces, but are found in the air during winter.

11. If you're a fitness walker, there is no need for a commute to a health club. Your neighborhood can be your health club. You don't need a lot of fancy equipment to get a good workout either. All you need is a well-designed pair of athletic shoes, poorly designed athletic shoes can cause major foot injuries.

This paragraph best supports the statement that

- (a).Fitness walking is a better form of exercise than weight lifting.
- (b).A membership in a health club is a poor investment.
- (c) Walking outdoors provides a better workout than walking indoors.
- (d).Fitness walking is a convenient and valuable form of exercise.

12. Four jars with different liquids are taken. An iron nail is dropped in each jar. The time taken for the nail to sink to the bottom is noted down. In which jar will the nail take the LEAST time to reach the bottom?

- (a) Cough syrup
- (b) Honey
- (c) Water
- (d) oil

13. Suraj had a bottle of soft drink. As soon as he opened the bottle, the liquid in the bottle started bubbling and gas was released. Which of these can be concluded about gases based on this observation?

- (a)some gases have weight.
- (b)Some gases are colourless.
- (c)Some gases float on some liquids.
- (d)Some gases are soluble in some liquids.

14. The most commonly used bleaching agent is

- (a). alcohol
- (b). carbon dioxide
- (c). chlorine
- (d). sodium chlorine

15. The pH of soil varies from area to area . Very few crops grow well in acidic soil.

Therefore, farmers treat acidic soil by spreading one of the following over the fields. Identify the same?

- a. water                      b. vinegar                      c. limestone                      d. common salt

16.  $\text{NaCl} + \text{AgNO}_3 \rightarrow \text{AgCl} + \text{NaNO}_3$  is an example of \_\_\_\_\_.

(a) neutralization reaction

(b) redox reaction

(c) double displacement reaction

(d) decomposition reaction

17. Photosynthesis generally takes place in which parts of the plant?

(a) Leaf and other chloroplast bearing parts

(b) stem and leaf

(c) Roots and chloroplast bearing parts

(d) Bark and leaf

18. Oxygen in our blood is transported by a protein named

A. Haemoglobin

B. keratin

C. Collagen

D. myoglobin

19. Choose the alternative which is closely resembles the mirror image of the given combination.

**NATIONAL**

**(1) JANUARY**

**(2) JANUARY**

**(3) JANUARY**

**(4) JANUARY**

(a) 1

(b) 2

(c) 3

(d)

4

20. Sound is a kind of energy and it needs a medium to travel as it is a kind of longitudinal wave. The speed of sound in different medium is different. Along with the nature of the medium temperature also affects the speed of the sound. At 25°C speed of sound in some medium is given below :

1. Air – 346 m/s

2. Water (Distilled) – 1498 m/s

3. Water (Sea) – 1531 m/s

4. Flint Glass – 3980 m/s

5. Steel – 5960 m/s

Sound energy gets reflected through a suitable reflecting surface. An echo is a reflected sound which is heard separately. The sensation of sound persists in our brain for about 0.1sec. To hear the echo clearly at

22°C, the minimum distance between the source of sound and obstacle should be 17.2 m as the speed of sound in air at that temperature is 344 m/s.

1. The speed of sound is more in sea water than in distilled water at the same temperature because of

- (i) taste of sea water is different from distilled water
- (ii) density of sea water is more than distilled water
- (iii) sea water can conduct electricity
- (iv) animals can survive in sea water

2. An echo is returned in 3 sec. at 22°C in a hall. What will be the distance of reflecting surface from the source.

- (i) 1032 m (ii) 516 m
- (iii) 258 m (iv) 344 m

3. The speed of sound in space will be

- (i) 0 m/s (ii) 332 m/s
- (iii) 596 m/s (iv) 1498 m/s

4. In the same medium the speed of sound

- (i) increase with temperature
- (ii) decreases with temperature
- (iii) remains same
- (iv) first increase then decrease

### ENGLISH

Sudha Murthy is an Indian social worker and author. Murthy began her professional career as a computer scientist and engineer. Sudha Murthy's "Wise and Otherwise" is one such book that has episodes beautifully crafted from reality into words and depicts life the way it is. Read the stories from the book titled "Wise and Otherwise" and answer the following questions.

1. Write a character sketch of any character that you like most. Why? (How I taught my grand mother to read, Villa for sale )
2. Choose either story / drama /poetry and rewrite it using rich vocabulary. Replace the central character with yourself and let other characters remain the same. You can change the setting and situation of the story/ drama /poetry. Add interesting illustrations and present the story/ drama /poetry in the form of a story booklet.
3. Select a story/ drama /poetry from the literature book and complete the given story map.

### STORY MAP

Title: \_\_\_\_\_  
Author: \_\_\_\_\_  
Setting: \_\_\_\_\_  
Problem: Event 1: \_\_\_\_\_  
Event 2: \_\_\_\_\_  
Event 3: \_\_\_\_\_  
Event 4: \_\_\_\_\_  
Event 5: \_\_\_\_\_

3. Make a book review on part 1& 2 on Gulliver's Travel by Jonnathan Swift roll no wise (as discussed in class) on the following points

- 1 Acknowledgement & Book cover
- 2 About the author
- 3 Characters
- 4 Summary part 1
- 5 Summary part 2
- 6 Change the ending

Note : a) Use coloured A4 sheets .

b) Write only on one side

c) Book cover and presentation should be attractive.

4. Read either the book or enjoy the movie "Life of Pi" by Yann Martel during the vacations.

### FRENCH

1. Ecriture( Writing)- Ecrivez un article/ une poésie sur une feuille de papier de taille A4 dans une manière décorative . Vous pouvez choisir l'un des titres :
  - Famille, professeur, école, printemps, pluie
2. Préparez une devinette française (quiz) sur les leçons (4,5,6) d'unité-II avec un power point présentation.
  - Questions must be relevant to the chapters
  - Prepare 15-20 slides.
3. Ecoutez un conte de votre choix sur –www.mondedespetits.com. Après ça, Préparez une présentation orale en bref.
4. Faites les exercices de compréhension (1-9) et de grammaire (pg 50, 56-58,78) and ( pgs-79,86-89) pgs( 35-37) de <Get Ready>.

### हिंदी गृहकार्य

#### कक्षा - नवीं

नीचे कुछ शब्द दिए गए हैं। उनके नीचे दिए गए वर्ग में इन शब्दों से सम्बंधित वर्ण दिए गए हैं। उन वर्णों पर अलग-अलग रंगों से घेरा लगाइये। उदाहरण के लए 'अनुपम' के लए हरे तथा 'उद्यान' के लए पीले रंगों का प्रयोग कर सकते हैं। निम्न वर्णों का प्रयोग करते हुए नवीन शब्द बनाइये।

अनुपम, उद्यान, क्षमा, ज्ञात, तीर, तैयार, पता

र	ग	अ	प	अ	क	त्	ल्	क्	अ	ज्
उ	द्	य्	आ	न्	अ	ऐ	च्	ष्	य्	भ्
श्	प्	द्	प्	उ	च्	य्	थ्	अ्	क्	आ
फ्	इ	प्	अ	प्	ज्	आ	न्	म्	न्	त्
ह	त्	ल्	ह	अ	म्	र्	ल्	आ	त्	अ
त्	आ	स्	त्	म्	श्	अ	त्	ई	र्	अ
				अ						

- 'र' के मुख्यतः तीन रूप होते हैं- रेफ (ऌ), (ॡ) एवं (ॣ) इन तीनों रूपों का प्रयोग अलग-अलग शब्दों के साथ अलग-अलग रूप में होता है। रेफ (ऌ) की एक विशेषता है कि यदि कोई वर्ण आधा है तो वहाँ पर इसका प्रयोग नहीं होता, भले ही उस स्थान के लिए उच्चरित हो रहा हो; जैसे 'पुनर्स्थापना' 'न' के बाद 'र्' का उच्चारण हो रहा है लेकिन 'स' का रूप आधा होने के कारण यह र (ऌ) थ की मात्रा के साथ प्रयुक्त हुआ है।

इसी तरह से रेफ (ऌ) वाले कम-से-कम 10 शब्दों की एक सूची बनाइए।

- |         |          |
|---------|----------|
| 1. .... | 6. ....  |
| 2. .... | 7. ....  |
| 3. .... | 8. ....  |
| 4. .... | 9. ....  |
| 5. .... | 10. .... |

- छात्र नीचे बने चित्र के आधार पर विराम-चिह्नों का प्रयोग करते हुए वाक्य बनाएँ-



समस्त कार्य स्क्रेप फाईल में करें.

### SANSKRIT

1. बुद्धमत्ता पर आधारित 5 कहानियों का संग्रह करके और उनकी सीख पर अपने वचार लखते हुए एक परियोजना बनाइये।
2. स्वस्थ जीवन के लिए आवश्यक तत्वों पर आधारित एक परियोजना बनाइये।

**NOTE : 1. PREPARE FOR THE CREDIT TEST SCHEDULED ON**

DATE	SUBJECT	SYLLABUS
6/7/2015	SCIENCE	Physics: Motion (Topic 8.1-8.4) Chemistry: Matter in our surroundings (Till topic 1.4.2) Biology: Cell- "The Fundamental unit of life"
13/7/2015	ENGLISH	How In taught my grandmother to read, Formal/Informal letters, Biosketch, Verb forms, Determiners, Integrated grammar exercise , Novel Part 1

**2. PSA Assignment to be done in respective Assignment notebook**