



**TAGORE INTERNATIONAL SCHOOL  
VASANT VIHAR N.DELHI  
HOLIDAY HOMEWORK  
CLASS XI C & D (2020-2021)**

*Dear students,*

*The summer break is finally here!*

No matter what your goal is, summer vacation is the perfect opportunity to explore enriching activities that you always wanted to try but never got around to doing.

In keeping with your need to unwind and rejuvenate, we have cherry-picked some exciting activities and projects for you to immerse in. Hope you make the most of this fun way to learn while staying safe at home, following social distancing norms, practising good hygiene and keeping yourself hydrated.

The following are recommended:

- Follow a daily routine which is a mix of academics, leisure time and helping with tasks at home.
- Physical exercises to keep yourself agile, healthy and active.
- Learn a new skill by exploring several options available online.
- Reduce time spent on social media and connect with family and friends.
- Attend some webinars and online sessions to stay updated .
- Reach out to your teachers in case you need any academic or emotional support.

*Do remember, we are always there for you!*

*Make the most of your summer break. Happy Holidays!*

## ENGLISH

Please refer to the following guidelines while attempting your English Holiday Homework:

- Homework needs to be done on A4 size sheets. You may submit it in a decorated file/folder with an attractive cover.
- You may use coloured A4 size sheets and calligraphy to make your work attractive.
- You must present your work neatly in your own handwriting.
- You must adhere to the prescribed word limit.
- Improve your vocabulary and sentence formation by reading the assigned book.
- Refer to the link attached while penning down your SOP-

<https://www.scoop.it/topic/personal-statement-samples-usa>

- Please remember that answers formulated in one's own words are more impactful and worthy of appreciation.
- Your work is to be submitted in Google Classroom on 01 July 2020 .

### TASKS:

1. Each one of you has certain aspirations in life which become your raison d'être (a reason for existence). Document yours in the form of a ' **Statement of Purpose**' in not more than 350-400 words.
2. On the basis of your reading of 'The Adventures of Sherlock Holmes' (Dover Thrift Editions), attempt a book review with special focus on the plot, characters, social context and critical appraisal in not more than 250-300 words.

**Submission Date for the tasks mentioned above is Wednesday, 1<sup>st</sup> July.**

<b>MATHEMATICS</b>	<p><b><u>TASK 1- MAGIC OF GOLDEN RATIO</u></b></p> <p>The Golden Ratio, a remarkable concept of Mathematics, has been a fascination for architects who have made use of it in their creations.</p> <p>Explore more about the Golden Ratio and its connection with architecture and present the following through a PPT.</p> <ol style="list-style-type: none"><li>1. Elaborate on 'Golden Rectangle' and 'Golden ratio'.</li><li>2. Draw a connection between Golden Ratio and various architectural structures of the world.</li><li>3. Use your creativity, design any geometrical figure using the concept of Golden Ratio.</li><li>4. No of slides should be 10 - 15 slides</li></ol> <p><b><u>TASK 2- FUN WITH DESMOS</u></b></p> <p>Desmos is a free online graphing calculator that lets users explore Math in new and exciting ways. It helps you to graph functions, plot tables of data, evaluate equations, explore transformations, and much more. Explore this app by using the links mentioned below.</p> <p><a href="https://www.youtube.com/watch?v=SYrhv_8jRM">https://www.youtube.com/watch?v=SYrhv_8jRM</a> <a href="https://www.desmos.com/calculator/dq5df36rgs">https://www.desmos.com/calculator/dq5df36rgs</a> <a href="https://www.youtube.com/watch?v=NzItoJCXUAw">https://www.youtube.com/watch?v=NzItoJCXUAw</a></p> <ol style="list-style-type: none"><li>1. Sketch any Indian Architectural structure involving the use of straight lines and various other curves like circles, ellipse, parabola and hyperbola via the Desmos App.</li><li>2. The work should be presented in the form of e-files or printouts depending on the availability of resources.</li></ol> <p><b>NOTE:</b> Complete the Math Practical Work which has been assigned. <b>The Project Folder should be ready by 30th June and submitted once the school reopens.</b></p>

<p><b>PHYSICS CHEMISTRY BIOLOGY</b></p>	<p>Unlock the Greta Thunberg in yourself and pave the way for all of us to be environment conscious occupants of planet Earth.</p> <ul style="list-style-type: none"> <li>● Explore, investigate, design and suggest practical ways to build a healthy future for our planet.</li> <li>● The project work must integrate scientific principles from Physics, Chemistry and Biology.</li> <li>● You may select <u>any one</u> of the suggested topics below or work on one of your own ideas: <ul style="list-style-type: none"> <li>a. Methods to dispose waste using artificial Intelligence.</li> <li>b. How to minimize the use of micro plastics and its adverse effect on biodiversity.</li> <li>c. Dealing with Covid -19 using technology.</li> <li>d. Think and design Classrooms in 2050.</li> <li>e. Effective ways to sanitize using materials available at home.</li> </ul> </li> <li>● The Project work has to be documented in 15-20 pages, supported with research work, data, working model( if required).</li> <li>● It can be a hand written report or an e submission.</li> <li>● The Project Report must have the following: <ul style="list-style-type: none"> <li>a. <b><u>Cover Page</u></b>: showing the project title, student information, school and session</li> <li>b. <b><u>List of contents</u></b>: with page numbers.</li> <li>c. <b><u>Acknowledgements</u></b>: the institution and the persons who rendered help.</li> <li>d. <b><u>Project Overview</u></b>: Aim, Materials required, Scientific Principle, Future prospects( if any)</li> <li>e. <b><u>Summary and Conclusions</u></b>: Data, Graph, Result.</li> <li>f. <b><u>Bibliography</u></b>: Reference material, name of website, weblink used.</li> </ul> </li> </ul> <p>The project report to be kept ready by <b>30 July</b> and submitted once the school reopens.</p>
<p><b>COMPUTER SCIENCE</b></p>	<p>Python is a powerful language that uses various methods and modules to inculcate logical skills. Use your logic to complete your program file (including code and output screen shots) with the following set of programs:</p>

1. To swap two numbers
2. Enter the choice of the user and perform the following as per the choice entered:

Choice	Function performed
1	Calculate and print the area and perimeter of rectangle
2	Calculate and print the area and perimeter of square
3	Calculate and print the area and circumference of circle
Any other number	Print invalid Input

**Do the following programs using FOR loop:**

3. Print the table of a number entered by the user.
4. Print the factorial of a number entered by the user .
5. Print the Fibonacci series till the level entered by the user .
6. Print all the even numbers between 1 to the number entered by the user. Also find the sum of all these even numbers.
7. Print all the odd numbers between the range 50 and 100.
8. Print all the multiples of 5 in the range between 1 to the number entered by the user.
9. Input a number from the user and check whether it is prime number or not.
10. Print the following patterns using loops:

a.

```
  *
 * *
 * * *
 * * * *
 * * * * *
```

b.           1  
              1 2  
              1 2 3  
              1 2 3 4  
              1 2 3 4 5

c.           4 3 2 1  
              4 3 2  
              4 3  
              4

d.           1  
              2 2  
              3 3 3  
              4 4 4 4  
              5 5 5 5 5

The project report to be kept ready by **30 July** and submitted once the school reopens.

## ECONOMICS

### KAL, AAJ AUR KAL

The Global COVID-19 pandemic has forever changed our experiences as customers, employees, citizens and humans. The crisis is fundamentally changing how and what consumers buy.

1. Develop a case study on any three companies of your choice:- Reliance, Wipro, Amazon, Ola, Uber, Swiggy and Zomato.
2. Recently, the Govt. of India has announced a financial package. Explain how this is going to affect the companies you have selected?
3. With the help of a graphical representation, compare the rate of unemployment and the change in the demand pattern and analyse the results.
4. Read the newspaper for the month of June and collect at least 4 news items which may have relevance to the companies you have selected.

#### General Guidelines

- ❖ The complete project should be in the form of a file, consisting of the recordings of the value of shares and the graphs.
- ❖ The project should be handwritten.
- ❖ The project should be presented in a neat folder with separators for each subject.
- ❖ The project report should be developed in the following sequence-

a. Cover page

b. List of contents

c. Introduction

d. Topic with suitable heading

e. Planning and activities done during the project, if any

f. Observations and findings while conducting the project

g. News paper clippings

h. Conclusions: (summarised suggestions or findings, future scope of study)

i. Acknowledgements and preface

j. Bibliography

**The Project Folder should be ready by 30th June and submitted once the school reopens.**

## PSYCHOLOGY

### UNDERSTANDING HUMAN BEHAVIOUR

1. Conduct quantitative research and prepare a project report for the same.
2. You can choose any topic related to human behaviour.

#### Steps to follow :

- Conceptualise the problem
- Frame the hypothesis
- Literature review of the topic chosen
- Collect data (Describe the methodology being used)
- Analyse and Interpret the data
- Draw conclusions
- Bibliography

#### Instructions:

- ❖ Project should be of 15-20 pages
- ❖ Take up any one methodology taught
- ❖ If you are conducting a survey, population sample should comprise a minimum of 15 participants