



**TAGORE INTERNATIONAL SCHOOL**  
**VASANT VIHAR, N. DELHI**  
**HOLIDAY HOMEWORK – (2019-20)**  
**CLASS XI C/D**

At TIS, we endeavor to inculcate holistic learning hence we constantly strive towards entwining academic excellence with experiential learning. We encourage our students to imbibe values and learn the much needed life skills to survive. They are encouraged to be conscious citizens of the country, be aware of the need to protect the environment and utilize the meager resources with care.

Summer vacation is a good time to get associated with a social organization and do community service. It would be a good idea to join an NGO engaged in feeding the underprivileged, taking care of the elderly, educating the poor or any other cause close to your heart!

Life is all about choices. So, this year, the theme for the Holiday Homework is 'The Power of Choice'. Choose your area of interest, exercise your choice regarding the medium of presentation and put your best foot forward.

**PHYSICS/CHEMISTRY/BIOLOGY:**

"A child best learns to swim by getting into water; likewise, a child best learns science by doing science". Doing activities provides an opportunity to relate intangible concepts and theories of science with actual observations. Activities actively engage learners with explanatory ideas, verification of scientific concept and theories. These help learners to understand the scientific concepts and help them in application of scientific knowledge in various real life situations.

Research, analyze and come up with innovative ideas which can take on global problems such as world hunger, climate change, environment, alternative source of energy, health etc. **Present your ideas in the form of a research project.**

**Suggested Themes**

- Life Sciences (Plant Science, Animal Science, Health Science)
- Chemical Sciences (including its application to Biology)
- Physics (including Robotics, Intelligent Machine and Engineering)
- Computer Science (including Instrumentation and Embedded Science)
- Environmental Science (including Botany)

Some specific areas you could research on are:

- Innovative methods to beat plastic pollution
- Measuring sulphur and carbon dioxide levels in vehicles entering Delhi and action taken against such pollution
- Vegetation that can clean the water of river Ganga and Yamuna

- Innovative methods of combating water shortage
- Smart devices/applications helpful to society
- Agriculture(Kitchen Garden) - Growing food crops and other plants in small indoor spaces

## PSYCHOLOGY

- Use your 'power of choice' to select a topic related to Human Behavior for conducting a research.
- You can do survey research, personal interviews, case studies, questionnaire survey, observational research, or any other method that suits your topic.
- You have the freedom to present your results in any manner you wish, such as Powerpoint presentation, Written submission, Art Work, Paper presentation or any other option that does justice to your topic.

## MATH

Casting vote to a particular party is a choice every eligible voter has to make during elections. As the election fever has been raging since the last few days in our country, what better than to analyse the choice people made in the current elections as well as in the past elections and how their choices affected the performance of different political parties.

1. Conduct a survey of 100 people to find out /which party they had voted for in the last two elections and make a mathematical representation of the same (Venn Diagrams, pie charts, bar graphs etc)
2. Find out the number of seats won by some prominent nationalist parties in the last 5 elections and represent the data on separate graphs for each part.

Conclude with your interpretation of the survey and the performance of the different parties.

## COMPUTER SCIENCE

Perform an analysis on entire grade XI and XII computer science curriculum and divide the syllabus into the following categories:

1. Application logic designing
2. Database administration
3. Testing and debugging
4. Web development
5. Network administration
6. Computer system and architecture
7. Operating system

Answer the following questions

- Q1. CBSE has included testing and debugging in curriculum. Why do you think it is important for a child to learn testing and debugging?
- Q2. What do you understand by cyber security? Perform a case study on cyber bullying.
- Q3. What do you think are the future scopes in cyber security system? Provide your ideas to improve cyber security.

- Q4. A current trend of noSQL database is going on. Perform an analysis on its advantages over traditional relational database management system.
- Q5. Python is becoming a famous language for web application development. Compare its advantages over other languages.

After answering all the questions, choose your favorite category and give reasons for your choice.

## **ECONOMICS**

POWER OF CHOICE- A RIGHT OR A RESPONSIBILITY?

Visit a vegetable market(local vegetable market, Big Bazar, Safal store) and compare the fluctuations in the prices of any five vegetables week wise . Represent the information collected in the form of bar diagrams.

Analyze why a consumer makes different choices.

## **ENGLISH**

1. Write a Book review in 100- 150 words on "The Adventures of Sherlock Holmes"(Dover Thrift Editions)
2. Write an essay on the topic: A Free and Fair Election is the Keystone to successful Democracy. Word limit 200-250 words
3. Cut out samples of Classified Advertisements under the following heads and paste them in a scrap book. List the salient features of each category. Word limit 50 words
  - a) To-Let
  - b) For Sale
  - c) Matrimonial
  - d) Situation Vacant