**Guidelines for Grades 11 & 12 Investigatory Projects- 2016**

**Objectives:**

* To comply with the curriculum guidelines as specified by CBSE
* To prepare students of Grade 11 and 12 to complete an investigatory project in the respective subjects.
* To prepare students for the Final / Board examinations of CBSE
* Investigatory Project is a type of experimental exercise with a scientific attitude for the students of grade 11 and 12 as a part of the AISSC Examination of the CBSE.

**Scope of Work:**

* Concerned subject teachers will suggest various topics for the investigatory projects to be conducted as a part of the curriculum of Grade 11 and 12.
* Subject teachers will provide an exhaustive list of possible projects to students in order to select from the list as a part of the curriculum.

**Guidelines:**

**Selection of topic for Project:** Students select their topic of interest after going through their syllabus thoroughly and consulting relevant scientific literature under the guidance of the subject teacher.

Students are to select a project from the exhaustive list suggested by the subject teacher.

The students are to collect all possible information / scheme of work on the project and prepare a rough outline of the experimental work of the project.

* The students are to plan and conduct the investigatory / experimental process to derive the best results.
* The Title, Bonafide Certificate and Acknowledgement pages are to be typed with Times New Roman Font 12 and Headings in Bold 16 in size.
* The rest of the project is to be handwritten with blue ink pens.
* It must be written on plain / white papers.
* It must be written only on one side of the page and the other side to be used for diagrams / pictures / illustrations and etc.
* Each page of the project is to be numbered.
* Each diagram / graph / picture / illustration is to be numbered separately.
* It must be with a minimum of 10 and a maximum of 25 pages in total.
* It is to be filed and submitted to the concerned Subject Teacher.

**Sequence of the Project:**

The sequence of filing the Project is as follows:

* Title / Aim – Name of the Project – (First page) *( Annexure1 )*
* Bonafide Certificate- (Second Page) : Signed by the Subject Teacher, Head of Senior, Head of School & External Examiner (*( Annexure2)*
* Acknowledgement- (Third page) – The students are to acknowledge the help and guidance that they received from their Teachers, Heads of School, Parents and friends by expressing sincere gratitude to them. *( Annexure3)*
* Content / Index of the Project with page numbers – (Fourth Page)
* Introduction – (Fifth Page) – Information collected regarding the Project from various sources and the necessity / importance of the project.
* Objectives of the Project must be specified with clear specifications and timelines.
* Requirements-–Resources required for investigatory / experimental work
* Procedure – Write details of the investigation / experimental work.
* Observations – Record observations / findings / data in the form of tables, histograms, graphs, photographs, pictures and etc.
* Results/ Conclusion – Give analysis of the data and compare your results with those in the literature and draw conclusions.
* Bibliography – (Last page) Mention the list of books, magazines, journals, internet websites (URLs) consulted during the course of the project in alphabetical order. *(Annexure 4)*

**Timelines:**

|  |  |
| --- | --- |
| **Job** | **Time** |
| Discussion with Subject teacher on Topic | May |
| Finalization of Topic for Project | June |
| Submission of First Draft of Project ( Scheme of work & Resources) | September |
| Corrected / comments copy to students by Teachers | October |
| Submission of Second Draft of the Project | November |
| Investigatory / Experimental work | December |
| Final Scrutiny of Project by teachers with data and observations | January |
| Submission of the completed Project in full shape | January |
| Preserving of the projects by Lab Assistants | February |
| Disposal of the Projects from the Store | After 3 years |

**(Annexure 1)**

**Name of Project**

**Picture of Project**

**INVESTIGATORY PROJECT WORK**

**Submitted By**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Class:   
  
  
Under the Guidance of**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**(Annexure 2)**

CERTIFICATE

This is to certify that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of Class \_\_\_\_\_\_\_\_\_\_\_\_has prepared the investigatory project in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_entitled \_\_\_\_\_\_\_\_\_\_\_\_\_\_. The report is the result of his/her efforts and endeavours. The report is found worthy of acceptance as the final project report for the subject \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of Class XI / XII. He / She has prepared this report under my guidance.

**Name of the Internal Examiner Name of the Head of Senior**

**Signature Signature**

**Name of the External Examiner Name of the Principal**

**Signature Signature**

**(Annexure 3)**

ACKNOWLEDGEMENT

I would like to express my deep sense of thanks and gratitude to the Subject guide \_\_\_\_\_\_\_\_\_\_\_, for guiding me immensely through the course of my project. The Teacher had always evinced keen interest in my work. The constructive advice and constant motivation provided, have been responsible for successful completion of this project.

My sincere thanks also go to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, our Principal, Head of School and HoD of the Subject for extending every possible support.

I also thank my parents and my classmates for their timely help and guidance. Last, but not the least, I would like to thank all those who had helped directly or indirectly towards the completion of this project in fulfilment of my Course.

Name of the Student

Signature

**(Annexure 4)**

**Bibliography**

**(**Alphabetical Order**)**

1. Books and Journals
2. Agarwal JS, Text book of Chemistry for Advanced Learners, 2006
3. Baltimore, Chemistry in everyday life, 2010
4. Jane Austin, Pride and Prejudice, 1987
5. Electronic Resources
6. <http://www.chemistryinclass.org>
7. <https://www.polymers.com>
8. <http://www.sciencein.nic.in>