**Group 4 Project**

**What is Group 4 project?**

**Group 4 project aims to:**

* provide you with opportunities to appreciate both the implications of science and technology and the limitations of scientific study.
* allow you to act as a member of a team to investigate a problem or topic that requires input from several different areas of Science and Technology.
* develop important personal skills as you work with other team members and exchange ideas.
* develop your self-motivation and perseverance.
* allow you to consider the environmental implications of the topics studied.

**Group 4 project consists of three stages:**

1. Planning (2 hours) – Identify the central topic and discuss how to investigate it
2. Action (6 hours) – Investigating the topic as a team.
3. Evaluation (2 hours) – Sharing findings, both successes and failures, with other students.

**Group 4 project addresses aim 7 and 8 in the IB syllabus:**

* **Aim 7**—“develop and apply 21st century communication skills in the study of science.”

This includes the use of technology (for example, data logging, spreadsheets, databases and so on) in the action phase and certainly in the presentation/evaluation stage (for example, use of digital images, presentation software, websites, digital video and so on).

* **Aim 8**—“become critically aware, as global citizens, of the ethical implications of using science and technology.”

***\*Students studying two or three sciences are only required to do one Group 4 Project.***

**Types of Group 4 Project**

The project must be based on science or its applications. It may have a hands-on practical action phase or one involving purely theoretical aspects. It could be undertaken in a wide range of ways.

* Designing and carrying out a laboratory investigation or fieldwork.
* Carrying out a comparative study (experimental or otherwise) in collaboration with another school.
* Collating, manipulating and analysing data from other sources, such as scientific journals, environmental organizations, science and technology industries and government reports.
* Designing and using a model or simulation.
* Contributing to a long-term project organized by the school.

**Reflection**

A reflective statement written by each student on their involvement in the group 4 project must be included on the coversheet for each internal assessment investigation. The reflective statement must be written on the reflection sheet by the end of the group 4 project and must be handed to your science supervisor. You may refer to the following questions when writing your reflective statement:

* What were your strengths?
* Did you approach the project with self-motivation?
* What was your role in the group?
* How did you collaborate and communicate in the group? Did you integrate the views of others?
* What are the areas of concern? How would you improve your project?

**Theme for 2014-2015:** Old vs New

**Procedure:**

You will split into 13 groups; each group will have students representing the three sciences. The groups will be as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Group** | **Students** | **Supervisor** | **Location** |
| A |  |  |  |
| B |  |
| C |  |  |  |
| D |  |
| E |  |  |  |
| F |  |
| G |  |  |  |
| H |  |
| I |  |  |  |
| J |  |
| K |  |  |  |
| L |  |
| M |  |  |  |

**Timetable:**

|  |
| --- |
| **Day 1: Wednesday, May 20, 2015** |
| **Time** | **Activity** |
| 7:50 – 8:30 | What is Group 4 project? (in conference room) |
| 8:30 – 10:30 | Splitting into groups for brain storming – planning starts (students take minutes of meetings) |
| 10:30-11:00 | Break/ Supervisors discuss research questions with the students |
| 11:00 – 1:00 | Students start research/experimental work – There could be a mixture of practical activities, library and internet research. |
| 1:00 – 1:40 | Break |
| 1:40 – 2:40 | Students continue research/experimental work – posters/powerpoint/etc. |
| **Day 2: Thursday, May 20, 2015** |
| **Time** | **Activity** |
| 8:00 – 11:00 | Students continue research/experimental work – posters/powerpoint/etc. |
| 11:00 – 11:15 | Break |
| 11:15 – 11:45 | Students finish off their projects |
| 11:45 | Students display their work in the gym 2 |
| 12:00 – 2:00 | Formal Assessment –Each group will have a maximum of 15 minutes to present their projects. 5 minutes of questions will follow the presentation. (students need to complete and bring self evaluation forms to this session)/ Staff visits the gym. |
| 2:00 – 2:45 | Students fill in the self-evaluation sheet/ students continue introducing their projects to the school community |
| 2:45 | Take down displays |

**Requirements:**

* All students need to bring the following:
* Laptops – to be used for research
* Cameras – to take photos of work and place on posters to be displayed
* Lab coats – if the project includes an experiment
* Dress up formally on the 2nd day.
* Students need to bring the materials to be used for preparing posters such as markers, colours, card boards, etc.
* Students, who wish to conduct an experiment as part of their Group 4 project, are expected to bring the materials to be used by Thursday, May 21st. Students may use the equipments and chemicals currently available in the lab, however, they need to bring any additional materials that are not available. The lab technicians will be available in the lab for any guidance or support on Wednesday May 20th and Thursday May 21st.
* Special attention is to be paid to safety, ethical and environmental issues in case practical work is involved.