From Teachers:
Wasurick (2)&
McKay (1-3)
IB Sciences – Physics and Bio II
Wks 1-4

Distance Learning for ALL IB Physics and IB Bio II students: Science- Group 4 project 2019-2020

Dear IB science students,

I hope you are well. Every year Tracy high IB science testers must do a group 4 project. It is not a "hard" requirement for IB. It is requirement that all IB science testers complete the project. Given the need for distance learning staring on April 20th, 2020, Mr. Wasurick and I worked together to turn this into the First 4 weeks of the 5 week distance learning assignment for all IB bio II and all IB physics students. When the assignment is posted/ picked up from THS, please read the details carefully.

→If you took an IB science test last year, then you should already have completed this requirement of IB international, but you will still be expected to complete the assignment for your IB Bio II and/or IB Physics grade.

Sincerely,
Ms. McKay and Mr. Wasurick

Basic organization

If you readily have digital access

I have set up an Edmodo for "Group 4 20192020." Please join ASAP. The join code is **3fseit**. If you are unfamiliar with Edmodo, it is a free educational website and phone app. Join code are time sensitive, if the one above does not work, check to see if you have an email from your teacher / Aeries with an updated code. If you still need help email your teacher(s) at emckay@tusd.net and/or rwasurick@tusd.net .

- ➔ If due to personal circumstances you have no practical way to reach out and join a virtual group, please creatively complete the project independently. If possible, engage members of your household in this project. They may be participants and/or an "audience" that gives you feedback on your project.
  - If you are an "IB tester" please include a brief statement in your 1st week's work clarifying that you need an exception to do this collaborative project as an individual project due to personal factors during the COVID-19 pandemic of 2020.

If you have very limited to no digital access

If you do not have digital access, then you may creatively complete the group 4 project while strictly adhering to the California Stay at Home Order.

- ➔ You may only collaborate with other group 4 project members virtually, so if digital access is limited, then using a family phone to call another group member who can ensure you are part of the project from beginning to end would be a creative solution.
- ➔ The only group 4 project members that can collaborate in person are those that reside in the same house.
- ➔ If you received a hard copy of this information and have no practical way to reach out and join a virtual group. Please creatively complete the project. If possible, engage members of your household in this project. They may be participants and/or an "audience" that gives you feedback on your project.
  - If you are an "IB tester" please include a brief statement in your 1st week's work clarifying that you need an exception to do this collaborative project as an individual project due to personal factors during the COVID-19 pandemic of 2020.
  - Refer to the TUSD announcements about how to turn in paper assignments.

Background excerpts from IB curriculum guides – 10.0 hrs per student required for IB

The group 4 project is an interdisciplinary activity in which all Diploma Programme science students must participate. The intention is that students from the different group 4 subjects analyse a common topic or problem. The exercise should be a collaborative experience where the emphasis is on the **processes** involved in, rather than the **products of, such an activity.**

In most cases students in a school would be involved in the investigation of the same topic. Where there are large numbers of students, it is possible to divide them into several smaller groups containing representatives from each of the science subjects. Each group may investigate the same topic or different topics—that is, there may be several group 4 projects in the same school.

Students studying environmental systems and societies are not required to undertake the group 4 project.

Project for 20192020 – The Science of Art

What does this mean? A few years ago, we had this theme and below I will describe a few types of arts students explored

- the science of culinary arts by playing with a favorite recipe and making connections to the physics, chemistry, and biology of cooking/ baking. (the chemistry and physics are not expected to be at the IB level of that science if no one in your group has taken/is taking the IB level course).
- The science of painting – both from an art history/ art appreciation point of view and from the act of painting. The students made connections to the physics, chemistry, and biology of painting.
- The science of music -- both from a music appreciation point of view and from the act of playing music. The students made connections to the physics, chemistry, and biology of music.

→ Remember there are more categories of arts then the ones listed above. Below is a list of some arts you might be worried don't fit into the category of arts but do qualify as arts. It is not exhaustive list, you will brainstorm ideas before you narrow down your project idea.

- ✓ Don't forget 3D arts like papier-mâché and other things that fall on the craft side of arts and crafts can be fun to explore and often relies on making things that are readily on hand.
- ✓ Don't forget that cinema is also an art… from the science of making movies, the science of digital distribution, to the science and science fiction found with in movies.
- ✓ Don't forget literature is also an art…from the science of making the written word possible, to how science and technology have changed literature distribution throughout history, to the science and science fiction found in the literature.

Alternative project option

Given the extraordinary times, your group for group 4 may do the science and technology project inspired by the pandemic… the science (bio, chem and physics) and distribution of fill in the blank (Toilette paper, testing, masks, ventilators, etc…)

Project – a step by step breakdown

REMEMBER: complete the group 4 project while strictly adhering to the California Stay at Home Order. All contact with other students may only be virtual contact. The only exception is students who live in the same household may collaborate in person, as that adheres to California's Stay at home order.

Time Log: Track all of your time to the nearest 15 min. increment. This is essential documentation for IB.

Project: Individual Student Time Log *(turned in this log to Edmodo's group4 20192020!!!)* Name: _____

Title of Project:

This sheet is to keep a record of your work on the Group 4 project, whether as part of a group, with a partner or as an individual. You must keep it up-to-date, to help you keep a sense of your progress. Your time log will be submitted upon the conclusion of this project.

Date	Times	Activity (specify group or individual task) **Warning: if you were not a part of the activity, it does NOT count on your time log**	Hours
		Must at least total to 10.0 hours **TOTAL→**	

Need more rows for documentation? Add them ☺

Wk1: Day1-4 (Due by 5/8/20)

1. Read the information above at least two times **(30 minutes)**
2. Sign up for Edmodo using join code **3fseit**.
    a. Refer above if you have digital limitations.
3. "Class" brainstorm **(30 minutes):** Click on the Brainstorm link in Edmodo
    a. Record 1-2 ideas you have. They do not need to be fully developed.
    b. Look at ideas listed and add a smiley ☺ face next to 3-5 ideas you like. If you are one of the first contributors, you might need to revisit the page later to do this.
4. Form a project group of 5-6 students (see list below). (**30 minutes)**
    a. **Please be inclusive.** If you now a quiet student that has a hard time asking to join groups, invite them to be in your group via text, Instagram, etc…if you don't have a way to reach out to the quite student you could email me directly and give me permission to pass on your email information. I will then forward the email to the quiet student using the email I have on record.
    b. Email teacher(s) emckay@tusd.net and/or rwasurick@tusd.net if you need to form smaller group. Please include a reasonable justification.
    c. Groups: One person from the group. Click on the groups link and fill out the questionnaire so we can track who is in what group.
5. Lab Project: Initial Group Planning Form **(45 minutes) (Due by 5/8/20)**
    a. Review the "class" brainstorm with your group
    b. Discuss ideas old and new…narrow down to 3 ideas.
    c. Complete the handout. Feel free to make it into a shared doc that you can all simultaneously edit.
    d. Each group member must separately turn in a copy of this document so I can easily track everyone.

Wk1: Day 5 (Due by 5/8/20)

6. Write a paragraph reflection. How is the project going so far….What was interesting, challenging, etc. **(15 minutes)**

Wk2: Day 1-4

7. Start the activity part of the project **(2 1/4 hrs)**
    a. Each individual must check with their parent/ guardian prior to using household resources.
    b. Carry out project alone together… you can only count the hours of when you are directly doing the project or you are virtually watching or virtually collaborating with another group mate working on the project.
        i. Document time
        ii. Document – ex: pictures

Wk2: Day 5 (Due by 5/8/20)

8. Write a paragraph reflection. How is the project going so far….What was interesting, challenging, etc.
    a. *Note: if your group really gets into the project, you can finish the project in fewer days as long as you log 10.0hrs of time. Just make sure you pause and write your reflections at the 25%, 50%, 75% and 100%.* **(15 minutes)**

Wk3: Day 1-4

9. Continue and the activity part of the project **(2 1/4 hrs)** *FYI: IB will let you claim up to 6 hrs on the activity project… so if you are having fun, keep having fun.*

Wk3: Day 5 (Due by 5/15/20)

1. Write a paragraph reflection. How is the project going so far….What was interesting, challenging, etc.
    a. *Note: if your group really gets into the project, you can finish the project in fewer days as long as you log 10.0hrs of time. Just make sure you pause and write your reflections at the 25%, 50%, 75% and 100%* **(15 minutes)**

Wk4: Day 1 -4 (Due by 5/15/20)

10. Electronic poster **(1 ¼ hours)**
    a. Make an electronic poster about the project and the process of the project. If project goes beyond basic visual medium and you want to imbed video clips or audio clips, great, just watch the file size doesn't get massive.
11. Online Symposium **(45 minutes)**
    b. **Post** (*that way everyone on Edmodo can see it*) the electronic poster to facilitate.
        i. Make sure Post includes comment that has every group members name attached.
        ii. Make sure the Poster includes a proper heading with every group members name, their IB science teacher(s) and their period(s)
        iii. Please post as soon as you are finished… others will only have posters to review and comment on if you don't wait until the last minute.
    c. Read/ comment on 3-5 other project posters
        i. Make sure your comments are thoughtful and substantive
        ii. No trolling!!!

Wk4: Day 5 (Due by 5/15/20)

12. Reflection_ 4ICCS_e 2020 **(20 min)**
    d. Complete the IB official form (IB testers- use your IB# - see Edmodo for reference list*, non testers use your Name)
    e. Turn in **if you have no digital access and are a tester and do not remember your IB number, make sure your name is on the form.*
13. Double check your Time sheet math and turn in. **(10 min)**

Lab Project: Initial Group Planning Form

To be completed at the **Interdisciplinary Initial Group Meeting** (Date: _____)

Aims to be addressed by this project

Aim 7: "develop and apply 21st century communication skills in the study of science."
Aim 8: "become critically aware, as global citizens, of the ethical implications of using science and technology."
aim 10: "develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge".

Group Members Names/ teacher (McKay, Wasurick, or Both)

_____/_____
_____/_____
_____/_____
_____/_____
_____/_____
_____/_____
_____/_____

Description (1 paragraph) of the topic your interdisciplinary group has chosen:

Three potential experiments that could be done

- Potential experiment/ project #1:

How could this project and the act of this project address Aims 7,8, & 10?

7.

8.

10.

Lab Project: Initial Group Planning Form page 2

- Potential experiment/project #2:

How could this project and the act of this project address Aims 7,8, & 10?

7.

8.

10.

- Potential experiment/ project #3:

How could this project and the act of this project address Aims 7,8, & 10?

7.

8.

10.

Selection is _____ project

Write up a basic outline of what you plan to do and when, how you plan to coordinate virtual interactions, and what resources you need (resources should be readily at hand, leaving your house for buying resources for a school project does not fit the California shelter at home regulations). This response should require at least ½ page but no more than 1 page.

4/ICCS, 4/ICCSCS, 4/ICCSDT and 4/ICCSNOS

For first assessment in 2017

International Baccalaureate®
Baccalauréat International
Bachillerato Internacional

Candidate personal code:

Session:

Group 4: Individual candidate cover sheet (biology, chemistry, physics, computer science, design technology, nature of science, astronomy and marine science).

Title of the group 4 project: