2017-2018 Science English Goals and Outline

Science English Goals

- 1. For the students to learn basic Science vocabulary within Physics, mathematics, chemistry and biology.
- 2. For the students to be able to learn presentation skills and presenting in English.
- 3. For the students to be able to communicate using basic science language.
- 4. Be able to explain scientific concepts using English.

English Conversation Goals

- 1. Students should be able to have a daily conversation in English, decline offers, ask for permission and ask a favor.
- 2. Students should be able to listen to a conversation and ask relevant questions about the conversation.
- 3. Students should be able to express their basic ideas and opinions in English.
- 4. Students should be able to understand and respond in English. (Especially each other!)

Other Goals

- 1. To foster a love of science and English
- 2. For the students to learn to think critically.

Materials

GCSE science foundation textbook
Science Dialogue- guest lecturer

Lesson Outline

| Lesson | | Date | |
|--------|--|---------------|--------|
| Focus | | Lesson Length | 65 min |

| Time | Activity | Task/Instructions | Students |
|----------|------------------|--|----------|
| 5 min | Conversation | Students would practice English conversation | |
| | Activity | Connect English conversation to Science English through explanation and activities | |
| 10 min | Vocabulary Sheet | Students are given a vocabulary worksheet to work through. | |
| 10-15min | Lecture or Book | ALT lecture on the topic/ or work time. | |
| | Work | | |
| 30 min | Work | Students would use this time to work on the semesters subject | |
| | | | |
| 5 min | Homework/ Extra | | |
| | Lesson time | | |

English Only: When English only is written on the board, students should use only English. This will be enforced with an English challenge. Example English Challenges: write a sentence using this grammar point, sing a song, give a 30s speech, say the alphabet backwards, tongue twister, guess how to pronounce a word, answer a question in English.

Term 1- Math's and Physics

| Lesson# | Subject | Conversation Strategies | Topic |
|---------|---------------|---------------------------------------|---|
| 1 | N/A | If you don't understand | Introduction Lesson, Student outline, |
| | | | Ashida Survey, English only rule |
| 2 | Maths | Lesson 1: Active Listening | Maths vocabulary and counting big |
| | | | numbers. |
| 3 | Maths | Lesson 2: Follow-up Questions | Averages of sets and frequency tables |
| 4 | Maths | Lesson 4: Responding with Details | Probability |
| 5 | Reading | | Students learn and practice scan reading |
| | Skills | | Introduction to the Universe: |
| | Astrophysics | | Seeing Stars, Time and Space (pgs. 74-77) |
| 6 | Astrophysics | Conversation Review: Active Listening | Solar System Formation |
| | | and Follow up questions | How Big is the Universe? (78-81) |
| 7 | Astrophysics | Conversation Review | Measuring distance of stars: |
| | | | Parallax and Brightness method |
| 8 | Astrophysics | Group conversation | How big is the universe? |
| | | | How did the universe begin? |
| 9 | Kinematics | Giving Opinions and Reasons | Review test material |
| 10 | Mars Lander | | Mars Lander Experiment |
| 11 | Next semester | Supporting reasons | Intro to next semesters individual |
| | intro | | presentations |

Start
Plan for
Guest
Lecturer

Science English Semester 2- Chemistry and Presentations

| Lesson# | Subject | Topic |
|---------|---------------|---|
| 1 | Introduction | Michael Introduction. Explain props, timed reading. Making English |
| | Lesson/ | corrections, then collect scripts. |
| | Presentations | |
| 2 | Chemistry/ | Introduction to chemistry. Zooming in P142-143 |
| | presentations | Hand back draft scripts. Peer check. Writing Final Script. |
| 3 | Chemistry | The Big New Idea, GCSE pgs. 144-145. Introduction to polymers. |
| | | Monomers -> polymers. Collect final scripts. |
| 4 | Guest | Coordination Chemistry Lecture and experiment |
| | Speaker | |
| 5 | Chemistry | Molecules big and Small pgs. 146-148 |
| | | Return Final scripts. |
| 6 | Presentations | Practice how to speak: intonation and enunciation, and how to apply |
| | | this to presentations |
| 7 | Review/ | TED Talk video |
| | presentations | Chemistry test review game and test preperation |
| 8 | Presentations | Student Presentations |
| 9 | Presentations | Student Presentations |
| 10 | Presentations | Semi-Final Presentations |

Term 3- Biology and Research Poster Presentations

| Lesson# | Subject | Topic |
|-----------------------|--------------|---|
| 1 | Biology | DNA, Same and Different (Pgs. 16-17) |
| | | Introduce welcome video |
| 2 | Banana | Extracting DNA from a Banana experiment |
| | Experiment | |
| 3 | Biology | Review Banana Experiment |
| | | Biology test review game |
| 4 | Poster 2 hr. | Students start translating their posters into English |
| 5 | Poster 2 hr. | Poster translation |
| 6 | Review | Poster translation |
| | | Film welcome video |
| | | Review for Science Test |
| | | Poster Deadline |
| 5 th March | | Poster session |