

## Curriculum/Syllabus (14-18 years)

- **Biology**
  - Ecology
    - Ecosystems
    - Diversity
    - Element Cycling
  - Plant Physiology
    - Photosynthesis
  - Microbiology
    - Bacteria
- **Chemistry**
  - Equilibria
  - Redox reactions
  - Gas Phase reactions
- **Geography**
  - Climate(change/impact)
  - Oceans
- **Mathematics**
  - Statistics
  - Differential equations
  - Numerical methods/modeling
- **Physics**
  - Thermodynamics
  - Optics
  - Waves
  - Isotopes

## CarboX Topics/ Methods

- Phytoplankton and Carbon export
- Oceanic Uptake: biological pump
- Terrestrial uptake (sequestration)
- Soil Respiration
- Gas exchange/Fluxes
- Chemical Buffers
  
- Ecosystem modelling
  
  
  
  
  
  
  
  
  
  
- Oceanic uptake: Physical pump
- Remote Sensing

Economics, Social Sciences, Languages, History, Ethics