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| **COURSE DESCRIPTION:** *This is an overview of the course. The course should be committed to the following culturally relevant, empowering, and coherence-driven tenets:*  *-has students learn valuable and engaging ideas about themselves and about others. (Identity)*  *-covers skills/standards that support college/career preparation, creative, and personal development. (Skills)*  *-has students become smarter about academic challenges, their lives, and the world around them. (Intellect)*  *-engages students about power, discrimination & oppression personally, locally, and nationally/globally (Criticality)*  *-allows for access, success and support both in-school and remotely (Coherent Methodology)*  *-allows for success and support collaboratively and independently (Diverse Platforms & Methodology)* |
| Explore and investigate the interrelationships of the natural world and analyze environmental problems, both natural and human-made. You’ll take part in laboratory investigations and field work. I will help you make connections between school, life experiences, and cultural backgrounds. Together we will improve your learning capacity by building your cognitive load and academic mindset. |
| **ENDURING UNDERSTANDINGS:** *Please state the most important ideas for the course. Please name valuable and empowering ideas about themselves and about others. (Identity) Critical and valuable ideas about power, discrimination, oppression and authority in the material, in their lives, and in communities and the world. (Criticality)* |
| |  | | --- | | Energy conversions underlie all ecological processes. Energy cannot be created; it must come from somewhere. As energy flows through systems, at each step, more of it becomes unusable. | | * The Earth is one interconnected system. Natural systems change over time and space. Biogeochemical systems vary in ability to recover from disturbances. | | * Humans alter natural systems and have had an impact on the environment for millions of years. Technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment. | | * Human survival depends on developing practices that will achieve sustainable systems. A suitable combination of conservation and development is required. The management of resources is essential. Understanding the role of cultural, social, and economic factors is vital to the development of solutions. | |  | |

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| **SPECIFIC ACADEMIC SKILLS**: *These are the most important skills for the course, including: those that support college/career preparation, creative, and personal development (Skills); and those that help students become smarter about academic challenges, their lives, and the world around them. (Intellect)* |
| * Developing and using models |
| * Planning and carrying out an investigation |
| * Analyzing and interpreting data |
| * Constructing scientific explanations |
| * Engaging in argument from evidence |

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| **CCL STANDARDS:** *These are the important Common Core Learning Standards (in short form) that will drive the curriculum and connect to units of study and academic skills. No need to list every one!* |
| * [CCSS.ELA-LITERACY.RST.11-12.2](http://www.corestandards.org/ELA-Literacy/RST/11-12/2/)   Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. |
| * [CCSS.ELA-LITERACY.RST.11-12.3](http://www.corestandards.org/ELA-Literacy/RST/11-12/3/)   Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. |
| * [CCSS.ELA-LITERACY.WHST.11-12.1.B](http://www.corestandards.org/ELA-Literacy/WHST/11-12/1/b/)   Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases. |
| * [CCSS.ELA-LITERACY.WHST.11-12.7](http://www.corestandards.org/ELA-Literacy/WHST/11-12/7/)   Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. |

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| **ASSESSMENTS OF SKILLS/STANDARDS**: *These are the major formative and summative measures that will be used to assess student progress on the specific skills, understandings and standards listed above. Please be specific!* |
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**UNITS OF STUDY:** *These are the titles/descriptions of the primary units covered during the course. These units should develop identity, skills, intellect, and criticality, as described above.*

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| 1. The Living World Ecosystems |  | 5. Land and Water Use |
| 2. The Living World Biodiversity |  | 6. Energy Resource and Consumption |
| 3. Populations |  | 7. Atmospheric, Aquatic, and Terrestrial Pollution |
| 4. Earth Systems and Resources |  | 8. Global Change |

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| **TEXTS/MEDIA:** *This is a sampling texts, media, materials covered/utilized in the course. These resources are diverse, relevant, empowering and easily accessible and usable both in-school and remotely.* |
| College Board AP Module  NYT, Science Daily  Living In The Environment (digital textbook)  Various Videos  Various Online Simulations |

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| **COURSE RULES AND GUIDELINES:** *These are the mechanisms that will manage the class and if followed result in student success for this course. These rules/guidelines should be fair, democratic, coherent, sustainable and able to implemented both in-school and remotely, collaboratively and independently.* |
| * Attend and participate in all class activities |
| * Only hand in authentic work |
| * Participate on the APES discussion board |
| * Keep an organized science Lab notebook. |
| * Complete all assigned readings and reports. including but not limited to Science Current Events |

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| **COURSE HOMEWORK POLICY:** *This is an overview of homework distribution schedule and the process for completion and collection. This policy is consistent with the school-wide policy (to-be-finalized) and hold students accountable but also supports them, and does so both in-school and remotely.* |
| Students will be assigned almost daily readings and videos. each night before class.  Complete projects and lab reports as assigned.  Study for exams  Submission of assignments is aligned with schoolwide policy. |