

ARC Week at Glance – Jackson (S1, W9)

Topic: Unit 2 – The Living World: Biodiversity Course: AP Environmental Science Grade: 9 Dates: 9/29 – 10/3

| | Learning Target (I am learning...) | Criteria for Success (I can...) | Activation/ Instruction | Collaboration/ Guided Practice | Independent Learning/ Assessment |
|------------------|---|---|--|---|--|
| | | | <i>(Include at least one/two formatives*in any part of the lesson as needed)</i> | | |
| Monday | that ecosystems have structure and diversity that change over time. | describe ecological succession | Do Now: Daily FRQ for 2.6 | Succession Station Lab | Exit Ticket: Describe differences between primary and secondary succession. |
| Tuesday | that ecosystems have structure and diversity that change over time. | demonstrate mastery of natural disruptions to ecosystems, adaptations, and ecological succession. | Do Now: Technology & Notes Check | | Quiz – Unit 2, Checkpoint #2 (take at the beginning of class) After the quiz, take the Unit 2 Progress Check #2 in AP Classroom |
| Wednesday | that ecosystems have structure and diversity that change over time. | Review | Do Now: Discuss individual data from yesterday's progress check (item topic distribution). | Flash FRQ Quiz on all topics from Unit 2 (cold call students to share their responses). | Exit Ticket: Task Verbs Matching Activity HW – Study for Unit 2 Exam; practice quizzes in Progress Learning |
| Thursday | that ecosystems have structure and diversity that change over time. | Review | Do Now: Daily FRQ for 2.5 | Group Whiteboard MCQs | Exit Ticket: Come up with a fictional (but realistic) example of a population being forced to change their habitat due to a natural occurrence. HW – Study for Unit 2 Exam; practice quizzes in Progress Learning |
| Friday | that ecosystems have structure and diversity that change over time. | mastery of the structure and changing diversity within ecosystems. | Do Now: Technology Check | | Unit 2 Exam |

Additional Info:

Minor Grade

Major Grade

Course materials and resources are available in Canvas.

ARC Week at Glance – Jackson (S1, W9)

Topic: Unit 2: Properties and Bonding

Course: Chemistry

Grade: 11

Dates: 9/29 – 10/3

| | Learning Target (I am learning ...) | Criteria for Success (I can...) | Activation/ Instruction | Collaboration/ Guided Practice | Independent Learning/ Assessment |
|------------------|---|--|--|---|---|
| | | | <i>(Include at least one/two formatives*in any part of the lesson as needed)</i> | | |
| Monday | how changes in an atom's electrons influences the characteristics of that atom. | describe and calculate electronegativity. determine if a bond is ionic, covalent, or metallic based on electronegativity. | Do Now: Determine if the bonds below are Ionic or Covalent | Slides and Notes on Electronegativity Students will update their periodic table. | Practice worksheet on calculating electronegativity and determining which type of bond it is; ionic, polar covalent, non-polar covalent |
| Tuesday | how to obtain, evaluate, and communicate information about how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions. | identify the relationship between the polarity of a substance between the polarity of a substance and its ability to form a solution with another substance. | Do Now: Calculate the electronegativity for the following 2 items and determine what type of bond it is. | Lab Simulation – Soap: Colloids and Polar Molecules (class paced with questions and discussion) | Submit lab sheet for feedback. |
| Wednesday | how to obtain, evaluate, and communicate information about how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions. | identify, describe, and model various types of chemical reactions | Do Now: Based on what you already know, what are signs that a chemical reaction is occurring? | Slides and Notes on Types of Chemical Reaction | Types of Chemical Reaction Manipulative Checklist (teacher circulates and provides feedback as students work through the checklist) |
| Thursday | how to obtain, evaluate, and communicate information about how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions. | conduct an experiment to examine various types of chemical reactions. | Do Now: Lab Safety protocols | Types of Chemical Reaction Lab | Exit Ticket: Submit lab sheet for feedback and grading. |
| Friday | how to obtain, evaluate, and communicate information about how the Law of Conservation of Matter is used to determine chemical composition in compounds and chemical reactions. | demonstrate mastery of electronegativity and types of chemical reactions. | Do Now: Technology Check | Student-Teacher Q&A before the assessment. | Assessment – Electronegativity and Types of Chemical Reactions |

Additional Info:

Minor Grade

Major Grade

Course materials and resources are available in Canvas.

ARC Week at Glance – Jackson (S1, W9)

Topic: Unit 2: Rhythms of Planet Earth

Course: Environmental Science

Grade: 9

Dates: 9/29 – 10/3

| | Learning Target (I am learning...) | Criteria for Success (I can...) | Activation/ Instruction | Collaboration/ Guided Practice | Independent Learning/ Assessment |
|------------------|---|---|--|---|---|
| | | | <i>(Include at least one/two formatives*in any part of the lesson as needed)</i> | | |
| Monday | how to obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem. | describe how nitrogen is cycled through an ecosystem. | <p>Do Now: List 5 locations where carbon can be stored.</p> <p>Ensure that all 3 learning activities from last week have been submitted in Canvas:</p> <ul style="list-style-type: none"> • Carbon Interactive (PBS) • Bioman – Carbon Cycle • Ride the Water Cycle | Slides and notes on Biogeochemical Cycles (Nitrogen Cycle; check for understanding items throughout presentation) | <p>Nearpod and Worksheet: The Nitrogen and Phosphorus Cycle (complete the Nitrogen Cycle section)</p> <p>Exit Ticket: Submit worksheet in bin for feedback.</p> |
| Tuesday | how to obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem. | describe how nitrogen and phosphorus are cycled through an ecosystem. | <p>Do Now: What do we need Nitrogen to make? What percentage of earth's atmosphere is made up of nitrogen?</p> <p>Redistribute yesterday's worksheets.</p> | Slides and notes on Biogeochemical Cycles (Phosphorus Cycle; check for understanding items throughout presentation) | <p>Continue the Nearpod and Worksheet: The Nitrogen and Phosphorus Cycle (complete the Phosphorus Cycle section)</p> <p>Exit Ticket: Why are the nitrogen and phosphorus cycles necessary? Provide an explanation for each.</p> |
| Wednesday | how to obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem. | <ul style="list-style-type: none"> • identify essential nutrients that organisms need — specifically carbon (C), nitrogen (N), and phosphorus (P) — and their major organic and inorganic forms. • describe major reservoirs of C, N, and P, and identify the processes that move the nutrients between these reservoirs. | Do Now: Why is too much nitrogen and phosphorus bad for the environment? | Nutrient Cycling in the Serengeti (Online interactive) | Students will submit worksheets in bin for teacher review and feedback. |

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| Thursday | how to obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem. | Review | Do Now: Match the term to the correct location on the Nitrogen Cycle Redistribute yesterday's worksheets. | Ride the Biogeochemical Cycles (Interactive path tracker) | Students can complete the Nutrient Cycling in the Serengeti if needed. Exit Ticket: Survey – How prepared are you for our upcoming assessment (Thumbs Up, Down, Sideways for each cycle). |
| Friday | how to obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem. | demonstrate mastery of biogeochemical cycles. | Do Now: Technology Check | Student/Teacher Q & A | Assessment – Biogeochemical Cycles |

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