ARC Week at Glance – Jackson (S1, W3)

Topic: Unit 1: The Living World – Ecosystems Course: AP Environmental Science Grade: 9 Dates: 8/18 – 8/22

	Learning Target (I am learning…)	Criteria for Success (I can…)	Activation/ Instruction	Collaboration/ Guided Practice	Independent Learning/ Assessment
			*(Include at least one/two formatives*in any part of the lesson as needed)*		
Monday	to describe environmental concepts and processes.	explain how the availability of resources influences species interactions.	• Do Now – Daily FRQ for Experimental Design • Reminder of Classroom Expectations and Routines • Join AP Classroom • Lab Safety reminders • Access eTextbook (Pearson) • Weekly Walkthrough (Canvas) • Explain the "Flipped Classroom" structure	Slides and flipped notes on 1.1 – Introduction to Ecosystems Whiteboard • Ecological Organization • Biotic vs. Abiotic • Symbiotic Relationships	• Questions and Feedback • Exit Ticket: Symbiotic Relationship (Practice) • HW – Flipped Notes 1.2, 1.3
Tuesday	to describe environmental concepts and processes.	describe the global distribution and principal environmental aspects of terrestrial and aquatic biomes.	Do Now: Daily FRQ for 1.1 Writing Activity - Identify a video from the scavenger hunt assignment that resonated with you and explain why. (Discuss content as a class.)	• Slides and flipped notes for 1.2 Terrestrial Biomes and 1.3 Aquatic Biomes • World Map Coloring Activity - color and label at least 2 key regions for each aquatic biome.	• Slides on distinguishing between the various Terrestrial Biomes • HW – Flipped Notes 1.4
Wednesday	to describe environmental concepts and processes.	interpret data from climatograms to determine which biome it represents.	Do Now: Daily FRQ for 1.2	• Terrestrial Biome Sorting Game (in lab groups)	• Answer Key slides for immediate feedback. • HW – Flipped Notes 1.5
Thursday	to describe environmental concepts and processes.	explain the steps and reservoir interactions in the carbon cycle.	Do Now: Daily FRQ for 1.3	• Slides and flipped notes for 1.4 The Carbon Cycle • Carbon Cycle Game	• Complete the Carbon Cycle section of the Know Your Cycles! Table. • HW – Flipped Notes 1.6

Friday	to describe environmental concepts and processes.	explain the steps and reservoir interactions in the nitrogen cycle.	Do Now: Daily FRQ for 1.4	• Slides and flipped notes for 1.5 The Nitrogen Cycle • Nitrogen Cycle Drawings	• Complete the Nitrogen Cycle section of the Know Your Cycles! Table. • HW – Catch up on any missing notes or assignments.

Additional Info: **Minor Grade** **Major Grade** **Course materials and resources are available in Canvas.**

ARC Week at Glance – Jackson (S1, W3)

Topic: Unit 1: Atoms Course: Chemistry Grade: 11 Dates: 8/18 – 8/22

	Learning Target (I am learning …)	Criteria for Success (I can…)	Activation/ Instruction	Collaboration/ Guided Practice	Independent Learning/ Assessment
			*(Include at least one/two formatives*in any part of the lesson as needed)*		
Monday	about the use of the modern atomic theory and periodic law to explain the characteristics of atoms and elements.	analyze data to calculate the relative atomic mass of Vegium.	• Do Now – Background knowledge check on the scientific method (steps to consider when conducting an experiment) •	Vegium Lab (calculations)	• Lab Discussion (T-P-S) • Turn in lab • Canvas walkthrough Lab Safety (need contacts; test online retake to earn a 5 by Friday 3:10p)
Tuesday	about the use of the modern atomic theory and periodic law to explain the characteristics of atoms and elements.	calculate the quantity of subatomic quantities in an unstable atom. review for my assessment.	Do Now – How many isotopes are present in this sample? What is the total mass of the sample. Calculate RAM using a quantity rather than a percentage.	We Do / You Do – How to determine the charge of an atom (stable vs unstable) on Promethean.	Vegium Lab Quiz Submit Vegium Lab in Canvas Survey class to see which topics students need more practice with. Review quiz via Quizizz
Wednesday	about the use of the modern atomic theory and periodic law to explain the characteristics of atoms and elements.	review for my assessment (History of Atomic Theory and Subatomic Particles).	• Do Now – Practice: element, atomic number, protons, neutron, electron.	Review Items – Day 1 (We Do) • History of Atomic Theory • Subatomic articles • Stable/Unstable Atoms	Students are to solve the remaining items independently, prior to us discussing the items as a class (You Do).
Thursday	about the use of the modern atomic theory and periodic law to explain the characteristics of atoms and elements.	review for my assessment (Isotopes and Relative Atomic Mass).	• Do Now – Practice: element, atomic number, protons, neutron, electron with an unstable element.	Review Items – Day 2 (We Do) • Isotopes • Relative Atomic Mass	Students are to solve the remaining items independently, prior to us discussing the items as a class (You Do).
Friday	about the use of the modern atomic theory and periodic law to explain the characteristics of atoms and elements.	demonstrate mastery of atomic theory and the development of the atom.	• Do Now: Student-Teacher Q&A (Students with questions will write their name on the whiteboard before the bell rings so teacher can ask them to share their questions).	Teacher will address questions from students prior to the assessment.	Unit 1 Exam – Part A • Atomic Theory • Subatomic articles • Isotopes • Relative Atomic Mass • Stable/Unstable Atoms

Additional Info: **Minor Grade** **Major Grade** **Course materials and resources are available in Canvas.**

ARC Week at Glance – Jackson (S1, W3)

Topic: Unit 1: Planet Earth Course: Environmental Science Grade: 9 Dates: 8/18 – 8/22

	Learning Target (I am learning…)	Criteria for Success (I can…)	Activation/ Instruction	Collaboration/ Guided Practice	Independent Learning/ Assessment
			*(Include at least one/two formatives*in any part of the lesson as needed)*		
Monday	to develop and use a model based on the Laws of Thermodynamics to predict energy transfers throughout an ecosystem (food chains, food webs, and trophic levels).	review for my assessment. (Ecological Organization)	Do Now – Groups will be given a rubric and will have 15 minutes to review their poster and prepare for their presentation.	Kahoot on Ecological Organization (practice Quiz after presentations)	Group Presentations on Biomes
Tuesday	to develop and use a model based on the Laws of Thermodynamics to predict energy transfers throughout an ecosystem (food chains, food webs, and trophic levels).	demonstrate mastery of ecological organization.	Do Now: Card Sort – Ecological Organization (review prior to assessment)	Student-Teacher Q&A (field questions from students prior to the assessment) Technology Check. Communicate assessment expectation and procedures.	Assessment: Ecological Organization Lab Safety Test (available for make-up opportunity) Worksheet on Ecosystems
Wednesday	to develop and use a model based on the Laws of Thermodynamics to predict energy transfers throughout an ecosystem (food chains, food webs, and trophic levels).	define autotroph, heterotroph, and saprotroph. define trophic levels and provide examples of organisms at each level. distinguish between various symbiotic relationships.	Do Now: Review of the Biological Levels of Organization.	Fillable notes on Energy in Ecosystems (Part 1) Group Whiteboard Activity: • Guess Who? (symbiotic relationships) • Students will be given a Biome and asked to research autotrophs, heterotrophs, and saprotrophs that are commonly found in that location and provide details and illustration on the whiteboards.	Autotroph, Heterotroph, and Saprotroph

Thursday	to develop and use a model based on the Laws of Thermodynamics to predict energy transfers throughout an ecosystem (food chains, food webs, and trophic levels).	design a food chain and food web and explain how energy is transferred throughout. Describe energy flow and perform calculations using the 10% Rule.	Do Now: Create your own pyramid of trophic levels (minimum of 5 levels)	Fillable notes on Energy in Ecosystems (Part 2). Whiteboard – Create and Explain Food Webs vs. Food Chains OR Gizmo: Food Chain / Food Web Activity: Students will be given an organism and must create a food chain and food web incorporating that organism in each.	Discuss Food Chain / Food Web Activity as a class. Cold call students/groups to share.
Friday	to develop and use a model based on the Laws of Thermodynamics to predict energy transfers throughout an ecosystem (food chains, food webs, and trophic levels).	restore the ecosystem of a park back to normal through manipulating food chains and webs, and human factors.	Do Now: Make a 5-level food chain using at least three of the organisms listed.	Gizmo: Ecosystems – STEM Case OR Food Chains and Food Webs Activity (What Are Some Parts of a Food Chain and a Food Web?)	Group Analysis Worksheet OR Food Chains and Food Webs Activity Packet (Illustrations and Response Items)

Additional Info: **Minor Grade** **Major Grade** **Course materials and resources are available in Canvas.**