

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 1
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes:	Objective: NO SCHOOL Lesson Overview:	Academic Standards:
Tuesday	Notes: Materials: classroom, planners	Objective: Students will be introduced to science 7 classroom and general course topics Student will be introduced to student planner pages Lesson Overview: Roll, seating, materials in room Wrap-up: Student discussion of what was discussed	Academic Standards: NONE
Wednesday	Notes: science word search, instructions for log-in on board.	Objective: Students will receive school computers, Class will discuss rules and expectations, science word search for students finished with computer checkout and log-in Lesson Overview: Opening: Students will lead discussion on what was learned the previous day. Students will be called out alphabetically to get computers. Students will practice logging in and finding appropriate school websites. Wrap up: Student-led discussion of what was discussed today	Academic Standards: NONE
Thursday	Notes: Materials; rights/rules/responsibilities worksheet	Objective: Students will understand the similarities and differences between rules, rights and responsibilities and expectations. Lesson Overview: Students will lead discussion on what was learned the previous day. Class discussion on reasons for rules. What are the expectations for children's rights? What are the responsibilities associated with these rights? Do matching worksheet, discuss how class rules relate to rights and responsibilities of young adults. Wrap up: Student-led discussion of what was discussed today	Academic Standards: NONE

Friday	Notes: Materials, Canvas quiz	Objective: Students will demonstrate understanding of what was discussed this week. Lesson Overview: Students will lead discussion on what was learned the previous day. Review of Class rules, rights and responsibilities. Discussion of how this first week went for everyone. Wrap up: Student-led discussion of what was discussed today	Academic Standards: NONE
--------	----------------------------------	--	-----------------------------

WEEK 2

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 2
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: chess boards	Objective: Students will demonstrate an understanding of the ways chess pieces can move. Students will articulate the reasons behind learning and playing chess Lesson Overview: Students set up chessboards guided by teacher. Chess rules, moves video, Practice exercises. Wrap-up Student-led discussion of how chess pieces move and reasons for chess	Academic Standards: NONE
Tuesday	Notes: Chess boards, canvas quiz	Objective: Students will demonstrate understanding of basic chess through Canvas quiz and practice exercises Lesson Overview: Introduction: student led discussion of chess piece moves and reasons for playing chess. Introduction of openings video, practice games. Wrap-up: student-led discussion of moves and reasons to play chess	Academic Standards: NONE
Wednesday	Notes: Canvas pre-test	Objective: Students will demonstrate pre-test knowledge of science topics to be covered in class Lesson Overview: Introduction: student led-discussion on what they expect to learn in life science this year. Part one of pre-test. Wrap-up: student-led discussion of some of the things they felt were interesting in the questions in part 1	Academic Standards: NONE

Thursday	Notes: Canvas pre-test	Objective: Students will demonstrate pre-test knowledge of science topics to be covered in class Lesson Overview: Introduction: student led-discussion on what they now expect to learn in life science this year. Part two of pre-test. Wrap-up: student-led discussion of some of the things they felt were interesting in the questions in part 2	Academic Standards: NONE
Friday	Notes:	Objective: NO SCHOOL Lesson Overview:	Academic Standards: NONE

WEEK 3

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 3
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes:	Objective: NO SCHOOL Lesson Overview:	Academic Standards:
Tuesday	Notes: Canvas discussion	Objective: Students will demonstrate the ability to participate in Canvas discussions. Lesson Overview: Teacher led discussion on personal introduction. Students use Canvas to introduce themselves and respond to introductions of others Wrap-up: student led discussion on surprising facts they learned about others	Academic Standards: NONE

Wednesday	Notes: Canvas assignment	Objective: Students will demonstrate their ability to use Canvas to submit work Lesson Overview: Introduction: student-led discussion on use of Canvas last year. Pros and cons. Demonstrate what is available on Canvas. Students submit written Canvas assignment Wrap-up: student led discussion	Academic Standards: NONE
Thursday	Notes: Canvas quiz	Objective: Students will demonstrate their knowledge of Canvas to take short quizzes. Students will demonstrate their ability to use Chat GPT Lesson Overview: Introduction: student led discussion about Chat GPT. Examples and instructions on student use of Chatbot. Wrap-up: student led discussion on Chat GPT	Academic Standards: NONE
Friday	Notes: Canvas quiz	Objective: Students will demonstrate knowledge of concepts presented this week. Lesson Overview: Introduction: student-led discussion on weekly concepts. Weekly quiz, chess in free time	Academic Standards: NONE

WEEK 4

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 4
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Restating quiz	Objective: Students will demonstrate the ability to restate the questions when answering prompts Lesson Overview: short quiz on restating question, discussion and lesson on restating questions, Canvas assignment. Wrap-up: student-led discussion	Academic Standards:

Tuesday	Notes: Canvas	Objective: Students will demonstrate the ability to restate the questions when answering prompts Lesson Overview: intro: Student-led discussion. Practice restating the question, Chat GPT prompt demonstration. Canvas quiz Wrap-up student-led discussion	Academic Standards:
Wednesday	Notes: Canvas lesson, video	Objective: Students will demonstrate the ability to prepare for learning from a video and obtaining information from a video Lesson Overview: intro: Student-led discussion on restating the questions in class. Instruction on learning from a video. Watch video and take notes. Canvas assignment. Wrap-up student-led discussion Student-led discussion on how learning from You-tube videos and be helpful.	Academic Standards:
Thursday	Notes: Canvas lesson, Chat GPT	Objective: Students will demonstrate the ability to obtain information from videos. Lesson Overview: intro: Student-led discussion on learning from videos. Review and demonstration of use of Chat GPT to obtain information. Canvas quiz, Canvas discussion Wrap-up student-led discussion on use of Chat GPT and how they feel about the information they learned today.	Academic Standards:
Friday	Notes: Friday quiz, Canvas	Objective: Students will demonstrate their understanding of concepts presented this week. Grade check. Lesson Overview: intro: Student-led discussion Wrap-up student-led discussion using videos and use of Chat GPT	Academic Standards:

WEEK 5

Name: GODWIN	Grading Quarter: 1	Week Beginning: WEEK 5
School Year: 2023-24	Subject: SCIENCE 7	

Monday	Notes: Canvas assignment	Objective: Students will demonstrate an understanding of the differences and similarities of paraphrasing and plagiarism Lesson Overview: video, lesson on plagiarism. Practice activity of gathering information and paraphrasing that information Wrap-up: student-led discussion on examples of what is/is not plagiarism	Academic Standards: 7.W.7
Tuesday	Notes: Canvas quiz	Objective: Students will demonstrate an understanding of the differences and similarities of paraphrasing and plagiarism Lesson Overview: intro: Student-led discussion on plagiarism. Review lesson, Canvas quiz Wrap-up student-led discussion	Academic Standards: 7.W.7 7.SL.4
Wednesday	Notes: Canvas assignment	Objective: Students will explore different methods of researching for reports Lesson Overview: intro: Student-led discussion on experiences with doing reports in the past. Instructions on research methods, student research over 2 days. Wrap-up student-led discussion on things they learned about their animals today	Academic Standards: 7.W.7 7.W.8 7.W.9
Thursday	Notes: Assignment cont. Friday quiz	Objective: Students will finalize animal research Lesson Overview: intro: Student-led discussion on their progress with the research so far. Wrap-up: Weekly quiz, no class tomorrow	Academic Standards: 7.SL.4
Friday	Notes:	Objective: NO SCHOOL GRADE CHECK FOR FIRST 1/8TH Lesson Overview:	Academic Standards:

WEEK 6

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 6
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Labor Day	Labor day, no school	Academic Standards:
Tuesday	Notes: Student presentations of reports	Objective: Students will demonstrate knowledge of their chosen animal through class presentations Lesson Overview: Student Power Point presentations	Academic Standards: 7.SL.4 7.SL.5 7.SL.6
Wednesday	Notes: Finish presentations Begin Logical thinking.	Objective: Students will be able to solve simple matrix logic problems Lesson Overview: intro: Student-led discussion on experiences with doing reports in the past. Instructions on research methods, student research over 2 days. Wrap-up student-led discussion on things they learned about their animals to	Academic Standards: 7.SL.4 7.SL.5 7.SL.6
Thursday	Notes: Logic puzzle packets cont.	Objective: Students will be able to solve simple matrix logic problems Lesson Overview: intro: review Matrix logic or logic lesson depending on class size and length of student presentations Wednesday	Academic Standards:
Friday	Notes: NEXIS Collation preseatation	Objective: Lesson Overview: Undetermined. NEXIS has their own curriculum	Academic Standards:

WEEK 7

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 7
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Branches of science Canvas assignment	Objective: Students will be able to classify science subjects by branch Lesson Overview: video, lesson on branches of science Wrap-up: Canvas written assignment	Academic Standards: U1
Tuesday	Notes: review branches Canvas quiz	Objective: Students will be able to classify jobs pathways according to science branch Lesson Overview: intro: Student-led discussion on types of science Review lesson, Canvas quiz Wrap-up student-led discussion	Academic Standards: U1
Wednesday	Notes: patterns Canvas assignment	Objective: Students will explore different types of patterning in science Lesson Overview: intro: Student-led discussion on patterns displayed on tables.	Academic Standards: U1
Thursday	Notes: review patterns types Patterns quiz	Objective: Students will identify pattern types in the natural world Lesson Overview: intro: Student-led discussion on their progress with the research so far. Wrap-up: Canvas quiz	Academic Standards: U1

Friday	Notes: Friday quiz	Objective: Students will demonstrate knowledge of weekly concepts and understanding of current grade and missing work Lesson Overview: Student grade checks, missing work check and weekly wrap-up	Academic Standards:
--------	-----------------------	---	---------------------

WEEK 8

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 8
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Camouflage Canvas assignment	Objective: Students will be able to use visual patterning to classify camouflage types Lesson Overview: video, lesson on camouflage Wrap-up: Canvas written assignment	Academic Standards: 6.L2U1.13 Cross-cutting concepts: patterns
Tuesday	Notes: review visual patterns: camouflage Canvas quiz	Objective: Students will be able to classify examples of camouflage from examples in nature Lesson Overview: intro: Student-led discussion on types of camouflage Review lesson, Canvas quiz Wrap-up student-led discussion	Academic Standards: 6.L2U1.13 Cross-cutting concepts: patterns
Wednesday	Intro skeletons Bill Nye video	Objective: Students will be able to state the uses for the skeleton Lesson Overview: intro: observe class skeleton Watch Bill Nye video and answer questions	Academic Standards: Cross-cutting concepts: structure and function

Thursday	Notes: review skeletons Construct skeleton	Objective: Students will create a skeleton and differentiate between axial and appendicular skeleton Lesson Overview: intro: Student-led discussion on their progress with the research so far. Wrap-up: finish creating skeleton	Academic Standards: Cross-cutting concepts: structure and function
Friday	Notes: Friday quiz	Objective: Students will demonstrate knowledge of weekly concepts and understanding of current grade and missing work Lesson Overview: Student grade checks, missing work check and weekly wrap-up	Academic Standards:

WEEK 9

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 9
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Skeleton Lable paper skeletons	Objective: Students will be able to identify major skeletal bones Lesson Overview: video, lesson on skeletons Wrap-up: Canvas written assignment	Academic Standards: Cross-cutting concepts: structure and function
Tuesday	Notes: review skeletons, models Canvas quiz	Objective: Students will be able to name bones on skeleton models Lesson Overview: intro: build plastic skeleton models Review lesson, Canvas quiz Wrap-up student-led discussion	Academic Standards: Cross-cutting concepts: structure and function

Wednesday	Leaves	Objective: Students will collect leaves for dichotomous key practice Lesson Overview: intro: observe class skeleton Watch Bill Nye video and answer questions	Academic Standards: Cross-cutting concepts: patterns
Thursday	Notes: review leaves	Objective: Students will preserve and press leaves, canvas quiz Lesson Overview: intro: sort leaves by similarities Wrap-up: finish pressing leaves	Academic Standards: Cross-cutting concepts: structure and function
Friday	Notes: Friday quiz	Objective: Students will demonstrate knowledge of weekly concepts and understanding of current grade and missing work Lesson Overview: Student grade checks, missing work check and weekly wrap-up	Academic Standards:

WEEK 10

Name: GODWIN		Grading Quarter: 1	Week Beginning: WEEK 10
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Stereoscope Canvas quiz	Objective: Students will be able to identify parts and procedures of the stereoscope Lesson Overview: video, lesson on skeletons Wrap-up: Canvas written assignment Quiz	Academic Standards: Cross-cutting concepts: Patterns

Tuesday	Use stereoscope	Objective: Students will be use a stereoscope to observe items Lesson Overview: intro: review parts of the stereoscope Spend time using stereoscopes Wrap-up student drawings	Academic Standards: patterns
Wednesday	Otes: Life cycles	Objective: Students will be able to order parts of animal life cycles Lesson Overview: Notes on life cycles, sequential patterns	Academic Standards: Cross-cutting concepts: patterns
Thursday	Canvas quiz	Objective: Students will describe life cycles for their animal, canvas quiz Lesson Overview: intro: finish any missing work	Academic Standards: Cross-cutting concepts: patterns
Friday	NO SCHOOL	NO SCHOOL END OF 9 WEEKS FALL BREAK	Academic Standards:

Quarter 2, WEEK 11

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 11
School Year: 2023-24		Subject: SCIENCE 7	
Monday	NO SCHOOL		
Tuesday	Notes: Life cycles	Objective: Students will be able to recognize life cycles as examples of sequential patterns Lesson Overview: intro: review types of patterns discussed so far. Review sequential patterns, give life cycles as example. Life cycle quiz	Academic Standards: patterns
Wednesday	Guest speaker: water tables	Objective: Students will learn about local water sources Lesson Overview: Guest speaker	Academic Standards: Cross-cutting concepts: patterns
Thursday	Canvas written assignment	Objective: Students will describe life cycles for their animal, canvas quiz Lesson Overview: intro: Review of Tuesday's assignment, Written work assignment	Academic Standards: Cross-cutting concepts: patterns

Friday	CAREER DAY	SCHOOL-WIDE CAREER DAY	Academic Standards: Explore careers
--------	------------	------------------------	--

WEEK 12

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 12
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Power Point, Cause and effect Canvas quiz	Objective: Students will be able to differentiate between cause and effect in a sample situation Lesson overview: review pattern types. Cause and effect is the last type. Powerpoint and notes. Canvas quiz	
Tuesday	Notes: none, Canvas written assignment	Objective: Students will be able to write cause and effect statements. Students will learn to color code sentences for cause and effect. Lesson Overview: intro: review yesterday's material. Go over written work expectations. Assignment	Academic Standards: patterns
Wednesday	Notes: Cause and effect, Habitats Canvas quiz	Objective: Students will be able to explain how specific adaptations develop because of the habitat type Lesson Overview: Give examples of different animals and ask why the animals are the way they are. Have class logic through reasons for animal adaptations	Academic Standards: Cross-cutting concepts: patterns 6.L2U3.12 6.L2U1.13

Thursday	Canvas written assignment	Objective: Students will be able to identify the habitat of an animal based on its adaptations Lesson Overview: intro: Review yesterday's lesson, go over written work expectations, written assignment	Academic Standards: Cross-cutting concepts: patterns
Friday	Friday wrap-up	Friday quiz. Students will self-evaluate grade and performance this week. Students will demonstrate understanding of the concepts for the week	Academic Standards:

WEEK 13

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 13	
School Year: 2023-24		Subject: SCIENCE 7		
Monday	RED RIBBON WEEK: INTRODUCTION	Objective: students will be able to explain the history of red ribbon week. Students will create a personal Natural High poster		Academic Standards: patterns
Tuesday	RED RIBBON WEEK: ALCOHOL	Objective: Students will be able to verbalize ways to say “no” when approached about drinking. Students will understand the dangers associated with drinking		Academic Standards: patterns

Wednesday	RED RIBBON WEEK VAPING, SMOKING, MARIJUANA	Objective: Students will be able to differentiate between vaping, huffing, smoking and marijuana use. Students will to a service project and will breathe fresh air	Academic Standards:
Thursday	RED RIBBON WEEK SYNTHITIC DRUGS	Objective: Students will summarize what was learned this week	Academic Standards:
Friday	RED RIBBON WEEK DEA SPEAKER	Students will attend a DEA presentation on Red ribbon week topics	Academic Standards:

WEEK 14

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 13
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Cause and effect study: Skin color Canvas quiz	Objective: students will be able to explain the cause/effect reasons behind human skin color variation	Academic Standards: patterns

Tuesday	Notes: none. Written Canvas assignment	Objective: Students will be able to identify reasons for skin color variation in humans and animals Lesson Overview: intro: review yesterday's work. Canvas written assignment	Academic Standards: patterns
Wednesday	Notes: Independent and Dependent variables as they relate to cause and effect Canvas quiz	Objective: Students will be able to find independent and dependent variables given a situation Lesson Overview: Review cause and effect. Translate cause to independent variable and effect to dependent variable	Academic Standards: Cross-cutting concepts: patterns
Thursday	Canvas written assignment	Objective: Students will evaluate scientific experiments to identify independent, dependent and control variables Lesson Overview: intro: Review yesterday's lesson. Add control variables. Written assignment	Academic Standards: Cross-cutting concepts: patterns
Friday	Veteran's day off	Verterans day off	Academic Standards:

WEEK 15

Name: GODWIN	Grading Quarter: 2	Week Beginning: WEEK 14
School Year: 2023-24	Subject: SCIENCE 7	

Monday	Notes: line and bar graphs, canvas quiz	Objective: Students will be able to tell when is is appropriate to use a line graph and when to make a bar graph. Students will create both a line and a bar graph Lesson Overview: intro: review of independent and dependent variables. Relate these to graphing, notes, canvas quiz	
Tuesday	Notes: None, written assignment, canvas	Objective: Students will be able to great a simple line and bar graph Lesson Overview: intro: review graph types, create sample graphs	Academic Standards: patterns
Wednesday	Graphing on the computer	Objective: Students will be able to independently create both a line and bar graph on the computer using Kid's Zone Lesson Overview: Teacher models website use, students create graphs	Academic Standards: Cross-cutting concepts: patterns
Thursday	Notes: Scatter plots, notes Canvas quiz	Objective: Students will be able to interpret a scatter plot to find positive, negative and no correlation Lesson Overview: intro: sample scatter plots and evaluation. Canvas quiz	Academic Standards: Cross-cutting concepts: patterns
Friday	Friday quiz	Friday quiz. Students will self-evaluate grade and performance this week. Students will demonstrate understanding of the concepts for the week	Academic Standards:

WEEK 16

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 15
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Scatter plot written assignment and graph creation	Students will create a simple scatter plot and evaluate correlation	
Tuesday	Graphing review and computer creation of scatter plot	Objective: Students will be able to Lesson Overview: intro: r	Academic Standards: patterns
Wednesday	THANKSGIVING BREAK		
Thursday	THANKSGIVING BREAK		
Friday	THANKSGIVING BREAK		

WEEK 17

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 16
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Notes: Grouping in science Canvas quiz	Objective: Students will be able to group objects according to similar characteristics Lesson overview Hands on sorting, notes, quiz	Academic Standards: Patterns ESL #2
Tuesday	Written assignment	Objective: Students will be able to group objects according to their similarities Lesson Overview: review of notes, hands on sorting #2, written assignment	Academic Standards: patterns
Wednesday	Notes: Kingdoms of living things.	Objective: Students will be able to identify living things according to characteristics. Students will know the characteristics of the 5 kingdom classification system Lesson Overview: Hands-on sorting #3 Notes on Kingdoms Canvas quiz	Academic Standards: Cross-cutting concepts: patterns
Thursday	Canvas written assignment	Objective: Students will be able to sort living things into the 4 kingdoms. Lesson Overview: intro: Hands-on sorting #4 Review characteristics of the 5 kingdom classification system, written system	Academic Standards: Cross-cutting concepts: patterns

Friday	Friday Wrap-up quiz	Students will demonstrate knowledge of the week's material. Students will check grades, check for missing work, do wrap-up knowledge check and create a relevant graph	Academic Standards:
--------	---------------------	---	---------------------

WEEK 18

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 17
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Using Venn Diagrams Notes, practice sorting into Venn Diagrams	Objective: Students will be able to read and create Venn Diagrams Lesson overview: Sorting #5, sort into two groups and find similarities between the two groups Notes, Canvas quiz, math connection	Standards: Patterning ELL 7.W.1
Tuesday	Using Venn diagrams Written assignment	Objective: Students will be able to read and create Venn Diagrams Lesson Overview: review from yesterday's lesson, practice drawing diagram, Written assignment	Academic Standards: patterns ELL 7.W.1
Wednesday	Using Dichotomous keys	Objective: Students will be able to use a simple Dichotomous key to identify items Lesson Overview: Paly 20Q as a class, modeling of using keys, use keys as a class, Canvas quiz	Academic Standards: Cross-cutting concepts: patterns ELL 7.W.1

Thursday	Bill Nye Biodiversity video and quiz	Objective: Students will understand the term “Biodiversity” and will be able to give examples. Lesson Overview: Substitute today. Watch video and answer questions as they watch video	Academic Standards: Cross-cutting concepts: patterns ELL 7.W.1
Friday	NEXIS	NEXIS lesson	Academic Standards:

WEEK 19

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 18
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Writing Dichotomous keys, notes and quiz	Objective: Students will be able to create a simple Dichotomous key to identify objects Lesson Overview: Review using keys. Notes and practice on creating trees leading to keys, Canvas quiz	Science ELL 7.W.1
Tuesday	Writing keys, written assignment	Objective: Students will be able to write a simple key using a tree as a map Lesson Overview: intro: review steps to creating a key from sorting into groups, making a tree and then making the key. Written assignment	Academic Standards: patterns ELL 7.W.1

Wednesday	Taxonomy of vertebrates	<p>Objective: Students will be able to classify vertebrates into Orders using characteristics</p> <p>Lesson Overview: Intro: simple key to identify the orders of vertebrates, notes on orders, quiz</p>	<p>Academic Standards: Cross-cutting concepts: <u>patterns</u></p> <p><u>ELL 7.W.1</u></p>
Thursday	Taxonomy of vertebrates Canvas written assignment	<p>Objective: Students will be able to classify vertebrates according to characteristics</p> <p>Lesson Overview: intro: Review classes, written assignment.</p>	<p>Academic Standards: Cross-cutting concepts: <u>patterns</u> <u>communication</u></p> <p><u>ELL 7.W.1</u></p>
Friday	Friday quiz	<p>Students will demonstrate knowledge of the week's material.</p> <p>Students will check grades, check for missing work, do wrap-up knowledge check and create a relevant graph</p>	<p>Academic Standards: <u>patterns</u> <u>communication</u></p> <p><u>ELL 7.W.1</u></p>

Name: GODWIN		Grading Quarter: 2	Week Beginning: WEEK 19
School Year: 2023-24		Subject: SCIENCE 7	
Monday	Review for mid-term	Students will work on a cloze review assignment over Semester 1 material	

Tuesday	Mid-term test	Objective: Students will demonstrate knowledge of semester 1 material Lesson Overview: testing whole period. Student will have 2 chances to do questions	Academic Standards: <u>patterns</u> Written responses <u>ELL</u>
Wednesday		FUN DAY	
Thursday		WINTER BREAK	
Friday		WINTER BREAK	

DONE TO HERE

Name: GODWIN	Grading Quarter: 2	Week Beginning: WEEK 18
School Year: 2023-24	Subject: SCIENCE 7	

Monday			
Tuesday	Notes:	Objective: Students will be able to Lesson Overview: intro: r	Academic Standards: patterns
Wednesday	END SEMESTER	Objective: Lesson Overview:	Academic Standards: Cross-cutting concepts: patterns
Thursday	Canvas written assignment CHRISTMAS BREAK?	Objective: Students will Lesson Overview: intro: Review	Academic Standards: Cross-cutting concepts: patterns
Friday	CHRISTMAS BREAK		Academic Standards:

SCOPE AND SEQUENCE: Science 7, BRJHS

SEMESTER ONE: THE BIG PICTURE			
This quarter introduces the main concepts for 7 th grade life science. Patterning is stressed and interwoven into each Cause-and-effect. Course will utilize the 5E model of instruction: Engage, Explore, Explain, Elaborate, Explain.			
Week	Concept(s)	Az State Science Standards ¹	Crosscutting concepts and information ²
1-2	Introduction to learning in Canvas, class pretest, logical thinking		
3-4	Using Canvas and navigating online learning platforms, notetaking, answering questions, learning styles, avoiding plagiarism	7.W.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.	
5-6	Research project, self-guided research, creating presentations, presenting to class. Intro to ecosystems, food chain, observation skills	7.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. 7.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. 7.SL.4 Present claims and findings, emphasizing salient points in a focused, coherent	Interdependent organisms living together in particular e an ecosystem . In a stable ecosystem there are producers (animals) and decomposers , (bacteria and fungi which fe dead organisms).

¹ Arizona State Science Standards, <https://www.azed.gov/standards-practices/k-12standards/standards-science>

² Arizona State Science Standards, <https://www.azed.gov/standards-practices/k-12standards/standards-science>

		<p>manner with pertinent descriptions, appropriate vocabulary, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p>7.SL.5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.</p>	
7-8	What is science, patterns overview, visual patterning in science: camouflage, skeletons	<p>U1: Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised.</p>	<p>The crosscutting concepts identified in <i>A Framework for</i></p> <ul style="list-style-type: none"> • patterns • structure and function • systems and system models
9-10	Repeating patterns: collecting leaves, using a stereoscope Sequential patterns: life cycles		<p>The crosscutting concepts identified in <i>A Framework for</i></p> <ul style="list-style-type: none"> • patterns • structure and function • systems and system models
11-12	Cause and effect patterns: life cycles and growth, adapting to habitats, skin color, variables	<p><u>Develop and use models</u> to demonstrate the interdependence of organisms and their environment including biotic and abiotic factors.</p>	<p>The crosscutting concepts identified in <i>A Framework for</i></p> <ul style="list-style-type: none"> • patterns • cause and effect • structure and function • systems and system models • stability and change <p>Interdependent organisms living together in particular e</p>
13-14	Grouping patterns: food webs, food chains and niches, Venn diagrams, classifying living things	<p>P4: The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event.</p> <p><u>6.L2U3.12Engage in argument from evidence</u> to support a claim about the factors that cause species to change and how humans can impact those factors.</p>	<p>an ecosystem. In a stable ecosystem there are producers (animals) and decomposers, (bacteria and fungi which feed dead organisms). The decomposers produce materials that molecules in the organisms are constantly re-used. At the pass through the ecosystem. When food is used by organisms energy is dissipated as heat but is replaced in the ecosystem being used to produce plant food.</p> <p>Genes are located in the chromosomes of cells, with each two variants of each of many distinct genes. Each distinct production of a specific protein, which in turn affects the human skin color results from the actions of proteins that pigment melanin)</p> <p>Food webs are models that demonstrate how matter and between producers (generally plants and other organisms photosynthesis), consumers, and decomposers as the transfer for food—within an ecosystem. Transfers of matter into</p>

		6.L2U1.13 Develop and use models to demonstrate the interdependence of organisms and their environment including biotic and abiotic factors.	<p>environment occur at every level—for example, when m oxygen captured from the environment, the carbon diox are transferred back to the environment, and ultimately fecal material. Decomposers recycle nutrients from dead the soil in terrestrial environments or to the water in aqu that make up the organisms in an ecosystem are cycled n and nonliving parts of the ecosystem. ^(p. 153-154)</p> <p>In any given ecosystem there is competition among spec the materials they need to live. The persistence of a continued availability in the environment of these energ</p> <p>Organisms and populations of organisms are deper interactions both with other living things and with organisms and population increases are limited by access organisms and populations with similar requirements for resources may compete with each other for limited consequently constrains their growth and reproduction. S may reduce the number of organisms or eliminate wh</p> <p>Mutually beneficial interactions, in contrast, may becom organism requires the other for survival. A healthy ecos species of different types are each able to meet their ne life. Ecosystems are dynamic in nature; their charac Disruptions to any physical or biological component of ar all of its populations. ^{4 (p. 155)}</p>
15-16	Demonstrating patterning with graphs: bar, line and scatter plot, creating graphs in the computer, interpreting graphs		<p>The crosscutting concepts identified in <i>A Framework for</i></p> <ul style="list-style-type: none"> • patterns • cause and effect • systems and system models • scale, proportion, and quantity
17-18	Using grouping for identification and classification: dichotomous keys QUARTER ONE BENCHMARK TEST		<p>The crosscutting concepts identified in <i>A Framework for</i></p> <ul style="list-style-type: none"> • patterns • structure and function

SEMESTER TWO: THE DETAILS			
This quarter introduces the details, “how”, of life science. Cause and effect patterning is stressed and interwoven into			
Week	Concept(s)	Standard(s)	Crosscutting concepts and information
1-2	Introduction to atoms, molecules and compounds, chemistry of life: photosynthesis and respiration	<p>P1: All matter in the Universe is made of very small particles.</p> <p>6.P1U1.3 Develop and use models to represent that matter is made of smaller particles called atoms</p> <p>6.L2U1.14 Construct a model that shows the cycling of matter and flow of energy in ecosystems.</p> <p>8.L2U1.12 Construct an explanation for how some plant cells convert light energy into food energy.</p> <p>8.P1U1.1 Develop and use a model to demonstrate that atoms and molecules can be combined or rearranged in chemical reactions to form new</p>	<p>The crosscutting concepts identified in <i>A Framework for</i></p> <ul style="list-style-type: none"> • patterns • energy and matter <p>If a substance could be divided into smaller and smaller p made of very, very small particles, smaller than can be se materials, anywhere in the universe, living and non-living number of basic ‘building blocks’ called atoms, of which t kinds. The properties of different materials can be explain the atoms and groups of atoms of which they are made All materials, anywhere in the universe, living and non-liv numbers of basic ‘building blocks’ called atoms, of which kinds. Substances made of only one kind of atom are call different elements can combine together to form a very l chemical reaction involves a rearrangement of the atoms form new substances, while the total amount of matter r</p>
3-4	Chemistry of food, internal organs, body systems		

		<p>compounds with the total number of each type of atom conserved.</p> <p>L2: Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms.</p> <p>6.L2U1.14 Construct a model that shows the cycling of matter and flow of energy in ecosystems.</p> <p>7.L1U1.9 Develop and use a model to explain how cells, tissues, and organ systems maintain life (animals).</p> <p>7.L1U1.11 Construct an explanation for how organisms maintain internal stability and evaluate the effect of the external factors on organisms' internal stability.</p>	<p>process, the atoms that make up the original substances molecules, and these new substances have different properties. The total number of each type of atom is conserved and does not change. Some chemical reactions release energy, others absorb energy. In most cases, the energy needed for life is ultimately derived from photosynthesis (although in some ecologically important reactions involving inorganic chemicals in the absence of sunlight). Plants, algae (including phytoplankton), and other energy-capturing organisms use sunlight, water and carbon dioxide to facilitate photosynthesis, which forms plant matter, releases oxygen, and maintains plant life.</p>
5-6	Using a microscope, cells, single celled organisms, plant/animal cell	<p>L1: Organisms are organized on a cellular basis and have a finite life span.</p> <p>7.L1U1.8 Obtain, evaluate, and communicate information to provide evidence that all living things are made of cells, cells come from existing cells, and cells are the basic structural and functional unit of all living things.</p> <p>7.L1U1.9 Construct an explanation to demonstrate the relationship between major cell structures and cell functions (plant and animal).</p>	<p>The crosscutting concepts identified in <i>A Framework for K-12 Science Education</i> are:</p> <ul style="list-style-type: none"> • patterns • structure and function • systems and system models • scale, proportion, and quantity <p>All living organisms are made of one or more cells, which can be seen with a microscope. All the basic processes of life are the results of the actions of cells. Cells divide to replace aging cells and to make more cells. Food is the energy source they need in order to carry out their life processes. Some cells in multicellular organisms, as well as carrying out basic life functions, do, are specialized; for example, muscle, blood and nerve cells perform specific functions within the organism. Cells are often aggregated to form tissues, organs, and organs into organ systems. In the human body, organs perform functions as respiration, digestion, elimination of waste and excretion. A circulatory system takes material needed by cells to all parts of the body and removes soluble waste to the urinary system. Stem cells, which are undifferentiated, are repairing tissues by being programmed for different functions. Cells must maintain certain conditions. Both single cell and multi-cellular organisms must maintain temperature and acidity within certain limits to survive.² (p. 26) Life is the quality that distinguishes living things from nonliving objects or those that have died. While a simple definition is difficult to capture, all living things - that is to say all organisms - share common aspects of their structure and functioning.⁴ (p. 143) Life is organized and built on a hierarchical structure, with each level building on the one for the next, from the chemical foundation of elements and molecules to that of individual organisms to species and populations living in communities and ecosystems. Organisms range in composition from a single-celled organism (microorganisms) to multicellular organisms, in which different types of cells work together to form systems of tissues and organs (e.g., respiratory, nervous, musculoskeletal), that are specialized to perform specific functions. Within cells, special structures are responsible for particular functions. The cell membrane forms the boundary that controls what enters and leaves the cell. (Boundary: At this grade level, only a few major cell structures are introduced.)⁴ (p. 144) Organisms respond to stimuli from their environment to maintain their internal environment through homeostasis.</p>
7-8	Cell division, meiosis and mitosis, DNA	<p>L3: Genetic information is passed down from one generation of organisms to another.</p> <p>8.L3U1.9 Construct an explanation of how genetic variations occur in offspring through the inheritance of traits or through mutations.</p> <p>8.L3U1.9 Communicate how advancements in technology have</p>	<p>The crosscutting concepts identified in <i>A Framework for K-12 Science Education</i> are:</p> <ul style="list-style-type: none"> • patterns • cause and effect • structure and function • systems and system models • stability and change <p>Genes are located in the chromosomes of cells, with each cell containing two variants of each of many distinct genes. Each distinct gene codes for the production of a specific protein, which in turn affects the function of the cell. Human skin color results from the actions of proteins that</p>
9-10	Reproduction in living things, inheritance, genetics		

		<p>furthered the field of genetic research and use evidence to support an argument about the positive and negative effects of genetic research on human lives.</p>	<p>pigment melanin). Changes (mutations) to genes can result in variations which can affect the structures and functions of the organism. Sexual reproduction provides for transmission of genetic information through egg and sperm cells. These cells, which contain one parent's chromosome pair, unite to form a new individual that possesses one instance of each parent's chromosome pair (homologous pair). Variations of inherited traits between parent and offspring are differences that result from the subset of chromosomes (homologous pair) or (more rarely) from mutations. (Boundary: The stress is on the transmission in reproduction, not the mechanism.) ⁴ (pp. 155-156) In sexually reproducing organisms, each parent contributes half of the genes acquired from their offspring. Individuals have two of each chromosome and two of each gene, one acquired from each parent. These versions may differ from each other. In addition to variations that arise from inheritance, information can be altered because of mutations. Though mutations lead to changes to the structure and function of proteins. Some changes are harmful, and some neutral to the organism. ⁴ (p. 160) Genetic variations among individuals in a population give rise to differences in surviving and reproducing in their environment. This is natural selection, which leads to the predominance of certain traits in a population over others.</p>
11-12	Change over time, fossil evidence of change, geologic time, natural selection	<p>6.L2U3.11 Engage in argument from evidence to support a claim about the factors that cause species to change and how humans can impact those factors.</p> <p>8.L4U1.11 Develop and use a model to explain how natural selection may lead to increases and decreases of specific traits in populations over time.</p>	<p>The crosscutting concepts identified in <i>A Framework for K-12 Science Education</i> are:</p> <ul style="list-style-type: none"> • patterns • cause and effect • structure and function • systems and system models • stability and change <p>Genetic variations among individuals in a population give rise to differences in surviving and reproducing in their environment. This is natural selection, which leads to the predominance of certain traits in a population over others. In artificial selection, humans have the capacity to select for characteristics of organisms by selective breeding. One can select for traits determined by genes, which are then passed on to offspring. Over time, natural selection acting over generations is one important mechanism of change over time in response to changes in environment. Natural selection support successful survival and reproduction in the new environment; those that do not become less common. Thus, over time, the population changes. In separated populations with different environments, if they be large enough that the populations, provided they remain in reproductive isolation), evolve to become separate species. The wide range of existing life forms that have adapted to the environment, from terrestrial to marine ecosystems. Biodiversity includes a wide range of species, in addition to species variation in different habitats (e.g., forests, grasslands, wetlands). Changes in biodiversity can have impacts, such as food, energy, and medicines, as well as ecosystem services. ⁴ (p. 167) To obtain the water, light, minerals and space they need to survive, organisms to particular locations characterized by climatic, geological and biological conditions. ²⁷ The sorting and recombining of genetic material when populations are formed and then fuse results in an immense variety of populations and in differences that can be inherited from one generation to the next. The potential for natural selection as a result of some variations that are better adapted to certain environmental conditions. ² (p. 28)</p>
13-14	Evolution by natural selection	<p>L4: The unity and diversity of organisms, living and extinct, is the result of evolution.</p> <p>8.L4U1.12 Gather and communicate evidence on how the process of natural selection provides an explanation of how new species can evolve.</p>	<p>The crosscutting concepts identified in <i>A Framework for K-12 Science Education</i> are:</p> <ul style="list-style-type: none"> • patterns • cause and effect • structure and function • systems and system models • stability and change • scale, proportion, and quantity <p>Newly introduced species can damage the balance of an ecosystem. Human activities have significantly altered the biosphere, sometimes by destroying natural habitats and causing the extinction of many other species. Different environments can have different impacts (negative and positive). Typically, as human populations and per-capita consumption increase, the impact on the environment is greater.</p>
15-16	Man's influence on nature: artificial selection, changes in environments Research project: how we can help	<p>U2: The knowledge produced by science is used in engineering and technologies to solve problems and/or create products.</p> <p>U3: Applications of science often have both positive and negative ethical, social, economic, and/or political implications.</p> <p>6.L2U3.11 Use evidence to construct an argument regarding the impact of human activities on the environment and how they can be reduced.</p>	<p>The crosscutting concepts identified in <i>A Framework for K-12 Science Education</i> are:</p> <ul style="list-style-type: none"> • patterns • cause and effect • structure and function • systems and system models • stability and change • scale, proportion, and quantity <p>Newly introduced species can damage the balance of an ecosystem. Human activities have significantly altered the biosphere, sometimes by destroying natural habitats and causing the extinction of many other species. Different environments can have different impacts (negative and positive). Typically, as human populations and per-capita consumption increase, the impact on the environment is greater.</p>

		positively and negatively affect the competition for energy and resources in ecosystems.	increase, so do the negative impacts on Earth unless the a involved are engineered otherwise. ⁴ (p. 196) Human activity certain plants and animals changes an ecosystem. ² (p.27) In artificial selection , humans have the capacity to influence organisms by selective breeding. One can choose desired genes, which are then passed on to offspring. ⁴ (p. 164) The genetic material when egg and sperm cells are formed an immense variety of possible combinations of genes, and i inherited from one generation to another. These provide selection as a result of some variations making organisms environmental conditions. ² (p. 28)
17-18	Course wrap-up and final exam		

Arizona State Science Standards, <https://www.azed.gov/standards-practices/k-12standards/standards-science>

By the end of seventh grade, students will explore how energy is transferred in environmental processes. Students investigate and explain the structure and function of cells and understand how genetic information is passed down to produce variation among the populations. Students will describe how stability and change and the process of cause and effect influence changes in the natural world. Student investigations focus on collecting and making sense of observational data and measurements using the science and engineering practices: ask questions and define problems, develop and use models, plan and carry out investigations, analyze and interpret data, use mathematics and computational thinking, construct explanations and design solutions, engage in argument from evidence, and obtain, evaluate, and communicate information. While individual lessons may include connections to any of the crosscutting concepts, the standards in seventh grade focus on helping students understand phenomena through patterns, cause and effect, scale, proportion, and quantity; systems and system models; energy and matter structure and function and stability and change. ³

Crosscutting Concepts

Crosscutting concepts⁴ cross boundaries between science disciplines and provide an organizational framework to connect knowledge from various disciplines into a coherent and scientifically based view of the world. They build bridges between science and other disciplines and connect core ideas and practices throughout the fields of science and engineering. Their purpose is to provide a lens to help students deepen their understanding of the core ideas as they make sense of phenomena in the natural and designed worlds. The crosscutting concepts identified in *A Framework for K-12 Science Education* are: patterns, cause and effect, structure and function, systems and system models, stability and change, scale, proportion, and quantity, energy and matter

³ Arizona State Science Standards, <https://www.azed.gov/standards-practices/k-12standards/standards-science>

ELL STANDARDS

Grade 7 Writing 7.

W.1 Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.