Pacing Guide for 7-12 Curriculum

Course Title: __Honors BIO104 (Dual Enrollment) ____ Length of Course: _____

Week Number	Chapter	cos	Objectives	Strategies / Materials Needed
Week 1	- Syllabus - Textbook Scavenger Hunt		SWBAT 1. Understand the basics of the classroom rules & of their textbooks	Name game, textbook scavenger hunt
Week 2	Chapters 25 – 26 Phylogeney & Systematics: Evolution	 5. Identify cells, tissues, organs, organ systems, organisms, populations, communities, and ecosystems as levels of organization in the biosphere. 9. Differentiate between the previous five-kingdom and current six-kingdom classification systems. 	 Understand the levels or organization from the most basic to the most complex. 2. Understand the basics of evolution. 3. Identifying organisms using a dichotomous key 4. Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 5. Justifying the grouping of viruses in a category separate from living things 6. Writing scientific names accurately by using binomial nomenclature 	Making Cladograms Activity
Week 3	Chapters 25 – 26 Phylogeney & Systematics: Evolution	 5. Identify cells, tissues, organs, organ systems, organisms, populations, communities, and ecosystems as levels of organization in the biosphere. 9. Differentiate between the previous five-kingdom and current six-kingdom classification systems. 	 Understand the levels or organization from the most basic to the most complex. Understand the basics of evolution. Identifying organisms using a dichotomous key Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful Justifying the grouping of viruses in a category separate from living things Writing scientific names accurately by using binomial nomenclature 	Making Cladograms Activity
Week 4	Chapter 27 - Prokaryotes	9. Differentiate between the previous five-kingdom and current six-kingdom	Understand the basic characteristics of prokaryotes. Distinguish between the	Lab: Identifying Types of Bacteria

		classification systems.	different kingdoms of bacteria.	
Week 5	Chapter 27 - Prokaryotes	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	Understand the basic characteristics of prokaryotes. 1. Distinguish between the different kingdoms of bacteria	Lab: Identifying Types of Bacteria
Week 6	Chapter 27 - Prokaryotes	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	Understand the basic characteristics of prokaryotes. Distinguish between the different kingdoms of bacteria	Lab: Identifying Types of Bacteria
Week 7	Chapter 28 - Protista	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	 Understand the basic characteristics of the kingdom protista. Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 	Microorganisms Lab

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Week 8	Chapter 28 - Protista	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	 SWBAT Understand the basic characteristics of the kingdom protista. Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 	Microorganisms Lab
Week 9	Chapter 28 - Protista	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	 Understand the basic characteristics of the kingdom protista. Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 	Microorganisms Lab
Week 10	Chapter 31 – Fungi	9. Differentiate between the previous five-kingdom and current six-kingdom	Understand the basic characteristics of the kingdom fungi.	Lab: Fungi: mold, mildew

		classification systems.	 Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 	
Week 11	Chapter 31 – Fungi	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	 Understand the basic characteristics of the kingdom fungi. Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 	Lab: Fungi: mold, mildew
Week 12	Chapter 31 – Fungi	9. Differentiate between the previous five-kingdom and current six-kingdom classification systems.	 Understand the basic characteristics of the kingdom fungi. Identifying ways in which organisms from the Monera, Protista, and Fungi kingdoms are beneficial and harmful 	Lab: Fungi: mold, mildew
Week 13	Chapters 29 – 30 – Introduction to Plants	10. Distinguish between monocots and dicots, angiosperms and gymnosperms, and vascular and nonvascular plants.	1. Describing the histology of roots, stems, leaves, and flowers	Lab: Plant Structure
Week 14	Chapters 29 – 30 – Introduction to Plants	10. Distinguish between monocots and dicots, angiosperms and gymnosperms, and vascular and nonvascular plants.	Describing the histology of roots, stems, leaves, and flowers	Lab: Plant Structure

Pacing Guide for 7-12 Curriculum

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Number				
Week 15	Chapters 29 – 30 – Introduction to Plants	10. Distinguish between monocots and dicots, angiosperms and gymnosperms, and vascular and nonvascular plants.	SWBAT 1. Describing the histology of roots, stems, leaves, and flowers	Lab: Plant Structure
Week 16	Chapters 35 & 39 - Plant Form & Function	10. Distinguish between monocots and dicots, angiosperms and gymnosperms, and vascular and nonvascular plants.	Recognizing chemical and physical adaptations of plants Examples: chemical—foul odor, bitter taste, toxicity; physical—spines, needles, broad leaves	Lab: Plant Reproduction
Week 17	Chapters 35 & 39 - Plant Form & Function	10. Distinguish between monocots and dicots, angiosperms and gymnosperms, and vascular and nonvascular plants.	Recognizing chemical and physical adaptations of plants Examples: chemical—foul odor, bitter taste, toxicity; physical—spines, needles, broad leaves	Lab: Plant Reproduction
Week 18	Chapters 35 & 39 - Plant Form & Function	10. Distinguish between monocots and dicots, angiosperms and gymnosperms, and vascular and nonvascular plants.	Recognizing chemical and physical adaptations of plants Examples: chemical—foul odor, bitter taste, toxicity; physical—spines, needles, broad leaves	Lab: Plant Reproduction
Week 19	Chapter 32 – Introduction to Animals	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.	Differentiate between: skeletal structure—vertebrates, invertebrates; fertilization—external, internal; reproduction—sexual, asexual; body symmetry—bilateral, radial, asymmetrical; body coverings—feathers, scales, fur; locomotion—cilia, flagella, pseudopodia	Body Symmetry Activity
Week 20	Chapter 32 – Introduction to Animals	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.	Differentiate between: skeletal structure—vertebrates, invertebrates; fertilization—external, internal; reproduction—sexual, asexual; body symmetry—bilateral, radial, asymmetrical; body coverings—feathers, scales, fur; locomotion—cilia, flagella, pseudopodia	Animal Identification Activity

	Chapter 32 –	11. Classify animals according	Differentiate between:	Animal Dissections
Week 21	Introduction to	to type of skeletal structure,	skeletal structure—vertebrates, invertebrates;	
	Animals	method of fertilization and reproduction, body symmetry,	fertilization—external, internal;	
		body coverings, and	reproduction—sexual, asexual;	
		locomotion.	body symmetry—bilateral, radial,	
			asymmetrical;	
			body coverings—feathers, scales, fur;	
			locomotion—cilia, flagella, pseudopodia	

Length of Course:	
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Week Number	Chapter	cos	Objectives	Strategies / Materials Needed
Week 22	Chapter 32 – Introduction to Animals	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.	SWBAT Differentiate between: skeletal structure—vertebrates, invertebrates; fertilization—external, internal; reproduction—sexual, asexual; body symmetry—bilateral, radial, asymmetrical; body coverings—feathers, scales, fur; locomotion—cilia, flagella, pseudopodia	Animal Dissections
Week 23	Chapter 33 - Invertebrates	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.	Distinguish the characteristics of invertebrates.	Animal Dissections
Week 24	Chapter 33 - Invertebrates	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.	Distinguish the characteristics of invertebrates.	Animal Dissections
Week 25	Chapter 33 - Invertebrates	11. Classify animals according to type of skeletal structure, method of fertilization and	Distinguish the characteristics of invertebrates.	Animal Dissections

Week 26	Chapter 33 - Invertebrates	reproduction, body symmetry, body coverings, and locomotion. 11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion.	Distinguish the characteristics of invertebrates.	Animal Dissections
Week 27	Chapters 34 - Vertebrates	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	Distinguish the characteristics of vertebrates.	Animal Dissections
Week 28	Chapters 34 - Vertebrates	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	Distinguish the characteristics of vertebrates.	Animal Dissections

Pacing Guide for 7-12 Curriculum

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Week Number	Chapter	cos	Objectives	Strategies / Materials Needed
Week 29	Chapters 34 - Vertebrates	Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	SWBAT Distinguish the characteristics of vertebrates.	Animal Dissections
Week 30	Chapters 34 - Vertebrates	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	Distinguish the characteristics of vertebrates.	Animal Dissections
Week 31	Chapter 40 – Animal Form & Function	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	 Distinguish animal form & function at all levels of organization. Explain how animals regulate internal environment. Understand the physical laws & the environment that constrains animal size & shape. 	Animal Video
Week 32	Chapter 40 – Animal Form & Function	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry,	Distinguish animal form & function at all levels of organization. Explain how animals regulate internal environment.	Shelter, Space, & Food Activity

		body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	3. Understand the physical laws & the environment that constrains animal size & shape.	
Week 33	Chapter 40 – Animal Form & Function	11. Classify animals according to type of skeletal structure, method of fertilization and reproduction, body symmetry, body coverings, and locomotion. 12. Describe protective adaptations of animals, including mimicry, camouflage, beak type, migration, and hibernation.	 Distinguish animal form & function at all levels of organization. Explain how animals regulate internal environment. Understand the physical laws & the environment that constrains animal size & shape. 	Endangered Species Project
Week 34	Chapters 50 & 54 - Ecology	 13. Trace the flow of energy as it decreases through the trophic levels from producers to the quaternary level in food chains, food webs, and energy pyramids. 14. Trace biogeochemical cycles through the environment, including water, carbon, oxygen, and nitrogen. 15. Identify biomes based on environmental factors and native organisms. 	Describe the interdependence of biotic and abiotic factors in an ecosystem Contrast autotrophs and heterotrophs Describe the niche of decomposers Use the ten percent law to explain the decreasing availability of energy through the trophic levels	Food Chain Activity
Week 35	Chapters 50 & 54 - Ecology	13. Trace the flow of energy as it decreases through the trophic levels from producers to the quaternary level in food chains, food webs, and energy pyramids. 14. Trace biogeochemical cycles through the environment, including water, carbon, oxygen, and nitrogen. 15. Identify biomes based on environmental factors and native organisms.	 Describe the interdependence of biotic and abiotic factors in an ecosystem Contrast autotrophs and heterotrophs Describe the niche of decomposers Use the ten percent law to explain the decreasing availability of energy through the trophic levels 	Tracing Energy in Food Web Activity

Course Title:	Length of Course:
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Week Number	Chapter	cos	Objectives	Strategies / Materials Needed
Week 36	Chapters 50 & 54 - Ecology	 13. Trace the flow of energy as it decreases through the trophic levels from producers to the quaternary level in food chains, food webs, and energy pyramids. 14. Trace biogeochemical cycles through the environment, including water, carbon, oxygen, and nitrogen. 15. Identify biomes based on environmental factors and native organisms. 	1. Describe the interdependence of biotic and abiotic factors in an ecosystem 2. Contrast autotrophs and heterotrophs 3. Describe the niche of decomposers 4. Use the ten percent law to explain the decreasing availability of energy through the trophic levels	Energy in the Ecosystem Activity