

* PASS 2011 to be tested through 2015-16, OASS will be tested 2016-17

Unit Outline		Timeframe for Each Unit	*Ideal % of Test Items on OCCT
Unit 0 <ul style="list-style-type: none"> ➤ Rituals and Routines ➤ Setting up scientific notebook ➤ Science Safety/ Laboratory Equipment ➤ Process Skills/ Science and Engineering Practices Introduction ➤ BSCS Biology: A Human Approach Unit Engage-Being a Scientist <p><i>(Note- Process skills and safety will continue to become embedded throughout the year)</i></p>		10 Days	P1.0-10% P2.0-12-13% P3.0-27-32% P4.0-33-40% P5.0-13%
Unit 1 <ul style="list-style-type: none"> ➤ Evolution: Change in Living Systems (*PASS C3.0) <ul style="list-style-type: none"> ○ Variation among organisms ○ Natural Selection and biological adaptations ○ Behavior patterns can be used to ensure reproductive success 	<p style="text-align: center;"><u>ALIGNING OASS TO BE TESTED 2016-17</u></p> <p style="text-align: center;">BIOLOGICAL UNITY AND DIVERSITY (*OASS HS-LS4-1 THROUGH 4-5)</p> <ul style="list-style-type: none"> ▪ DNA EVIDENCE ▪ FACTORS OF NATURAL SELECTION ▪ TYPES OF NATURAL SELECTION ▪ NATURAL SELECTION ▪ ENVIRONMENTAL FACTORS THAT EFFECT NATURAL SELECTION 	38 Days	21-27%
Chapter 1 The Human Animal Chapter 2 Evolution: Change Across Time Chapter 3 Products of Evolution: Unity and Diversity			

Unit Outline		Timeframe for Each Unit	*Ideal % of Test Items on OCCT
<p>Unit 2</p> <p>➤ Homeostasis: Maintaining Dynamic Equilibrium in Living Systems (*PASS-C1.1a-b, 1.3)</p> <ul style="list-style-type: none"> ○ Cell Structures and Functions ○ Differentiation of Cells ○ Specialized Cells The Molecular Basis of Heredity <p>▪ This unit does not cover 1.1c or 1.2. Provide your own supplemental material.</p>	<p>From Molecules to Organisms (*OASS- HS-LS1-3)</p> <ul style="list-style-type: none"> ▪ ORGANISMS RESPONSE (INTERNAL AND EXTERNAL) 	<p>8 Days</p>	<p>21-27%</p>
<p>Chapter 4 The Internal Environment of Organisms</p> <p>Chapters 5 & 6 to be covered after EOI</p>			
<p>Unit 3</p> <p>➤ Energy, Matter, & Organization: Relationships in Living Systems (*PASS C4.1 & 5.1)</p> <ul style="list-style-type: none"> ○ Organisms both cooperate and compete 	<p>From Molecules to Organisms (*OASS- HS-LS1-5, 1-6, 1-7, 2-3, 2-4, and 2-5)</p> <ul style="list-style-type: none"> ▪ PHOTOSYNTHESIS ▪ HYDROCARBON BACKBONES ▪ CELLULAR RESPIRATION ▪ SOURCES OF ENERGY PHOTOSYNTHESIS AND CELLULAR RESPIRATION (ANAEROBIC 	<p>22 Days</p>	<p>7-9% C 4.1 7% C 5.1</p>

<ul style="list-style-type: none"> ○ Complexity and Organization Used for survival 	<ul style="list-style-type: none"> & AEROBIC) ▪ EFFECT OF PHOTOSYNTHESIS AND CELLULAR RESPIRATION ON CARBON CYCLE 		
<p>Chapter 8 The Cellular Basis of Activity Chapter 9 The Cycling of Matter & the Flow of Energy in Ecosystems *Chapter 7 to be covered after EOI</p>			
<p>Unit 4</p> <p>Continuity: Reproduction and Inheritance in Living Systems</p> <p>➤ The Molecular Basis of Heredity (*PASS C2.0)</p> <ul style="list-style-type: none"> ○ Sorting and Recombination of Genes ○ DNA structure and function 	<p><u>ALIGNING OASS TO BE TESTED 2016-17</u></p> <p>✓ HEREDITY: INHERITANCE AND VARIATION OF TRAITS (*OASS HS-LS 1-1, 3-1, 3-2, & 3-3)</p> <ul style="list-style-type: none"> ▪ GENES (PUNNETT SQUARES, KARYOTYPES, ETC.) ▪ MEIOSIS AND MUTATIONS ▪ MATH OF PUNNETT SQUARES ▪ Transcription and Translation 	<p>24 Days</p>	<p>21-27%</p>
<p>Chapter 11 Gene Action Chapter 12 Continuity of Information Through Inheritance *Chapter 10 to be covered after EOI</p>			

<p>Unit 5 Development: Growth and Differentiation in Living Systems</p> <ul style="list-style-type: none"> ➤ The Cell (*PASS C1.0) <ul style="list-style-type: none"> ○ Mitosis 	<p>✓ From Molecules to Organisms (*OASS- HS-LS1-4)</p> <ul style="list-style-type: none"> ▪ MITOSIS & DIFFERENTIATION 	<p>8 Days</p>	<p>7-13%</p>
<p>Chapter 13 Processes and Patterns of Development *Chapter 14 to be covered after EOI</p>			
<p>Unit 6 Ecology: Interaction and Interdependence in Living Systems</p> <ul style="list-style-type: none"> ➤ The Interdependence of Organisms (*PASS C4.1, 4.2) <ul style="list-style-type: none"> ○ Symbiosis ○ Carrying Capacity ○ Population Dynamics ○ Limiting Factors 	<p><u>Aligning OASS To be tested 2016-17</u></p> <p>✓ ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS (OASS-HS-LS2-1,2-2,2-6, & 2-8)</p> <ul style="list-style-type: none"> ▪ LIMITING FACTORS OF CARRYING CAPACITY ▪ MATH CALCULATIONS OF LIMITING FACTORS ▪ ENVIRONMENTAL FACTORS (PRIMARY AND SECONDARY SUCCESSION) ▪ POPULATION BEHAVIORS 	<p>21 Days</p>	<p>14-18%</p>
<p>Chapter 15 Interdependence among Organisms Chapter 16 Decision Making in a Complex World</p>			

*Chapters to be covered AFTER the EOI: 5, 6, 7, 10, 14