



NEVADA
Life Science Content Standards for Grade 8
Life Science
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OBJECTIVES	PAGE REFERENCES
Content Standard 6.0: Structure and Function — <i>Students understand that all life forms, at all levels of organization, use specialized structures and similar processes to meet life’s needs.</i>	
By the end of Grade 8 , students know and are able to do everything required in previous grades and:	
6.8.1 Explain how disease is a breakdown in structures or functions of an organism due to intrinsic system failures or damage caused by infection.	SE: 53, 197, 555, 557, 576, 581 TWE: D 586
6.8.2 Investigate and describe how multicellular living things have tissues, organs, and organ systems that are specialized to perform life functions.	SE: 45, 252-255, 332, 360, 371 <i>Integrate Health</i> 255 TWE: TF 257 DI 580
6.8.3 Investigate and describe how cells, grow, divide, and take in nutrients, which they use to provide energy for cellular functions.	SE: 74-78, 83, 96-100 <i>National Geographic</i> 79 <i>MiniLAB</i> 101 TWE: UA 77 Act 79
6.8.4 Investigate and describe how most organisms are comprised of a single cell and others are multicellular.	SE: 14, 45, 189, 212-213, 217 TWE: TPK 210 CC 215
6.8.5 Investigate and describe how plants have specialized structures and systems for a variety of functions.	SE: 254-255, 274, 281-288, 305-309 <i>MiniLAB</i> 253 <i>Launch Lab</i> 270 <i>National Geographic</i> 289 <i>Lab</i> 310 TWE: D 277 QD 303
6.8.6 Explain how information used to guide cellular functions is stored in DNA .	SE: 40, 110-114, 126 <i>MiniLAB</i> 111 TWE: UA 112 MM 113 R 115
Content Standard 7.0: Internal and External Influences on Organisms — <i>Students understand that organisms respond to internal and external influences.</i>	
7.8.1 Explain how behavior may be innate or learned.	SE: 456-461, 468-470 <i>Applying Science</i> 469 TWE: DI 457 QD 458 Act 459 A 460

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7.8.2 Explain how an organism’s behavior is based on experience and on the species’ evolutionary history.	SE: 157, 456-458, 462 TWE: FF 457 RC 458 TF 460, 465 IM 466
7.8.3 Investigate and describe how behavior is one kind of response an organism can make to an internal or environmental stimulus.	SE: 456-461 <i>Launch Lab</i> 455 <i>MiniLAB</i> 460, 465 <i>Lab</i> 471 TWE: AP 454 TC 454 TF 461
7.8.4 Explain how various viruses, bacteria, fungi, and parasites may infect the human body and interfere with normal body functions.	SE: 52-54, 197, 217, 346 <i>Applying Science</i> 198 <i>Integrate Health</i> 217 <i>Design Your Own Lab</i> 350-351 TWE: TF 55, 197
Content Standard 8.0: Heredity and Diversity — <i>Students understand that life forms are diverse, and that they pass some characteristics to their offspring.</i>	
8.8.1 Explain how heredity is the passage of genetic instructions from one generation to another.	SE: 126-132 <i>Launch Lab</i> 125 <i>Integrate Career</i> 137 TWE: SCB 124E TPK 126 VL 132 RC 155
8.8.2 Classify organisms on the basis of similar characteristics, and explain the basis for such a classification system.	SE: 22-26, 245 <i>Launch Lab</i> 5 <i>Lab</i> 27 <i>Model and Invent Lab</i> 230-231 <i>National Geographic</i> 244 TWE: DI 23 IL 23 QD 24 Act 26
8.8.3 Explain how new varieties of cultivated plants and domestic animals have resulted from selective breeding for particular traits.	SE: 140, 143, 157 <i>MiniLAB</i> 128 <i>Applying Math</i> 131 TWE: DI 139 R 161
8.8.4 Explain how genetic information coded in DNA is passed through sexual or asexual reproduction.	SE: 101, 104-105, 112, 126, 275, 633 TWE: SCB 94E-94F IL 127
8.8.5 Explain how some patterns of inheritance can be explained by pairs of genes that separate when sex cells are formed.	SE: 104-107, 132, 139 <i>Integrate Chemistry</i> 105 TWE: CD 98 VL 127

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8.8.6 Identify that the basic level of biological classification is the species, which comprises all organisms that can mate with each other and produce fertile offspring.	SE: 23 <i>MiniLAB</i> 25 <i>Applying Science</i> 107 TWE: D 24 DI 25
8.8.7 Explain how changes in the genes of sex cells can affect offspring.	SE: 115, 137 <i>Use the Internet Lab</i> 116-117 TWE: DI 114 LD 137 TF 137
Content Standard 9.0: Evolution: The Process of Biological Change— <i>Students understand that life forms change over time.</i>	
9.8.1 Explain that millions of species of animals, plants, and microorganisms are alive today.	SE: 154, 186, 193, 240 <i>Time: Science and Society</i> 30 TWE: II 30
9.8.2 Investigate and describe how biological evolution provides a scientific explanation for the differences and many similarities between species.	SE: 154-161, 167-169, 172-173, 241 <i>MiniLAB</i> 159 TWE: SCB 152E VL 155 D 156
9.8.3 Investigate and describe how biological adaptations include changes that enhance survival and reproductive success in a particular environment.	SE: 158-159 <i>Launch Lab</i> 153 <i>Lab</i> 162 TWE: TC 152 DI 156 CA 159
9.8.4 Investigate and describe how unity among organisms is found in similarities of internal structures, chemical processes, and modern evidence of common ancestry.	SE: 167-169, 249, 363, 369 TWE: TC 124 TF 167 VL 168
9.8.5 Explain how extinction of a species occurs when the adaptive characteristics of a species are insufficient to allow it to survive environmental change.	SE: 417 <i>Integrate Earth Science</i> 363 <i>National Geographic</i> 416 <i>Integrate History</i> 417 TWE: DI 416 TF 434, 747

Codes Used for TWE Pages

A	Assessment
Act	Activity
AP	About the Photo
CA	Caption Answer
CC	Curriculum Connection
CD	Cultural Diversity
D	Discussion
DI	Differentiated Instruction
FF	Fun Fact
II	Investigate the Issue
IL	Inquiry Lab
IM	Identifying Misconceptions
LD	Lab Demonstration
MM	Make a Model
QD	Quick Demo
R	Reteach
RC	Reading Check
SCB	Science Content Background
TC	Theme Connection
TF	Teacher FYI
TPK	Tying to Prior Knowledge
UA	Using an Analogy
VL	Visual Learning