



**NEVADA**  
**Life Science Content Standards for Grade 8**  
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OBJECTIVES	PAGE REFERENCES
<b>Content Standard 6.0: Structure and Function</b> — <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 <b>Grade 8</b> , 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, 199, 553, 561, 580-582, 587, 659 TWE: UAA 581
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, 254-257, 334, 364, 374, 442, 583-586, 600-601, 603-607, 629, 658-661 <i>National Geographic</i> 630-631
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: UAA 77 AC 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, 224, 334 <i>Reference Handbook D</i> 860-863
6.8.5 Investigate and describe how plants have specialized structures and systems for a variety of functions.	SE: 254-257, 283-290, 305-310 <i>MiniLab</i> 255 <i>Activity</i> 312 TWE: AC 256, 287 LD 286 QD 305
6.8.6 Explain how information used to guide cellular functions is stored in <b>DNA</b> .	SE: 40, 110-114, 126 <i>MiniLab</i> 111 TWE: UAA 112 MAM 113
<b>Content Standard 7.0: Internal and External Influences on Organisms</b> — <i>Students understand that organisms respond to internal and external influences.</i>	
7.8.1 Explain how behavior may be innate or learned.	SE: 460-465, 472-473 <i>Activity</i> 475 TWE: QD 462 AC 463 AS 465 SCB 458E
7.8.2 Explain how an organism’s behavior is based on experience and on the species’ evolutionary history.	SE: *157, 158, 460-462, 466-470 TWE: SCB 458E *Can be addressed during discussions of natural selection and innate and instinctive behaviors.

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7.8.3 Investigate and describe how behavior is one kind of response an organism can make to an internal or environmental stimulus.	SE: 460-465 <i>Activity</i> 475 TWE: SCB 458E TFYI 464
7.8.4 Explain how various <b>viruses, bacteria, fungi,</b> and <b>parasites</b> may infect the human body and interfere with normal body functions.	SE: 52-54, 199, 220, 231, 349, 658-661 <i>Activity</i> 354-355 TWE: TFYI 199 EX 349 AC 349
<b>Content Standard 8.0: Heredity and Diversity</b> — <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 TWE: SCB 124E TTPK 126 VL 132
8.8.2 Classify organisms on the basis of similar characteristics, and explain the basis for such a classification system.	SE: 22-26, 247 <i>Activity</i> 232-233 <i>National Geographic</i> 246 <i>Reference Handbook D</i> 860-863 TWE: QD 23 AC 26 CH 26
8.8.3 Explain how new varieties of cultivated plants and domestic animals have resulted from <b>selective breeding</b> for particular traits.	SE: 140, 157 TWE: EX 139 RT 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, 639 TWE: SCB 94E-94F
8.8.5 Explain how some patterns of inheritance can be explained by pairs of genes that separate when sex cells are formed.	SE: 139 TWE: MAM 139
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 TWE: DS 23
8.8.7 Explain how changes in the genes of sex cells can affect offspring.	SE: 137, 115 <i>Activity: Use the Internet</i> 116-117 TWE: CH 115 TFYI 137 LD 137
<b>Content Standard 9.0: Evolution: The Process of Biological Change</b> — <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 <i>Time: Science and Society</i> 30-31 TWE: ITI 31

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9.8.2 Investigate and describe how biological evolution provides a scientific explanation for the differences and many similarities between species.	SE: 154-159, 170-173 TWE: SCB 152E VL 155
9.8.3 Investigate and describe how biological adaptations include changes that enhance survival and reproductive success in a particular environment.	SE: 155-159 <i>Explore Activity 153</i> <i>Activity 162</i> TWE: IS 156 DS 157
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 TWE: TFYI 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: <i>Earth Science Integration 367, 421</i> TWE: ESI 367, 421

### Codes Used for TWE Pages

AC	Activity
AS	Assessment
CH	Challenge
DS	Discussion
ESI	Earth Science Integration
EX	Extension
IS	Inclusion Strategy
ITI	Investigate the Issue
LD	Lab Demonstration
MAM	Make a Model
QD	Quick Demo
RT	Reteach
SCB	Science Content Background
TFYI	Teacher FYI
TTPK	Tying to Prior Knowledge
UAA	Using an Analogy
VL	Visual Learning