

Grade 8 Science

Unit 6: Natural Selection and Common Ancestry

Driving question: How could things living today be connected to the things that lived long ago?

20 lessons (investigations and weekly readings) and a words quiz. Use this pack with the unit's **Teacher Guide**, **Student Procedure Guide**, **Student Work Pages** and **Science Literacy Student Reader** (download them once from the course) to teach the whole unit without the internet.

What is in this pack

- A plan for each lesson: the lesson question, how many class days it takes, the Teacher Guide pages to follow, and the student pages to print.
- For each weekly reading: the Student Reader pages, words to know and the exercise page.
- The words quiz, ready to print, with its key at the back.

CKSci 6–8 was originally developed and authored by OpenSciEd (www.openscienced.org), licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0). Additions marked “Core Knowledge Science Literacy” are the work of the Core Knowledge® Foundation (www.coreknowledge.org), made available through licensing under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. This does not in any way imply that OpenSciEd or the Core Knowledge Foundation endorses this work. PGAMO added the lesson pages, study packs and quizzes layout, and shares them under the same license. License: CC BY-NC-SA 4.0 (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

Lesson schedule

Each investigation lesson takes the number of class days shown (about 45 minutes a day). Do each reading over a week alongside the lessons. Tick each one off as you go.

	Lesson	Days	Student pages
☐	Reading: Science Literacy Preface: Put Yourself in This Scene	1 week	—
☐	Lesson 1: How could penguins and other things living today be connected to the things that lived long ago?	4	6 to print
☐	Lesson 2: How similar or different are different species of penguins?	2	6 to print
☐	Lesson 3: How do the body structures of other ancient penguins compare to modern penguins?	2	8 to print
☐	Lesson 4: Why are there similarities and differences in the body structures of modern and ancient penguins?	2	10 to print
☐	Reading: Science Literacy Collection 1: Earth's Long Life Story	1 week	1 to print
☐	Lesson 5: How might other living things be connected to ancient organisms?	2	5 to print
☐	Lesson 6: How could organisms living today be connected to organisms that lived long ago?	2	1 to print
☐	Lesson 7: How do traits found in a population change over a shorter amount of time?	3	13 to print
☐	Reading: Science Literacy Collection 2: Genes, Species, and Change	1 week	1 to print
☐	Lesson 8: How can we model what is causing the changes in the populations happening across all our case studies?	2	2 to print
☐	Lesson 9: How well does our General Model predict and explain the changes happening over time in a different population?	2	4 to print

	Lesson	Days	Student pages
☐	Lesson 10: Why does our General Model tend to produce different outcomes in different environmental conditions?	2	3 to print
☐	Reading: Science Literacy Collection 3: Selection and Survival	1 week	1 to print
☐	Lesson 11: Can we use our General Model for Natural Selection to explain changes over time in green anole lizards?	1	3 to print
☐	Lesson 12: Can our model explain changes over really long periods of time?	2	1 to print
☐	Lesson 13: Can we apply the General Model for Natural Selection over millions of years to explain how all the ancient and modern penguins are connected?	2	1 to print
☐	Reading: Science Literacy Collection 4: From Ancient to Modern Species	1 week	1 to print
☐	Lesson 14: What do the patterns in embryo development tell us about how things living today could be connected to the things that lived long ago?	2	5 to print
☐	Lesson 15: What can we explain now, and what questions do we still have?	1	2 to print
☐	Words quiz	—	—

Page numbers are PDF page numbers of each file, so they match what your PDF reader shows.

Reading: Science Literacy Preface: Put Yourself in This Scene

Words to know

- **gene** — a unit of hereditary information that occupies a specific place on a chromosome
- **gene therapy** — the use of genes to treat, prevent, or cure a disease or medical condition
- **science literacy** — the ability to read, hear, and comprehend information about scientific topics and demonstrate understanding in discussion and through writing
- **skepticism** — doubt about the truth of something

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 35–38: the steps, materials and timing for this lesson.

Read

Read Science Literacy Student Reader, Preface: “Put Yourself in This Scene”: PDF pages 6–7. Look at the pictures and maps together.

Check for understanding

- Use one of today's words in a sentence of your own.

Lesson 1: How could penguins and other things living today be connected to the things that lived long ago?

LESSON QUESTION

How could penguins and other things living today be connected to the things that lived long ago?

Plan about **4 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 39–73: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 6–12
- Penguin Comparison — Student Work Pages, PDF pages 7–8
- Predictions on Other Penguins That Lived Long Ago — Student Work Pages, PDF pages 9–10
- Initial Explanations — Student Work Pages, PDF pages 11–12
- Reference: Podcast Transcript and Photo Journal — Student Procedure Guide, PDF pages 65–68
- Reading: Penguin Environments - Ancient and Modern — Student Procedure Guide, PDF pages 96–100

For the teacher

- Teacher Reference — Teacher Guide, PDF pages 377–379

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: How could penguins and other things living today be connected to the things that lived long ago?

Lesson 2: How similar or different are different species of penguins?

LESSON QUESTION

How similar or different are different species of penguins?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 74–97: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 13–16
- Reference: External Structures and Behaviors Key — Student Work Pages, PDF pages 13–14
- Data Strips: External Structures and Behaviors in Modern Penguins and Pedro — Student Work Pages, PDF pages 15–20
- Reference: Internal Structures Key — Student Work Pages, PDF pages 21–22
- Data Strips, Internal and External Structures in Modern Penguins and Pedro — Student Work Pages, PDF pages 23–28
- New Questions and Ideas for Data We Need — Student Work Pages, PDF pages 29–30

For the teacher

- Teacher Reference 1 — Teacher Guide, PDF pages 380–383

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: How similar or different are different species of penguins?

Lesson 3: How do the body structures of other ancient penguins compare to modern penguins?

LESSON QUESTION

How do the body structures of other ancient penguins compare to modern penguins?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 98–116: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 17–20
- Data Strips, Internal and External Structures in Modern Penguins and Pedro — Student Work Pages, PDF pages 31–36
- Data Strips for Ancient Penguin Fossils — Student Work Pages, PDF pages 37–38
- Extension, Data Strips of More Incomplete Ancient Penguin Fossils — Student Work Pages, PDF pages 39–40
- Timeline Sections — Student Work Pages, PDF pages 41–46
- Ancient Penguin Sorting Exit Ticket — Student Work Pages, PDF pages 47–48
- Reference: Maps of Earth's Surface Over the Last 50 Million Years — Student Procedure Guide, PDF page 69
- Reading: How do scientists use fossils to figure out what an organism that lived millions of years ago may have looked like? — Student Procedure Guide, PDF pages 83–85

For the teacher

- Teacher Reference — Teacher Guide, PDF page 384

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: How do the body structures of other ancient penguins compare to modern penguins?

Lesson 4: Why are there similarities and differences in the body structures of modern and ancient penguins?

LESSON QUESTION

Why are there similarities and differences in the body structures of modern and ancient penguins?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 117-144: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 21-25
- Three Explanations — Student Work Pages, PDF pages 49-50
- Word Wall Image for Population — Student Work Pages, PDF pages 51-52
- Reference: Analyzing and Interpreting Fossil Data — Student Work Pages, PDF pages 53-54
- Exit Ticket - Trait Variation — Student Work Pages, PDF pages 55-56
- Reference: Analyzing and Interpreting Fossil Data — Student Procedure Guide, PDF page 70
- Reading: Version 1: Horses—Ancient and Modern — Student Procedure Guide, PDF pages 86-87
- Reading: Version 2: Horses—Ancient and Modern — Student Procedure Guide, PDF pages 88-89
- Reading: Version 1: Horseshoe Crabs—Ancient and Modern — Student Procedure Guide, PDF pages 90-92
- Reading: Version 2: Horseshoe Crabs—Ancient and Modern — Student Procedure Guide, PDF pages 93-95

For the teacher

- Answer Key — Teacher Guide, PDF pages 385-386

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: Why are there similarities and differences in the body structures of modern and ancient penguins?

Reading: Science Literacy Collection 1: Earth's Long Life Story

Words to know

- **fossil record** — the history of life on Earth according to fossils that have been found throughout time
- **homeostasis** — a stable internal environment
- **mass extinctions** — events in Earth's past during which large percentages, usually about 75%, of species became extinct during short periods of geologic time
- **phylogenetic tree** — a diagram that shows evolutionary relationships among types of living things
- **phylogeny** — the evolutionary history of organisms (also phylogenesis)
- **radiocarbon dating** — a method for determining the age of an object by examining the ratio of carbon 12 to carbon 14 isotopes in its material
- **radiometric dating** — a process for determining the age of materials by examining the decay of isotopes
- **sedimentary rock** — rock formed through the compaction and cementation of layers of sediment
- **species** — a group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding
- **taxa** — plural of taxon, a group of related species

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 145–151: the steps, materials and timing for this lesson.

Read

Read Science Literacy Student Reader, Collection 1: "Earth's Long Life Story": PDF pages 8–17. Look at the pictures and maps together.

Student pages to print

- Exercise Page 1 — Student Work Pages, PDF pages 167–168

Check for understanding

- Use one of today's words in a sentence of your own.

Lesson 5: How might other living things be connected to ancient organisms?

LESSON QUESTION

How might other living things be connected to ancient organisms?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 152–171: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 26–29
- Patterns for My Organism — Student Work Pages, PDF pages 57–60
- Guiding Questions to Compare Our Models — Student Work Pages, PDF pages 61–62
- Reference: Maps of Earth's Surface 150 and 100 Million Years Ago — Student Procedure Guide, PDF page 71
- Reference: Peer Feedback Guidelines — Student Procedure Guide, PDF pages 72–73

For the teacher

- Answer Key — Teacher Guide, PDF pages 387–390

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation:
How might other living things be connected to ancient organisms?

Lesson 6: How could organisms living today be connected to organisms that lived long ago?

LESSON QUESTION

How could organisms living today be connected to organisms that lived long ago?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 172–186: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 30–32

For the teacher

- Answer Key 1 — Teacher Guide, PDF pages 391–392

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation:
How could organisms living today be connected to organisms that lived long ago?

Lesson 7: How do traits found in a population change over a shorter amount of time?

LESSON QUESTION

How do traits found in a population change over a shorter amount of time?

Plan about **3 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 187–209: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 33–37
- Cliff Swallow Data Packet — Student Work Pages, PDF pages 63–76
- Finch Data Packet — Student Work Pages, PDF pages 77–92
- Mustard Plant Data Packet — Student Work Pages, PDF pages 93–106
- Peppered Moth Data Packet — Student Work Pages, PDF pages 107–122
- Stickleback Data Packet — Student Work Pages, PDF pages 123–136
- Using the CCC Lens — Student Work Pages, PDF pages 137–138
- Develop a System Model — Student Work Pages, PDF pages 139–140
- Reference: Overview: Finch Beaks — Student Procedure Guide, PDF pages 74–75
- Reference: Overview: Peppered Moth — Student Procedure Guide, PDF pages 76–77
- Reference: Overview: Cliff Swallow Wings — Student Procedure Guide, PDF page 78
- Reference: Overview: Mustard Plant Time to Flowering — Student Procedure Guide, PDF pages 79–80
- Reference: Overview: Stickleback Armor — Student Procedure Guide, PDF pages 81–82

For the teacher

- Answer Key 1 — Teacher Guide, PDF pages 393–405
- Answer Key 2 — Teacher Guide, PDF pages 406–408
- Answer Key 3 — Teacher Guide, PDF pages 409–410

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: How do traits found in a population change over a shorter amount of time?

Reading: Science Literacy Collection 2: Genes, Species, and Change

Words to know

- **convergence** — independent evolution of similar traits across unrelated species
- **evolution** — changes in the genetic structure of populations over time
- **gene** — a unit of hereditary information that occupies a specific place on a chromosome
- **gene therapy** — the use of genes to treat, prevent, or cure a disease or medical condition
- **species** — a group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding
- **technology** — the use of scientific knowledge to solve practical problems

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 210–216: the steps, materials and timing for this lesson.

Read

Read Science Literacy Student Reader, Collection 2: “Genes, Species, and Change”: PDF pages 18–27. Look at the pictures and maps together.

Student pages to print

- Exercise Page 2 — Student Work Pages, PDF pages 169–170

Check for understanding

- Use one of today's words in a sentence of your own.

Lesson 8: How can we model what is causing the changes in the populations happening across all our case studies?

LESSON QUESTION

How can we model what is causing the changes in the populations happening across all our case studies?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 217–247: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 38–40
- How can we use our model to make predictions? — Student Work Pages, PDF pages 141–142

For the teacher

- Teacher Reference 1 — Teacher Guide, PDF pages 411–412
- Teacher Reference 2 — Teacher Guide, PDF pages 413–429
- Answer Key 1 — Teacher Guide, PDF pages 430–431

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation:
How can we model what is causing the changes in the populations happening across all our case studies?

Lesson 9: How well does our General Model predict and explain the changes happening over time in a different population?

LESSON QUESTION

How well does our General Model predict and explain the changes happening over time in a different population?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 248–268: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 41–46
- Flagella Image for Word Wall — Student Work Pages, PDF pages 143–144
- Investigation 1 — Student Work Pages, PDF pages 145–146
- Refining and Applying our general Model for Natural Selection — Student Work Pages, PDF pages 147–148

For the teacher

- Teacher Reference 1 — Teacher Guide, PDF pages 432–435
- Answer Key 1 — Teacher Guide, PDF pages 436–437

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation:
How well does our General Model predict and explain the changes happening over time in a different population?

Lesson 10: Why does our General Model tend to produce different outcomes in different environmental conditions?

LESSON QUESTION

Why does our General Model tend to produce different outcomes in different environmental conditions?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 269–280: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 47–49
- Different Environmental Conditions and Results — Student Work Pages, PDF pages 149–150
- My Model for Changes in Bacteria Populations — Student Work Pages, PDF pages 151–152

For the teacher

- Answer Key 1 — Teacher Guide, PDF pages 438–439
- Answer Key 2 — Teacher Guide, PDF pages 440–444

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: Why does our General Model tend to produce different outcomes in different environmental conditions?

Reading: Science Literacy Collection 3: Selection and Survival

Words to know

- **adaptation** — an inherited trait that improves an organism’s fitness for survival
- **artificial selection** — steps taken by humans to perpetuate desired traits in plants and animals
- **evolution** — changes in the genetic structure of populations over time
- **gene** — a unit of hereditary information that occupies a specific place on a chromosome
- **natural selection** — the survival and reproductive success of organisms with qualities best suited to their environment
- **probability** — the likelihood of something happening
- **species** — a group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding

Teacher’s lesson plan

Follow the Teacher Guide, PDF pages 281–287: the steps, materials and timing for this lesson.

Read

Read Science Literacy Student Reader, Collection 3: “Selection and Survival”: PDF pages 28–39. Look at the pictures and maps together.

Student pages to print

- Exercise Page 3 — Student Work Pages, PDF pages 171–172

Check for understanding

- Use one of today’s words in a sentence of your own.

Lesson 11: Can we use our General Model for Natural Selection to explain changes over time in green anole lizards?

LESSON QUESTION

Can we use our General Model for Natural Selection to explain changes over time in green anole lizards?

Plan about **1 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 288–294: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 50–51
- Model Scaffold for Green Lizard Explanation — Student Work Pages, PDF pages 153–154
- Peer Feedback Self-Assessment — Student Work Pages, PDF pages 155–156

For the teacher

- Answer Key — Teacher Guide, PDF pages 445–449

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: Can we use our General Model for Natural Selection to explain changes over time in green anole lizards?

Lesson 12: Can our model explain changes over really long periods of time?

LESSON QUESTION

Can our model explain changes over really long periods of time?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 295–314: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 52–55

For the teacher

- Teacher Reference — Teacher Guide, PDF page 450
- Answer Key 1 — Teacher Guide, PDF pages 451–453

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation:
Can our model explain changes over really long periods of time?

Lesson 13: Can we apply the General Model for Natural Selection over millions of years to explain how all the ancient and modern penguins are connected?

LESSON QUESTION

Can we apply the General Model for Natural Selection over millions of years to explain how all the ancient and modern penguins are connected?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 315–336: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 56–58

For the teacher

- Teacher Reference 1 — Teacher Guide, PDF pages 454–456
- Teacher Reference 2 — Teacher Guide, PDF pages 457–460
- Answer Key — Teacher Guide, PDF pages 461–462

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation:
Can we apply the General Model for Natural Selection over millions of years to explain how all the ancient and modern penguins are connected?

Reading: Science Literacy Collection 4: From Ancient to Modern Species

Words to know

- **adaptation** — an inherited trait that improves an organism’s fitness for survival
- **clone** — an exact genetic copy of an organism
- **evolution** — changes in the genetic structure of populations over time
- **fossil record** — the history of life on Earth according to fossils that have been found throughout time
- **gene** — a unit of hereditary information that occupies a specific place on a chromosome
- **natural selection** — the survival and reproductive success of organisms with qualities best suited to their environment
- **random** — occurring or selected by no predetermined method or conscious decision
- **speciation** — the formation of distinct new species as a result of biological evolution
- **species** — a group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding
- **technology** — the use of scientific knowledge to solve practical problems

Teacher’s lesson plan

Follow the Teacher Guide, PDF pages 337–342: the steps, materials and timing for this lesson.

Read

Read Science Literacy Student Reader, Collection 4: “From Ancient to Modern Species”: PDF pages 40–48. Look at the pictures and maps together.

Student pages to print

- Exercise Page 4 — Student Work Pages, PDF pages 173–177

Check for understanding

- Use one of today’s words in a sentence of your own.

Lesson 14: What do the patterns in embryo development tell us about how things living today could be connected to the things that lived long ago?

LESSON QUESTION

What do the patterns in embryo development tell us about how things living today could be connected to the things that lived long ago?

Plan about **2 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 343–354: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 59–62
- Egg-Laying Embryos — Student Work Pages, PDF pages 157–158
- Live Birth Embryos — Student Work Pages, PDF pages 159–160
- Alternate: Non-egg-laying Embryos — Student Work Pages, PDF pages 161–162
- New Ideas and Questions Connected to Embryo Comparisons — Student Work Pages, PDF pages 163–164

For the teacher

- Answer Key — Teacher Guide, PDF pages 463–468

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: What do the patterns in embryo development tell us about how things living today could be connected to the things that lived long ago?

Lesson 15: What can we explain now, and what questions do we still have?

LESSON QUESTION

What can we explain now, and what questions do we still have?

Plan about **1 class days** for this lesson.

Teacher's lesson plan

Follow the Teacher Guide, PDF pages 355–360: the steps, materials and timing for this lesson.

Student pages to print

- Student procedures for this lesson — Student Procedure Guide, PDF pages 63–64
- Reviewing Our Driving Question Board — Student Work Pages, PDF pages 165–166

Check for understanding

- Explain your answer to the lesson question, using evidence from your investigation: What can we explain now, and what questions do we still have?

WORDS QUIZ

Natural Selection and Common Ancestry

Name: _____ Date: _____

Circle the letter of the best answer.

- 1.** Which word means “events in Earth’s past during which large percentages, usually about 75%, of species became extinct during short periods of geologic time”?
 - a) species
 - b) dominant gene
 - c) mass extinctions
 - d) technology
- 2.** Which word means “the survival and reproductive success of organisms with qualities best suited to their environment”?
 - a) clone
 - b) bioethicist
 - c) science literacy
 - d) natural selection
- 3.** Which word means “the use of scientific knowledge to solve practical problems”?
 - a) natural selection
 - b) technology
 - c) radiocarbon dating
 - d) homeostasis
- 4.** Which word means “the evolutionary history of organisms (also phylogenesis)”?
 - a) phylogeny
 - b) dominant gene
 - c) skepticism
 - d) mass extinctions
- 5.** Which word means “a method for determining the age of an object by examining the ratio of carbon 12 to carbon 14 isotopes in its material”?
 - a) embryo
 - b) phylogenetic tree
 - c) radiometric dating
 - d) radiocarbon dating
- 6.** Which word means “rock formed through the compaction and cementation of layers of sediment”?
 - a) phylogeny
 - b) sedimentary rock
 - c) species
 - d) convergence

- 7.** Which word means “a unit of hereditary information that occupies a specific place on a chromosome”?
- a) gene
 - b) probability
 - c) science literacy
 - d) skepticism
- 8.** Which word means “doubt about the truth of something”?
- a) artificial selection
 - b) homeostasis
 - c) skepticism
 - d) radiometric dating
- 9.** Which word means “a stable internal environment”?
- a) homeostasis
 - b) fossil record
 - c) random
 - d) embryo
- 10.** Which word means “a multicellular organism in the early stage of its development”?
- a) technology
 - b) embryo
 - c) radiocarbon dating
 - d) convergence
- 11.** Which word means “each of multiple types of atoms of the same element that have the same number of protons but different numbers of neutrons in their nuclei”?
- a) taxa
 - b) gene therapy
 - c) natural selection
 - d) isotope
- 12.** Which word means “plural of taxon, a group of related species”?
- a) bioethicist
 - b) taxa
 - c) probability
 - d) radiometric dating

FOR THE TEACHER

Answers

Unit quiz key

1. c 2. d 3. b 4. a 5. d 6. b 7. a 8. c 9. a 10. b 11. d 12. b