Real World Science: Fossils & Dinosaurs

AIMS Multimedia is a leading producer and distributor of educational programs serving schools and libraries for nearly 40 years. AIMS draws upon the most up-to-date knowledge, existing and emerging technologies, and all of the instructional and pedagogical resources available to develop and distribute educational programs in film, videocassette, laserdisc, CD-ROM and CD-i formats.

Persons or schools interested in obtaining additional copies of this AIMS Teaching Module, please contact:

AIMS Multimedia

1-800-FOR-AIMS
1-800-367-2467

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Congratulations!

You have chosen a learning program that will actively motivate your students AND provide you with easily accessible and easily manageable instructional guidelines designed to make your teaching role efficient and rewarding.

The AIMS Teaching Module provides you with a video program keyed to your classroom curriculum, instructions and guidelines for use, plus a comprehensive teaching program containing a wide range of activities and ideas for interaction between all content areas. Our authors, educators, and consultants have written and reviewed the AIMS Teaching Modules to align with the Educate America Act: Goals 2000.

This ATM, with its clear definition of manageability, both in the classroom and beyond, allows you to tailor specific activities to meet all of your classroom needs.

RATIONALE

In today's classrooms, educational pedagogy is often founded on Benjamin S. Bloom's "Six Levels of Cognitive Complexity." The practical application of Bloom's Taxonomy is to evaluate students' thinking skills on these levels, from the simple to the complex: Knowledge (rote memory skills), Comprehension (the ability to relate or retell), Application (the ability to apply knowledge outside its origin), Analysis (relating and differentiating parts of a whole), Synthesis (relating parts to a whole), and Evaluation (making a judgment or formulating an opinion).

The AIMS Teaching Module is designed to facilitate these intellectual capabilities, AND to integrate classroom experiences and assimilation of learning with the students' life experiences, realities, and expectations. AIMS' learner verification studies prove that our AIMS Teaching Modules help students to absorb, retain, and to demonstrate ability to use new knowledge in their world. Our educational materials are written and designed for today's classroom, which incorporates a wide range of intellectual, cultural, physical, and emotional diversities.

ORGANIZATION AND MANAGEMENT

To facilitate ease in classroom manageability, the AIMS Teaching Module is organized in four sections. You are reading Section 1, Introduction to the Aims Teaching Module (ATM).

SECTION 2,

INTRODUCING THIS ATM
will give you the specific information you need to integrate the program into your classroom curriculum.

SECTION 3,

PREPARATION FOR VIEWING
provides suggestions and strategies for motivation, language preparedness, readiness, and focus prior to viewing the program with your students.

SECTION 4,

AFTER VIEWING THE PROGRAM
provides suggestions for additional activities plus an assortment of consumable assessment and extended activities, designed to broaden comprehension of the topic and to make connections to other curriculum content areas.

FEATURES

INTRODUCING EACH ATM

SECTION 2

Your AIMS Teaching Module is designed to accompany a video program written and produced by some of the world's most credible and creative writers and producers of educational programming. To facilitate diversity and flexibility in your classroom, your AIMS Teaching Module features these components:

Themes

The Major Theme tells how this AIMS Teaching Module is keyed into the curriculum. Related Themes offer suggestions for interaction with other curriculum content areas, enabling teachers to use the teaching module to incorporate the topic into a variety of learning areas.

Overview

The Overview provides a synopsis of content covered in the video program. Its purpose is to give you a summary of the subject matter and to enhance your introductory preparation.

Objectives

The ATM learning objectives provide guidelines for teachers to assess what learners can be expected to gain from each program. After completion of the AIMS Teaching Module, your students will be able to demonstrate dynamic and applied comprehension of the topic.

PREPARATION FOR VIEWING

SECTION 3

In preparation for viewing the video program, the AIMS Teaching Module offers activity and/or discussion ideas that you may use in any order or combination.

Introduction To The Program

Introduction to the Program is designed to enable students to recall or relate prior knowledge about the topic and to prepare them for what they are about to learn.

Introduction To Vocabulary

Introduction to Vocabulary is a review of language used in the program: words, phrases, usage. This vocabulary introduction is designed to ensure that all learners, including limited English proficiency learners, will have full understanding of the language usage in the content of the program.

Discussion Ideas

Discussion Ideas are designed to help you assess students' prior knowledge about the topic and to give students a preview of what they will learn. Active discussion stimulates interest in a subject and can motivate even the most reluctant learner. Listening, as well as speaking, is active participation. Encourage your students to participate at the rate they feel comfortable. Model sharing personal experiences when applicable, and model listening to students' ideas and opinions.

Focus

Help learners set a purpose for watching the program with Focus, designed to give students a focal point for comprehension continuity.

Jump Right In

Jump Right In provides abbreviated instructions for quick management of the program.

AFTER VIEWING THE PROGRAM

SECTION 4

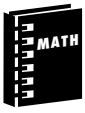
After your students have viewed the program, you may introduce any or all of these activities to interact with other curriculum content areas, provide reinforcement, assess comprehension skills, or provide hands-on and in-depth extended study of the topic.

SUGGESTED ACTIVITIES

The Suggested Activities offer ideas for activities you can direct in the classroom or have your students complete independently, in pairs, or in small work groups after they have viewed the program. To accommodate your range of classroom needs, the activities are organized into skills categories. Their labels will tell you how to identify each activity and help you correlate it into your classroom curriculum. To help you schedule your classroom lesson time, the AIMS hourglass gives you an estimate of the time each activity should require. Some of the activities fall into these categories:

Meeting Individual Needs

These activities are designed to aid in classroom continuity. Reluctant learners and learners acquiring English will benefit from these activities geared to enhance comprehension of language in order to fully grasp content meaning.



Curriculum Connections

Many of the suggested activities are intended to integrate the content of the ATM program into other content areas of the classroom curriculum. These cross-connections turn the classroom teaching experience into a whole learning experience.

Critical Thinking

Critical Thinking activities are designed to stimulate learners' own opinions and ideas. These activities require students to use the thinking process to discern fact from opinion, consider their own problems and formulate possible solutions, draw conclusions, discuss cause and effect, or combine what they already know with what they have learned to make inferences.

Cultural Diversity

Each AIMS Teaching Module has an activity called Cultural Awareness, Cultural Diversity, or Cultural Exchange that encourages students to share their backgrounds, cultures, heritage, or knowledge of other countries, customs, and language.

Hands On

These are experimental or tactile activities that relate directly to the material taught in the program.Your students will have opportunities to make discoveries and formulate ideas on their own, based on what they learn in this unit.

Writing

Every AIMS Teaching Module will contain an activity designed for students to use the writing process to express their ideas about what they have learned. The writing activity may also help them to make the connection between what they are learning in this unit and how it applies to other content areas.

In The Newsroom

Each AIMS Teaching Module contains a newsroom activity designed to help students make the relationship between what they learn in the classroom and how it applies in their world. The purpose of In The Newsroom is to actively involve each class member in a whole learning experience. Each student will have an opportunity to perform all of the tasks involved in production: writing, researching, producing, directing, and interviewing as they create their own classroom news program.

Extended Activities

These activities provide opportunities for students to work separately or together to conduct further research, explore answers to their own questions, or apply what they have learned to other media or content areas.

Link to the World

These activities offer ideas for connecting learners' classroom activities to their community and the rest of the world.

Culminating Activity

To wrap up the unit, AIMS Teaching Modules offer suggestions for ways to reinforce what students have learned and how they can use their new knowledge to enhance their world view.

VOCABULARY

Every ATM contains an activity that reinforces the meaning and usage of the vocabulary words introduced in the program content. Students will either read or find the definition of each vocabulary word, then use the word in a written sentence.

CHECKING COMPREHENSION

Checking Comprehension is designed to help you evaluate how well your students understand, retain, and recall the information presented in the AIMS Teaching Module. Depending on your students' needs, you may direct this activity to the whole group yourself, or you may want to have students work on the activity page independently, in pairs, or in small groups. Students can verify their written answers through discussion or by viewing the video a second time. If you choose, you can reproduce the answers from your Answer Key or write the answer choices in a Word Bank for students to use. Students can use this completed activity as a study guide to prepare for the test.

CONSUMABLE ACTIVITIES

The AIMS Teaching Module provides a selection of consumable activities, designed to specifically reinforce the content of this learning unit. Whenever applicable, they are arranged in order from low to high difficulty level, to allow a seamless facilitation of the learning process. You may choose to have students take these activities home or to work on them in the classroom independently, in pairs or in small groups.

CHECKING VOCABULARY

The Checking Vocabulary activity provides the opportunity for students to assess their knowledge of new vocabulary with this word game or puzzle. The format of this vocabulary activity allows students to use the related words and phrases in a different context.

TEST

The AIMS Teaching Module Test permits you to assess students' understanding of what they have learned. The test is formatted in one of several standard test formats to give your students a range of experiences in test-taking techniques. Be sure to read, or remind students to read, the directions carefully and to read each answer choice before making a selection. Use the Answer Key to check their answers.

ADDITIONAL AIMS MULTIMEDIA PROGRAMS

After you have completed this AIMS Teaching Module you may be interested in more of the programs that AIMS offers. This list includes several related AIMS programs.

ADDITIONAL READING SUGGESTIONS

AIMS offers a carefully researched list of other resources that you and your students may find rewarding.

ANSWER KEY

Reproduces tests and work pages with answers marked.

Real World Science: Fossils & Dinosaurs

THEMES

Real Word Science: Fossils & Dinosaurs discusses the main periods of prehistoric life, as well as the characteristics of various dinosaurs. Students will learn the physical features of dinosaurs and how scientists use these features to classify different species. In addition, they will study the theories surrounding the extinction of dinosaur life.

OVERVIEW

Fossils, or hardened body parts like bones and teeth, can tell us much about the kinds of dinosaurs that lived 65 million years ago. Scientists called paleontologists dig to find these hardened body parts. They also study the tracks of different dinosaurs to find out how quickly the dinosaurs moved. By looking at the teeth of dinosaurs, scientists can tell what kind of food the dinosaurs ate. Dinosaurs with sharp, pointed teeth were probably carnivores, or meat eaters, while dinosaurs with flat, round teeth were probably herbivores, or plant eaters . Most dinosaurs lived during the Mesozoic, or middle, era. The dinosaurs with legs that sprawled out to the sides, like a lizard's legs, were known as *Saurischia*. The dinosaurs with legs that stuck out beneath their bodies were known as *Ornithischia*. Many scientists believe that dinosaurs became extinct when a giant asteroid caused a large cloud of dust that blocked out the sun's heat.

OBJECTIVES

- To classify dinosaurs as carnivores or herbivores.
- To explain how a dinosaur's name describes its primary physical features.
- To examine the three eras during which dinosaurs lived.
- To discuss various theories regarding the extinction of dinosaurs.
- To accurately use selected vocabulary words related to dinosaurs.

Use this page for your individual notes about planning and/or effective ways to manage this AIMS Teaching Module in your classroom.

Our AIMS Multimedia Educational Department welcomes your observations and comments. Please feel free to address your correspondence to:

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Chatsworth, California 91311-4409

INTRODUCTION TO THE PROGRAM

Scientists who study fossils have been able to learn a great deal about dinosaurs by studying fossils found all over the world, connecting pieces of information and making hypotheses. Theories have been formed about the origins, characteristics and life cycles of plants and animals that lived in the past. *Real Word Science: Fossils & Dinosaurs* will introduce students to the creatures great and small that once lived on earth.

INTRODUCTION TO VOCABULARY

Ask students to think about the word "dinosaur." It comes from the Greek words *dinos*, which means terrible, and *sauros*, which means lizard. Actually, dinosaurs were not lizards at all, though some of them had similar features. Likewise, not all dinosaurs were that terrible. Some, such as the *Tyrannosaurus Rex*, were indeed ferocious hunters. However, other dinosaurs, like the *Compsognathus*, were only a few feet long.

FOCUS

Tell students to close their eyes and imagine the world of the dinosaur. The weather was unpredictable, and the earth was unstable. Earthquakes and volcanoes were much more common. Huge creatures roamed the land in search of food. The skies were filled with large prehistoric birds.

Ask students to keep this visual image in mind as they begin the unit.

DISCUSSION IDEAS

What is a fossil? Ask students to share their ideas freely as you record them on the board. What type of information can we get from fossils? Where are fossils found? (Fossils are the hardened remains of plants and animals that lived a long time ago. Fossils can tell us about an animal's eating habits, size, speed and physical characteristics. Fossils have been found all around the world.)

JUMP RIGHT IN

HOW TO USE THE *REAL WORD SCIENCE: FOSSILS & DINOSAURS* AIMS TEACHING MODULE

Preparation

- Read *Real Word Science: Fossils & Dinosaurs* **Themes, Overview,** and **Objectives** to become familiar with program content and expectations.
- Use **Preparation for Viewing** suggestions to introduce the topic to students.

Viewing *REAL WORD SCIENCE: FOSSILS & DINOSAURS*

- Set up viewing monitor so that all students have a clear view.
- Depending on your classroom size and learning range, you may choose to have students view *Real Word Science: Fossils & Dinosaurs* together or in small groups.
- Some students may benefit from viewing the video more than one time.

After Viewing *REAL WORD SCIENCE: FOSSILS & DINOSAURS*

- Select **Suggested Activities** that integrate into your classroom curriculum. If applicable, gather materials or resources.
- Choose the best way for students to work on each activity. Some activities work best for the whole group. Other activities are designed for students to work independently, in pairs, or in small groups. Whenever possible, encourage students to share their work with the rest of the group.
- Duplicate the appropriate number of **Vocabulary, Checking Comprehension**, and consumable activity pages for your students.
- You may choose to have students take consumable activities home, or complete them in the classroom, independently, or in groups.
- Administer the Test to assess students' comprehension of what they have learned, and to provide them with practice in test-taking procedures.
- Use the **Culminating Activity** as a forum for students to display, summarize, extend, or share what they have learned with each other, the rest of the school, or a local community organization.

SUGGESTED ACTIVITIES

Hands On

Divide students into four groups and explain that they are going to be paleontologists for a day. Using plaster of Paris, they will make trace fossils of their school's environment. Explain the process of pouring the plaster over the subject material, allowing it to harden and removing it from the site.

Provide each group with freshly mixed plaster. Allow them to explore the playground or schoolyard to search for a fossil subject. Ideas can include a leaf, twig, people or animal tracks, feathers or human artifacts such as coins or pencils. Assist students in using the plaster of Paris.

After the trace fossils have been collected, bring them inside and discuss their hidden secrets. What might the fossils tell people in the future about the environment of the school? What might they reveal about the inhabitants of the area, both animal and human?

Meeting Individual Needs

Ask students to make sentences using the following words. Encourage them to use a dictionary if they are unsure of the meanings. Make sure that their sentences display an understanding of the words as they relate to the program.

- prehistoric - living or occurring before the time of recorded history
- extinct - species which is no longer living
- fossil - hardened remains of plants or animals that lived a long time ago
- mineral - hard elements found in the layers of the earth

Connection to Language Arts

Many of the names associated with dinosaurs originate from Latin or Greek words. For example, "Paleozoic" comes from the word *paleo*, which means oldest, and the word *zoic*, which means life. In fact, many words from our everyday language are derived from older words. What are some other words from the lesson that originate from *paleo*? Can students think of another word derived from *zoic*? (paleontology, paleontologist; zoo, zoology)

Encourage students to use a dictionary to find the origins of dinosaur names, such as *Tyrannosaurus Rex* (from the Greek for "tyrant lizard king") and *Triceratops* (Greek for "three horn face").

Link to the World

What would the job of a paleontologist be like on a daily basis? Ask students to think about some of the things a paleontologist does. How would the work of a paleobotonist, who studies plant fossils, be different from a paleontologist who studies fossils found in the ocean? (A paleobotonist works on the land, while a paleontologist who studies fossils from the ocean might spend time diving in ocean waters.)

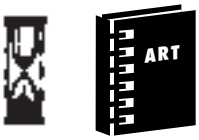
Would any of your students be interested in a job as a paleontologist? What kind of training and education might be involved? (Paleontologists must study many kinds of science, including geology, biology and chemistry. They must learn to have great patience while digging for fossils. It can take many days, weeks or months in an uncomfortable environment to find a single fossil.)

Extended Activity

Ask each student to choose a dinosaur from the list below. Encourage them to write one-page papers on their chosen dinosaurs by using encyclopedia and library books. They should include details about the dinosaurs' appearance, diet and environment, as well as any other interesting facts they can "dig up."

Triceratops
Brontosaurus
Brachiosaurus
Triceratops
Tyrannosaurus Rex
Compsognathus
Stegosaurus
Ankylosaurus
Protoceratops

Connection to Art



Using their dinosaur papers from the previous activity, ask students to draw a colorful picture of their dinosaur. Since scientists have no definite clues about the colors or skin patterns of dinosaurs, students can use their imaginations freely.

Encourage them to use colored pencils, watercolors or markers to add details to their pictures. In the background, they can include information about the dinosaur's environment. In addition, they can show the dinosaur engaging in a typical activity, such as hunting or eating leaves.

Critical Thinking


Extended Time

There are many theories that try to explain the extinction of dinosaurs. Some scientists believe that mammals were a cause. Mammals had larger brains than dinosaurs and the mammal's bodies offered more protection from cold weather. How might this have contributed to the extinction of dinosaurs? (When cold weather appeared, the mammals had a better chance of surviving. Also, because they were more intelligent, mammals were better hunters. They probably hunted small dinosaurs and ate dinosaur eggs.)

Scientists also believe that the changing continents were partly responsible for the extinction of dinosaurs. As great oceans drained, the swamps where the dinosaurs lived dried up. How might this have contributed to the extinction of dinosaurs? (Without the swamps, many plants died. The plant-eating dinosaurs had less food. As these dinosaurs died, the meat-eating dinosaurs had less food, too.)

Writing


60 Minutes

Students will need to use their imaginations for this activity. Ask them to imagine that they are newspaper reporters who travel back in time to the Mesozoic era. They will record what they see and write an article about their findings.

Encourage students to include details about the animal and plant life, weather, food and water sources, and land conditions (swamp, desert, forest, etc.). Where do dinosaurs go to hunt or to find shelter from predators? What kind of interactions take place between the dinosaurs?

When the articles are completed, ask students to work together to produce a Dinosaur Newspaper. Everyone's articles should be included, along with the illustrations created in the "Connection to Art" activity. Keep the newspaper in a place where everyone has a chance to read over it.

Culminating Activity


20 Minutes

Discuss the recent trend of dinosaur movies, toys, rides and exhibits. What motivates our curiosity about dinosaurs? Why do people seem to be fascinated by the idea of bringing dinosaurs back to life?

Encourage the class to talk about the appeal of things that are unknown. How might the unsolved mysteries of prehistoric life contribute to our interest in dinosaurs? What questions are still unanswered?

Name

VOCABULARY

The following terms are from *Real Word Science: Fossils & Dinosaurs*. Fill in the number of each term next to its closest definition.

1. dinosaurs
2. extinct
3. fossil
4. paleontologists
5. herbivore
6. carnivore
7. stride
8. Paleozoic
9. Mesozoic
10. Cenozoic

___ the oldest era in the history of dinosaur life; much marine life lived during this time

___ the bones, teeth and other remains of plants and animals that lived long ago

___ the distance from one footprint to the next footprint made by the same foot

___ animal who eats plants

___ the last era in the history of dinosaur life; mammals became important in this era

___ creatures, both large and small, that lived 65 million years ago

___ scientists who learn about dinosaurs by digging for and studying fossils

___ describes species that are no longer living, such as dinosaurs

___ animal who eats meat

___ the middle era in the history of dinosaur life

Name

CHECKING COMPREHENSION

Read the following sentences and circle the letter of the word that best fills each blank.

___1___ , or hardened body parts like bones and teeth, can tell us much about the kinds of dinosaurs that lived 65 million years ago. Scientists called ___2___ dig to find these hardened body parts. They also study the ___3___ of different dinosaurs to find out how quickly the dinosaurs moved. By looking at the teeth of dinosaurs, scientists can tell what kind of ___4___ . Dinosaurs with sharp, pointed teeth were probably ___5___, while dinosaurs with flat, round teeth were probably ___6___ . Most dinosaurs lived during the ___7___ , or middle, era. The dinosaurs with legs that sprawled out to the sides, like a lizard's legs, were known as ___8___ . The dinosaurs with legs that stuck out beneath their bodies were known as ___9___ . Many scientists believe that dinosaurs became extinct when ___10___ caused a large cloud of dust that blocked out the sun's heat.

1. A. Shells
   B. Fossils
   C. Rocks
   D. Minerals

2. A. paleontologists
   B. fossilists
   C. dinologists
   D. jurassians

3. A. skin
   B. teeth
   C. feathers
   D. tracks

4. A. fur they had
   B. sounds they made
   C. food they ate
   D. tracks they made

5. A. herbivores
   B. carnivores
   C. paleozores
   D. plateosaurs

6. A. herbivores
   B. mesavores
   C. carnivores
   D. omnivores

7. A. Mesozoic
   B. Paleozoic
   C. Cenozoic
   D. Cro-Magnon

8. A. *Saurischia*
   B. *Parasaurolophus*
   C. *Ornithischia*
   D. *Stegosaurus*

9. A. *Theropoda*
   B. *Tyrannosauras*
   C. *Creataceous*
   D. *Ornithischia*

10. A. an eclipse
    B. a star
    C. a large asteroid
    D. a Saurischia

Name

DINOSAUR MATCH-UP

Match each term on the left with the best definition on the right.

1. Paleozoic era	the time during which most dinosaurs lived
2. Ornithischia	an animal that usually has sharp, pointed teeth
3. Saurischia	scientists who digs for fossils
4. Paleontologist	the time in dinosaur history when most creatures lived in the water
5. Mesozoic era	the final era in dinosaur history
6. Herbivore	lizard-like creatures such as *Tyrannosaurus Rex*
7. Cenozoic era	creatures with bird-like hip joints
8. Carnivore	an animal that has flat, rounded teeth

Name

TRUE OR FALSE

Place a T next to statements that are true and an F next to statements that are false.

1. ___ There are only a few living dinosaurs left in the world today.
2. ___ Trace fossils are formed when footprints and other impressions are left in mud or dirt.
3. ___ Fossil teeth give paleontologists very little information about dinosaurs.
4. ___ Dinosaurs that ate plants usually had flat, rounded teeth.
5. ___ The Mesozoic era is divided into the Triassic, Jurassic and Cretaceous periods.
6. ___ *Triceratops* lived during the Paleozoic era.
7. ___ *Saurischia* included the largest known dinosaurs, like the *Apatosaurus*.
8. ___ The *Stegosaurus* walked on two legs and had sharp claws.
9. ___ Scientists have learned a great deal about the skin colorings of dinosaurs.
10. ___ Some paleontologists believe that harsh weather caused the dinosaurs to become extinct.

Name

DINO CHOICES

Circle the best answer to complete each sentence below.

1. Sixty-five million years ago, dinosaurs became: . . . . . **extinct** **endangered**

2. Fossils formed when minerals from the ground seeped into dinosaur bones and turned them to: . . . . . **soil** **stone**

3. By measuring the distance between one footprint and the next footprint made by the opposite foot, scientists can discover a dinosaur's average: . . . . . **weight** **pace**

4. Most dinosaurs roamed the earth during the Mesozoic era. "Meso" means: . . . . . **middle** **early**

5. Scientists have learned very little about the dinosaurs': . . . . . **height** **skin patterns**

6. Some paleontologists believe that dinosaurs became extinct because of: . . . . . **humans** **weather**

7. To protect the fossils they uncover, paleontologists sometimes cover the fossils with: . . . . . **dust** **plaster**

8. The word dinosaur means *terrible*: . . . . . ***lizard*** ***bird***

Name

FILL IN THE BLANKS

Fill in the blanks below using the following words.

paleontologist	Saurischia
Tyrannosaurus Rex	Triassic
Triceratops	Stegosaurus
Cenozoic	Ornithischia

1. The word _____ means "lizard hip."

2. A fossil from the Cretaceous period would be closer to the surface than a fossil from the _____ period.

3. _____ had horns to protect its head from predators.

4. A _____ spends a great deal of time digging for fossils.

5. The _____ had bony plates along its back.

6. _____ was a fierce dinosaur with sharp teeth and claws.

7. The dinosaurs known as _____ had hips like our modern-day birds.

8. During the _____ era, mammal populations increased.

Name

WORD SEARCH

The following words can be found in the maze below. The letters may be arranged horizontally, vertically, diagonally or backward.

dinosaur
fossil
extinct
carnivore
herbivore
Jurassic
Triassic
Paleozoic
Mesozoic
Cenozoic

G O C L C T C N I T X E
L B E N L H J N D A H Q
D I N O S A U R H M C O
T X O E J G R M C D A T
R F Z A X M A D T M R P
I B O J N O S B K C N S
A E I S M E S O Z O I C
S P C J S D I G H M V R
S N Q E L I C Z B A O P
I C A P J K L P O E R Q
C R H E R B I V O R E S
Y P A L E O Z O I C S R

Name

TEST

Circle the phrase which best answers each question.

1. Scientists can estimate the age of a fossil by carefully recording:

   - its size.
   - the weather conditions on the day the fossil was discovered.
   - its color.
   - the layer of earth in which the fossil was found.

2. Trace fossils were made when sand and mud covered up dinosaur:

   - bones.
   - teeth.
   - footprints, skin or feathers.
   - skulls.

3. Carnivores were a type of dinosaur that:

   - ate meat.
   - had sharp teeth.
   - included the *Tyrannosauras Rex*.
   - all of the above.

4. Many dinosaurs closely resembled modern-day:

   - mammals.
   - fish.
   - lizards.
   - none of the above.

5. *Saurischia* was a type of dinosaur that had hip bones similar to those of:

   - four-legged mammals.
   - reptiles.
   - birds.
   - humans.

Name

TEST (CONTINUED)

6. *Ornithischia* was a type of dinosaur that had hip bones similar to those of:

   - frogs.
   - lizards.
   - birds.
   - fish.

7. Dinosaurs are most often named after:

   - their most important body feature.
   - the person who first discovers them.
   - the area of the world in which they lived.
   - the kind of food they ate.

8. Dinosaur tracks can tell a paleontologist:

   - how fast the dinosaur traveled.
   - the size of the dinosaur's brain.
   - what the dinosaur's skin looked like.
   - all of the above.

9. Scientists refer to dinosaurs who ate plants as:

   - carnivores.
   - herbivores.
   - *Saurischia*.
   - Cretaceous.

10. Dinosaurs may have become extinct because of:

    - a giant asteroid.
    - a series of earthquakes.
    - violent weather.
    - all of the above.

ADDITIONAL AIMS MULTIMEDIA PROGRAMS

You and your students might also enjoy these other AIMS Multimedia programs:

Real World Science Series
- *Real World Science: Habitats*
- *Real World Science: Rocks and Minerals*
- *Real World Science: Seeds and Plants*
- *Real World Science: Simple Machines*
- *Real World Science: The Solar System*
- *Real World Science: Trash and the Environment*
- *Real World Science: Weather and Climate*

ANSWER KEY for page 18

VOCABULARY

The following terms are from *Real Word Science: Fossils & Dinosaurs*. Fill in the number of each term next to its closest definition.

1. dinosaurs
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3. fossil
4. paleontologists
5. herbivore
6. carnivore
7. stride
8. Paleozoic
9. Mesozoic
10. Cenozoic

8 the oldest era in the history of dinosaur life; much marine life lived during this time

3 the bones, teeth and other remains of plants and animals that lived long ago

7 the distance from one footprint to the next footprint made by the same foot

5 animal who eats plants

10 the last era in the history of dinosaur life; mammals became important in this era

1 creatures, both large and small, that lived 65 million years ago

4 scientists who learn about dinosaurs by digging for and studying fossils

2 describes species that are no longer living, such as dinosaurs

6 animal who eats meat

8 the middle era in the history of dinosaur life

ANSWER KEY for page 19

CHECKING COMPREHENSION

Read the following sentences and circle the letter of the word that best fills each blank.

___1___ , or hardened body parts like bones and teeth, can tell us much about the kinds of dinosaurs that lived 65 million years ago. Scientists called ___2___ dig to find these hardened body parts. They also study the ___3___ of different dinosaurs to find out how quickly the dinosaurs moved. By looking at the teeth of dinosaurs, scientists can tell what kind of ___4___ . Dinosaurs with sharp, pointed teeth were probably ___5___, while dinosaurs with flat, round teeth were probably ___6___ . Most dinosaurs lived during the ___7___ , or middle, era. The dinosaurs with legs that sprawled out to the sides, like a lizard's legs, were known as ___8___ . The dinosaurs with legs that stuck out beneath their bodies were known as ___9___ . Many scientists believe that dinosaurs became extinct when ___10___ caused a large cloud of dust that blocked out the sun's heat.

1. A. Shells
   (B.) Fossils
   C. Rocks
   D. Minerals

2. (A.) paleontologists
   B. fossilists
   C. dinologists
   D. jurassians

3. A. skin
   B. teeth
   C. feathers
   (D.) tracks

4. A. fur they had
   B. sounds they made
   (C.) food they ate
   D. tracks they made

5. A. herbivores
   (B.) carnivores
   C. paleozores
   D. plateosaurs

6. (A.) herbivores
   B. mesavores
   C. carnivores
   D. omnivores

7. (A.) Mesozoic
   B. Paleozoic
   C. Cenozoic
   D. Cro-Magnon

8. (A.) *Saurischia*
   B. *Parasaurolophus*
   C. *Ornithischia*
   D. *Stegosaurus*

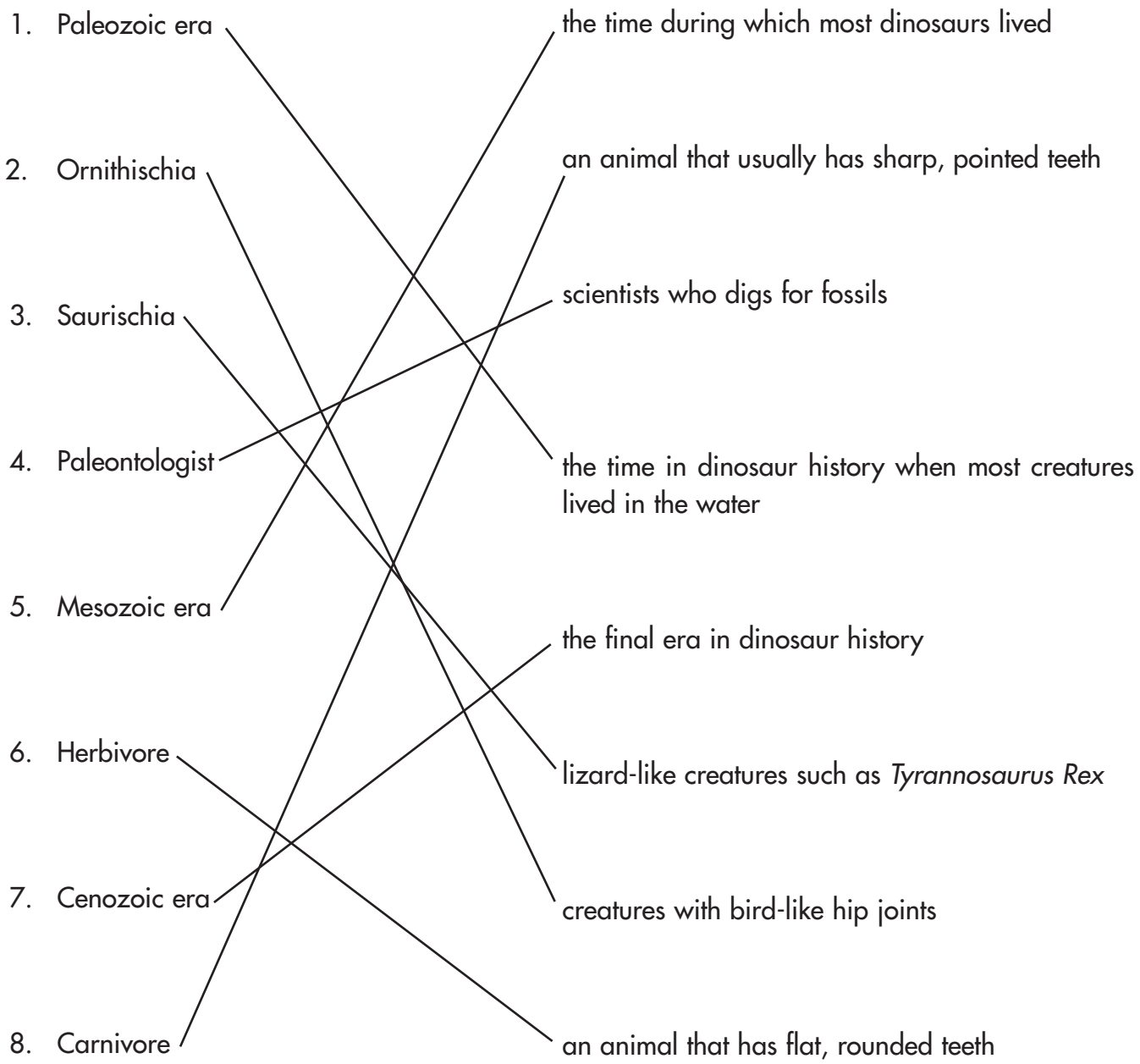
9. A. *Theropoda*
   B. *Tyrannosauras*
   C. *Creataceous*
   (D.) *Ornithischia*

10. A. an eclipse
    B. a star
    (C.) a large asteroid
    D. a Saurischia

ANSWER KEY for page 20

DINOSAUR MATCH-UP

Match each term on the left with the best definition on the right.



ANSWER KEY for page 21

TRUE OR FALSE

Place a T next to statements that are true and an F next to statements that are false.

1. **F** There are only a few living dinosaurs left in the world today.
2. **T** Trace fossils are formed when footprints and other impressions are left in mud or dirt.
3. **F** Fossil teeth give paleontologists very little information about dinosaurs.
4. **T** Dinosaurs that ate plants usually had flat, rounded teeth.
5. **T** The Mesozoic era is divided into the Triassic, Jurassic and Cretaceous periods.
6. **F** *Triceratops* lived during the Paleozoic era.
7. **T** *Saurischia* included the largest known dinosaurs, like the *Apatosaurus*.
8. **F** The *Stegosaurus* walked on two legs and had sharp claws.
9. **F** Scientists have learned a great deal about the skin colorings of dinosaurs.
10. **T** Some paleontologists believe that harsh weather caused the dinosaurs to become extinct.

ANSWER KEY for page 22

DINO CHOICES

Circle the best answer to complete each sentence below.

1. Sixty-five million years ago, dinosaurs became: . . . . . **extinct** **endangered**

2. Fossils formed when minerals from the ground seeped into dinosaur bones and turned them to: . . . . . **soil** **stone**

3. By measuring the distance between one footprint and the next footprint made by the opposite foot, scientists can discover a dinosaur's average: . . . . . **weight** **pace**

4. Most dinosaurs roamed the earth during the Mesozoic era. "Meso" means: . . . . . **middle** **early**

5. Scientists have learned very little about the dinosaurs': . . . . . **height** **skin patterns**

6. Some paleontologists believe that dinosaurs became extinct because of: . . . . . **humans** **weather**

7. To protect the fossils they uncover, paleontologists sometimes cover the fossils with: . . . . . **dust** **plaster**

8. The word dinosaur means *terrible*: . . . . . ***lizard*** ***bird***

ANSWER KEY for page 23

FILL IN THE BLANKS

Fill in the blanks below using the following words.

paleontologist	Saurischia
Tyrannosaurus Rex	Triassic
Triceratops	Stegosaurus
Cenozoic	Ornithischia

1. The word **Saurischia** means "lizard hip."

2. A fossil from the Cretaceous period would be closer to the surface than a fossil from the **Triassic** period.

3. **Triceratops** had horns to protect its head from predators.

4. A **paleontologist** spends a great deal of time digging for fossils.

5. The **Stegosaurus** had bony plates along its back.

6. **Tyrannosaurus Rex** was a fierce dinosaur with sharp teeth and claws.

7. The dinosaurs known as **Ornithischia** had hips like our modern-day birds.

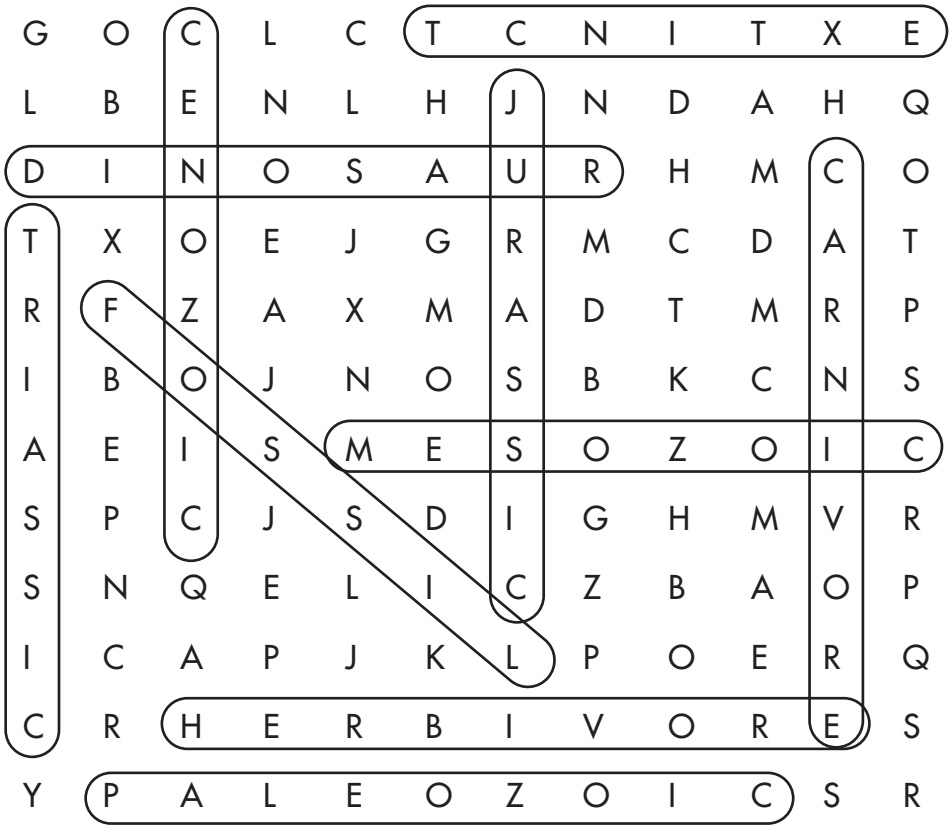
8. During the **Cenozoic** era, mammal populations increased.

ANSWER KEY for page 24

WORD SEARCH

The following words can be found in the maze below. The letters may be arranged horizontally, vertically, diagonally or backward.

dinosaur
fossil
extinct
carnivore
herbivore
Jurassic
Triassic
Paleozoic
Mesozoic
Cenozoic



ANSWER KEY for page 25

TEST

Circle the phrase which best answers each question.

1. Scientists can estimate the age of a fossil by carefully recording:

   - its size.
   - the weather conditions on the day the fossil was discovered.
   - its color.
   - (the layer of earth in which the fossil was found.)

2. Trace fossils were made when sand and mud covered up dinosaur:

   - bones.
   - teeth.
   - (footprints, skin or feathers.)
   - skulls.

3. Carnivores were a type of dinosaur that:

   - ate meat.
   - had sharp teeth.
   - included the *Tyrannosauras Rex*.
   - (all of the above.)

4. Many dinosaurs closely resembled modern-day:

   - mammals.
   - fish.
   - (lizards.)
   - none of the above.

5. *Saurischia* was a type of dinosaur that had hip bones similar to those of:

   - four-legged mammals.
   - (reptiles.)
   - birds.
   - humans.

ANSWER KEY for page 26

TEST (CONTINUED)

6. *Ornithischia* was a type of dinosaur that had hip bones similar to those of:

   - frogs.
   - lizards.
   - **birds.**
   - fish.

7. Dinosaurs are most often named after:

   - **their most important body feature.**
   - the person who first discovers them.
   - the area of the world in which they lived.
   - the kind of food they ate.

8. Dinosaur tracks can tell a paleontologist:

   - **how fast the dinosaur traveled.**
   - the size of the dinosaur's brain.
   - what the dinosaur's skin looked like.
   - all of the above.

9. Scientists refer to dinosaurs who ate plants as:

   - carnivores.
   - **herbivores.**
   - *Saurischia*.
   - Cretaceous.

10. Dinosaurs may have become extinct because of:

    - a giant asteroid.
    - a series of earthquakes.
    - violent weather.
    - **all of the above.**