

Lesson B2–14

Exploring Other Animals

Unit B. Animal Science and the Industry

Problem Area 2. Identifying and Understanding the Segments of the Animal Science Industry

Lesson 14. Exploring Other Animals

New Mexico Content Standard:

Pathway Strand: Animal Systems

Standard: I: Apply knowledge of anatomy and physiology to produce and/or manage animals in a domesticated or natural environment.

Benchmark: I-A. Use classification systems to explain basic functions of animal anatomy and physiology.

Performance Standard: 1. Describe functional difference in animal structures and body systems. 2. Classify animals according to anatomy and physiology.

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Discuss kinds of birds and their management.
2. Discuss kinds of rodents and their management.
3. Discuss kinds of reptiles and their management.
4. Discuss kinds of other animals and their management.

List of Resources. The following resources may be useful in teaching this lesson:

Lee, Jasper S. *Introduction to Livestock and Companion Animals 2nd Edition*. Danville, Illinois: Interstate Publishers, Inc. 2000 (Textbook and Activity Manual Chapter 17)

Other Resources. The following resources will be useful to students and teachers:

Internet keywords: bird, aviary, hamster, snake, pot bellied pig, turtle, and companion animals.

List of Equipment, Tools, Supplies, and Facilities

Writing surface
Overhead projector
Transparencies from attached masters
Copies of student lab sheet

Terms. The following terms are presented in this lesson (shown in bold italics):

Cavies
Diurnal
Gerbils
Greenfood
Grit
Plastron
Reptile
Rodent
Scutes
Tortoise

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

Find someone (student, teacher, friend) that has an unusual pet. Ask them if they could bring it in and answer questions from students about it. Pets may include but are not limited to turtles, snakes, pot bellied pigs, insects, ferrets, reptiles, and spiders. Make sure the owner is trustworthy to know how to properly handle their pet so no possible injuries can occur.

Summary of Content and Teaching Strategies

Objective I: Discuss kinds of birds and their management.

Anticipated Problem: How do you raise birds as pets?

- I. There are seven popular bird groups that each have several species and varieties. You may like a certain bird for its colors or because it can talk. No matter what kind of bird you like, make sure you have the proper feed, supplies, and accessories to raise it successfully. The following is a brief description on birds and their management. If you are interested in raising a type of bird, find out more about it before you make the investment.
 - A. Cockatiels and Parakeets are in the same order and therefore similar to parrots. They are easy to train and very colorful. Cockatiels like cereal grains, fruit, and just about anything you put before them. Parakeets and Cockatiels are both very friendly birds as a rule and enjoy being properly handled.
 - B. Finches come in several varieties and grow to five inches tall. They eat standard birdseed and the males tend to produce unique songs. These are inexpensive birds that stay small.
 - C. Lovebirds are types of parrots that are very colorful. They are affectionate and easy to tame when they are still young. These birds do not talk and they like cereal grains, fruit, and greenfood. At maturity they are 5.6 inches tall.
 - D. Canaries are brightly colored birds that prefer large cages. Many even prefer outdoor aviaries. They mainly eat seeds and some greenfood and grow to be 5–7 inches tall at maturity.
 - E. Budgerigars are native to Australia and can be very talkative. Unfortunately many have health problems. These birds are very colorful and eat a feed mix designed for them. At maturity they are up to 7 inches tall.
 - F. Amazon Parrots are very talkative when trained to do so. They make good pets because they are very affectionate. They prefer large cages and grow up to 15 inches tall at maturity.
 - G. Macaws are types of parrots. They are wonderful pets because of their color, intelligence, and playful behaviors. They are large birds that can get up to 36 inches at maturity.
 - H. Management of any birds includes keeping males away from females if you don't want them to reproduce. There are commercial feeds available designed for each type of bird. Often birds need supplements like nutritious treats or fruit. **Greenfood** is any vegetable that is not dried down like corn and carrots. Almost all birds need grit. **Grit** is a finely ground material similar to sand that birds need to promote gizzard action.
 - I. Since birds can get several different diseases, keeping them well fed and out of harsh weather will be beneficial to the bird's health. One of the first things you may notice if your bird is sick is that it is not eating well or its feathers look ragged or they are missing.

Use TM: B2–14A to discuss features of birds.

Objective 2: Discuss kinds of rodents and their management.

Anticipated Problem: How do I raise rodents?

- II. **Rodent** is the general name for animals with two large front teeth including mice, gerbils, and rats. They are mammals and make good pets in confined areas.
- A. **Cavies** are small rodents often called Guinea Pigs. They are good pets because they are calm and easy to care for. They only weigh about 2 pounds at maturity and live for about 5 years. They can be short-haired or long-haired and come in many different colors and combination of colors. They are easy to feed as long as you remember to supplement with Vitamin C since they can't synthesize their own. You may feed them hay or grass and a pellet feed designed especially for cavies. Always keep the feed in a refrigerator unexposed to light so the Vitamin C does not break down. Most cavies require 2 square feet per animal so they get proper exercise. Always keep the cage clean and dry.
- B. Hamsters are nocturnal rodents that should be handled often to keep them tame. They come in 3 types for use as pets: Golden Hamster, Angora Hamster, and the Chinese Hamster. All varieties like nuts as treats but should be fed a commercial feed designed especially for them. You can also feed your hamster fresh fruits and vegetables but avoid raw beans, tomatoes, and green potatoes. You can house your hamster in a wire cage, a plastic cage, or in an aquarium. Line the bottom with shavings, but avoid cedar ones. Always keep the living environment clean and dry. You should provide your hamster with places to burrow and get exercise.
- C. **Gerbils** are quick and curious rodents that grow up to 4 inches long and weigh 3 ounces at maturity. They are *diurnal*, or animals that sleep during the night and are awake during the day. Gerbils tend to be shy and should be handled often, but very carefully. Feeding gerbils is inexpensive because they only eat a tablespoon of food per day. Use a commercial feed, but supplement with treats of fresh grass, lettuce, or apples. When choosing a home for your gerbil make sure it provides the rodent with exercise and hiding spots. Bedding should be replaced at least once a week.
- D. Mice and rats are rodents that make excellent pets because they are friendly and can be trained to do various things. They come in various colors. Mice and rats need fresh water and can be fed seeds, nuts, bread, and other foods. Always keep cages clean and dry. Keep them healthy by disinfecting their cages and giving them something to gnaw on .

Use LS: B2-14A to research rodents.

Objective 3: Discuss kinds of reptiles and their management.

Anticipated Problem What kinds of reptiles make good pets?

- III. A *reptile* is an ectothermic animal with lungs and dry scaly skin. As pets, lizards, snakes, and turtles are often used. Since many reptiles can live up to 20 years, getting one as a pet is a long term commitment.
- A. Turtles have many unique terms to describe their anatomy. **Tortoise** is the common term used to describe terrestrial turtles. Their shells are covered with scute. **Scutes** are large scale-like structures that are made of keratin and cover shells of turtles. Since the scutes have nerve endings, turtles can tell if something touches them. **Plastron** is found under the chest of turtles and is made of bony plates covered with scutes. Turtles reproduce by laying eggs. They can pull in their head, legs, and tail under their shell for protection. Some varieties are very large and others can be dangerous so make sure you know what you are getting.
- B. Snake are reptiles with long tails. They are not for everyone because they need owners that are committed to their special needs. There are several species used for pets that have different food and environmental requirements. Two types include garter snakes and pythons. Always make sure housing is secure so your snake can't escape. Research the specific kind of snake you want before deciding what supplies and food you will need for it.
- C. Lizards are reptiles with tails, four legs, movable eyelids, and ear openings. They reproduce by laying eggs and come in many shapes, colors, and sizes. Always find out how large the lizard will be at maturity to ensure you will be able to provide it with a proper environment.

Use TM: B2–14B to discuss factors to consider when selecting a reptile.

Objective 4: Discuss kinds of other animals and their management.

Anticipated Problem: What other animals could I keep as pets?

- IV. There are many animals used as pets. Some others include pot bellied pigs, ferrets, rabbits, hedgehogs, and spiders.
- A. Pot bellied pigs are personable and intelligent pigs but require much time from their owners. Pigs are easy to train, they are clean, quiet, and playful animals. They can be time consuming because they are very curious and can get into things because they bore easily. They may teach themselves to open your refrigerator or cupboards and help themselves. Sometimes they become aggressive when begging for food. Since pigs root around naturally you may find items in you house tipped over or holes in your yard. Pot bellied pigs can live up to 18 years and weigh around 125 pounds. Their hooves and tusks need to be trimmed often. Always make sure local regulations do not forbid ownership before you purchase one.

- B. Rabbits come in many sizes and color patterns. They come in 45 breeds based on their weight. They reproduce quickly so keep males and females apart if you don't want baby rabbits. Pelleted food designed especially for rabbits is best, but you may also feed them fruit, vegetables, and greenfood in small amounts. Always keep fresh water available and make sure cages are clean and dry.
- C. Hedgehogs have quills covering their bodies, but are not dangerous if the animal is properly treated and handled. They can weigh up to 3 pounds at maturity and are up to 12 inches long. Hedgehogs eat worms and other foods like mealworms. Commercial cat food can also be fed to hedgehogs. Their environment should include exercise equipment and bedding that is clean and dry.

Use TM: B2–14C to discuss anatomy of rabbits and hedgehogs.

Review/Summary. Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used to determine which objectives need to be reviewed or taught over with a different approach. Questions provided in recommended textbooks may also be used to help review.

Application. Application can involve student activity with the provided labs.

Evaluation. Evaluation should focus on student achievement of the objectives for each lesson. Various techniques can be used, such as performance, on the application activities. A sample written test is attached.

Answers to Sample Test:

Part One: Matching

1 = f, 2 = d, 3 = c, 4 = e, 5 = b, 6 = a

Part Two: Completion

1. reptile
2. Rodent
3. Scutes
4. Tortoise

Part Three: Short Answer

1. Lizards, snakes, turtles
2. Rats, mice, hamsters, cavies, gerbils

Test

Lesson B2–14: Exploring Other Animals

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | | |
|--------------|------------|-------------|
| a. Cavies | c. Diurnal | e. Gerbils |
| b. Greenfood | d. Grit | f. Plastron |

- _____ 1. Found under the chest of turtles and is made of bony plates covered with scutes.
- _____ 2. A finely ground material similar to sand that birds need to promote gizzard action.
- _____ 3. Animals that sleep during the night and are awake during the day.
- _____ 4. Quick and curious rodents that grow up to 4 inches long and weigh 3 ounces at maturity.
- _____ 5. Any vegetable that is not dried down like corn and carrots.
- _____ 6. Small rodents often called Guinea Pigs.

Part two: Completion

Instructions. Provide the word or words to complete the following statements.

1. A _____ is an ectothermic animal with lungs and dry scaly skin.
2. _____ is the general name for animals with two large front teeth including mice, gerbils and rats.
3. _____ are large scale like structures that are made of keratin and cover shells of turtles.
4. _____ is the common term used to describe terrestrial turtles.

Part Three: Short Answer

Instructions. Provide information to answer the following questions.

1. Name three examples of reptiles:

2. Name three examples of rodents:

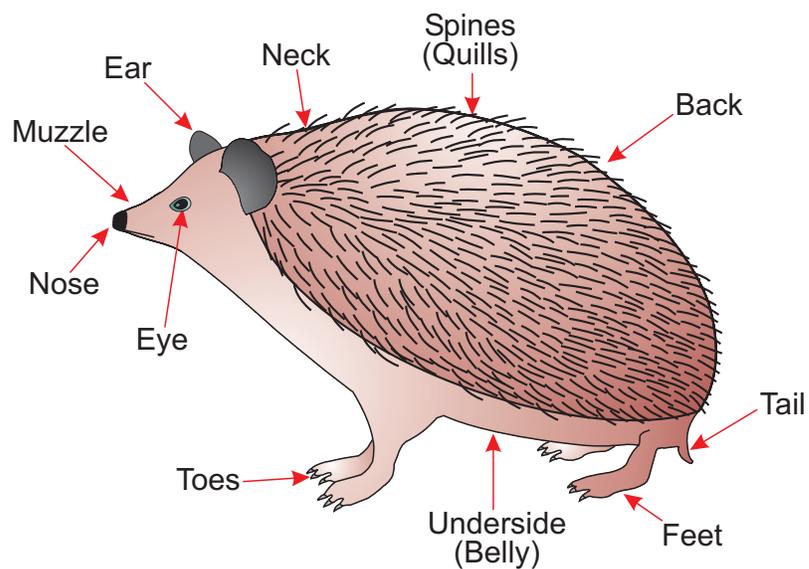
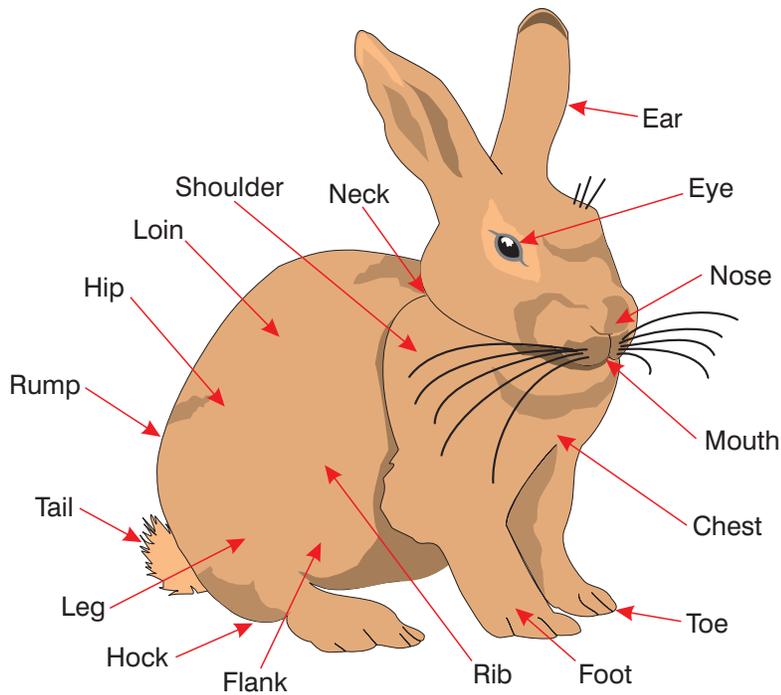
FEATURES OF SELECTED BIRDS

Kind	Weight (grams)	Normal Life Span (years)	Considerations/ Features
Finches	10–15	5–10	Easy to care for
Canaries	15–30	10–20	Easy to care for; males are singers
Budgerigars	30–35	10–20	Easy to care for
Cockatiels	80–90	10–20	Easy to care for and train
Lovebirds	40–50	10–20	Taming and training are more difficult
African greys	400–500	60–70	Can be trained to talk; enjoy talking
Macaws	1,000–1,400	60–70	Some can be trained to talk; interesting; colorful

FACTORS TO CONSIDER WHEN SELECTING A REPTILE:

- **Do I have the proper environment for the reptile?**
- **Am I going to be able to properly feed it?**
- **Am I prepared to have it for its lifespan?**
- **Do I know enough about handling the animal to do so?**
- **Is the reptile calm and willing to be handled without endangering the reptile or owner?**

RABBIT AND HEDGEHOG ANATOMY



Lab Sheet

Purpose:

To research a rodent.

Procedure:

Obtain information to fill in the following table.

Materials:

- Copy of lab sheet
- Research information
- Writing utensil

Kind of rodent: _____

Scientific classification:

Description of rodent:

Reproduction:

Feeding:

Equipment needed:

Training:

Health care:

Advantages of rodent as a pet: