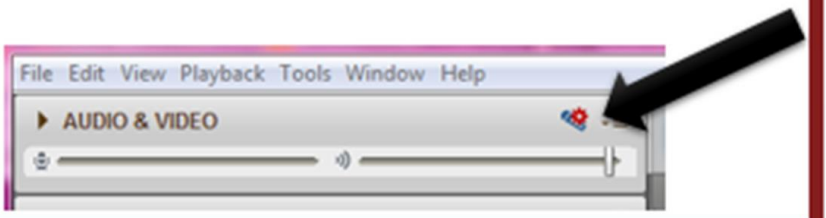
Behavioral Adaptations

Unit 6 Lesson 3

Attendance link: http://goo.gl/forms/2fwxbrTZMk

EXPECTATIONS

How to set up your microphone:
Go to Tools -> Audio -> Audio set up wizard
Run the wizard.
It will set up your speakers first then your mic.
OR
Click on the blue mic with the red gear.



- Required Class Connects
  - Tuesday, Wednesday, & Thursday
  - 1:30-2:30 pm

- Be active and participate in class.
- Be respectful to your classmates

- Be positive in the chat box and use it correctly.
- Have a working microphone!
  - You will need it during the lessons and break out rooms.

- If you have a question, please place it in the chat box and repost it if I don't see it.

Objectives

- Give an example of how behavioral responses may be determined by heredity or past experience.
- Explain how behavioral adaptations help plants survive.
- Explain how behavioral adaptations differ from structural adaptations.
- Explain how behavioral adaptations help animals survive.

We have been looking at structural adaptations of animals. But animals can also have behavioral adaptations.

This type of adaptation cannot be seen on the body. It is the way an animal reacts or behaves in certain situations.

Behavioral Adaptations...

Behavioral Adaptations allow animals to respond to life needs.

In simple animals, behavior is governed almost entirely by instinct, meaning that it is pre-programmed by an animal's genes. In more complex animals, instinctive behavior is often modified by learning, producing more-flexible responses to the outside world.

Two types of behavioral adaptations

- Innate behaviors
  - do not have to be learned or practiced.
  - They are also called instinctive **behaviors**.
  -
  - An instinct is the ability of an animal to perform a **behavior** the first time it is exposed to the proper stimulus.

- Learned behaviors
  - **Learning** is a change in behavior that occurs as a result of experience.
  - Compared with innate behaviors, learned behaviors are more flexible. They can be modified to suit changing conditions.

Which of the following is not a behavioral adaptation?

A. A squirrel buries acorns to dig up and eat later.

B. A honeybee does a dance to tell the other bees where to find flowers.

C. Grass stops growing during a drought and begins growing again when it rains.

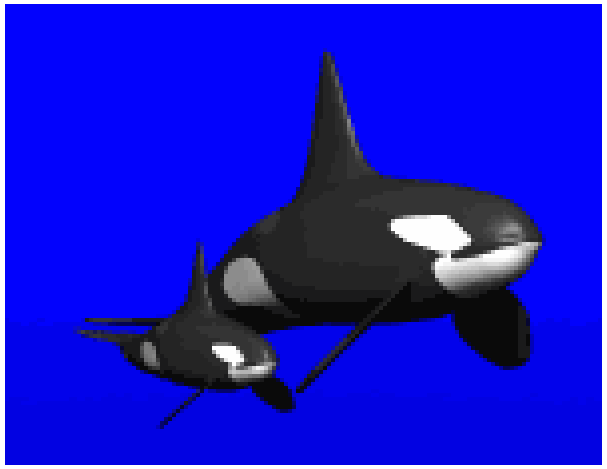
D. The spines of a cactus protect it from animals.

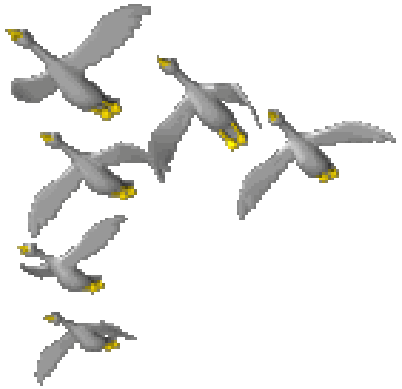
D

Behavioral Adaptations

1. Migration - seasonal or periodic movement of animals in response to changes in climate or food availability, or to ensure reproduction.

Migration most commonly involves movement from one area to another and then back again.





Examples: geese, whales, salmon, Monarch butterflies

Behavioral Adaptations

2. **<u>Hibernation</u> – adaptive winter survival technique where animal becomes inactive and all body processes slow down.**

In cold weather most animals must eat large quantities of food to obtain the energy needed to carry on normal body activities.

Examples: bears, chipmunks, squirrels, bats,

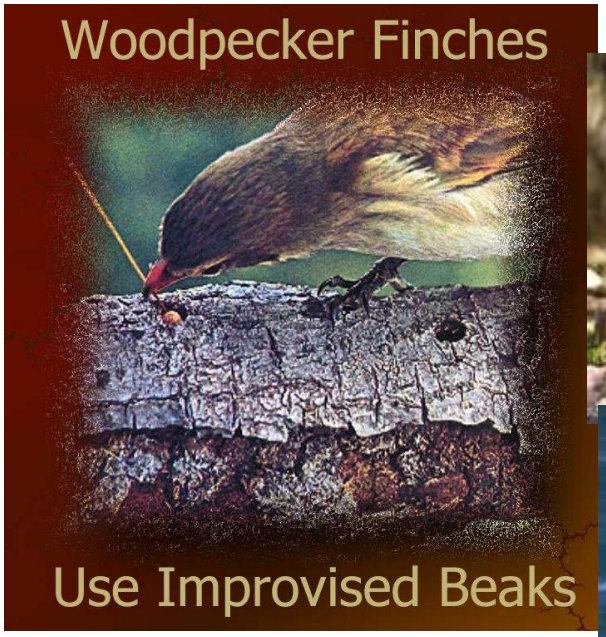
Behavioral Adaptations

3. **<u>Living in a Group</u> – more eyes in a group to watch out for prey or predator, protection**

Examples: fish, wildebeest, walruses, lions

Behavioral Adaptations

4. Tool Use - any object manipulated by an animal in order to perform a specific task. (monkeys, otters, birds)



5. Playing Dead - By pretending that they are dead, some animals escape bodily harm. (snakes, possums)

Behavioral Adaptations

6. Calling – communication between animals

7. Threatening Gestures – scares off potential predators

We can divide **Behavioral Adaptations** into two groups:

Innate

These behaviors happen naturally & don't have to be learned.

Learned

These behaviors must be taught.

Instinctive behaviors

=

happen naturally & don't need to be learned

Methods of gathering & storing food

Defending oneself

Hibernating

Finding shelter

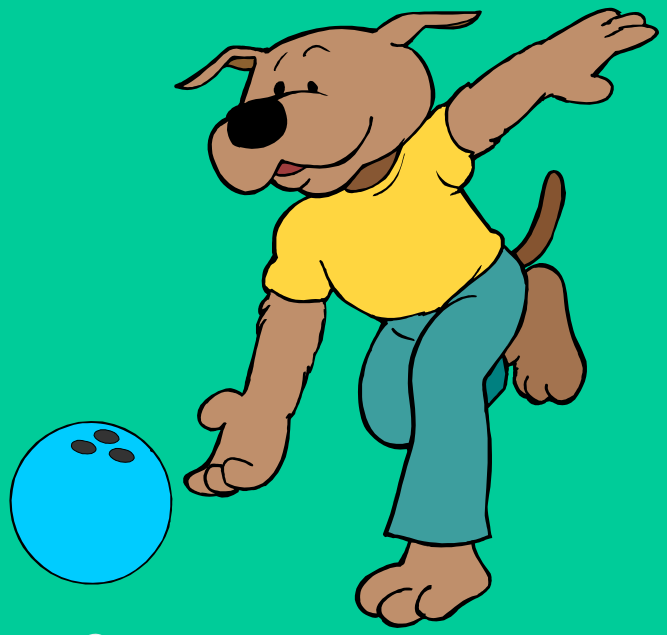
Raising young

Migrating

Learned behaviors

=

Obtained by interacting with the environment and cannot be passed on to the next generation except by teaching.

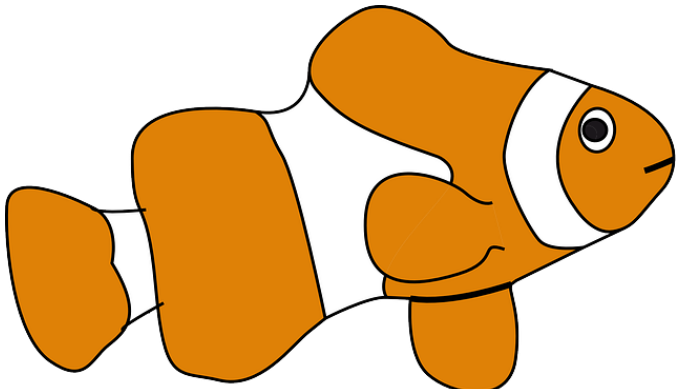


Behavioral Adaptation

Behavioral Adaptation

An action that aids in survival

Clown fish seek shelter from predators in sea anemones. Sea anemones are poisonous to other marine creatures.



Behavioral Adaptation

Behavioral Adaptation

An action that aids in survival

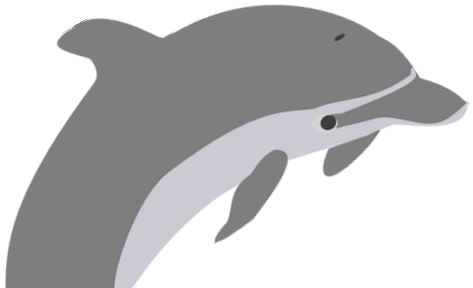
Lions stay together in a pride. As a group they can help each other hunt, care for young, and watch for danger.

A bear's body slows down in the winter. This helps them survive the long winter temperature and scarce food during winter months. Many know this as hibernation. Most bears do not sleep through the entire winter. They do get up and change dens, so this is not true hibernation, but a winter sleep.

Physiological Adaptation

Jobs of the body parts controlling life process that aid in survival.

Dolphins are mammals and need to breath air. They spend their entire lives in the water and their body's have adapted so that they can hold their breath for several minutes.



Which of the following is a behavioral adaptation of the Venus fly trap?

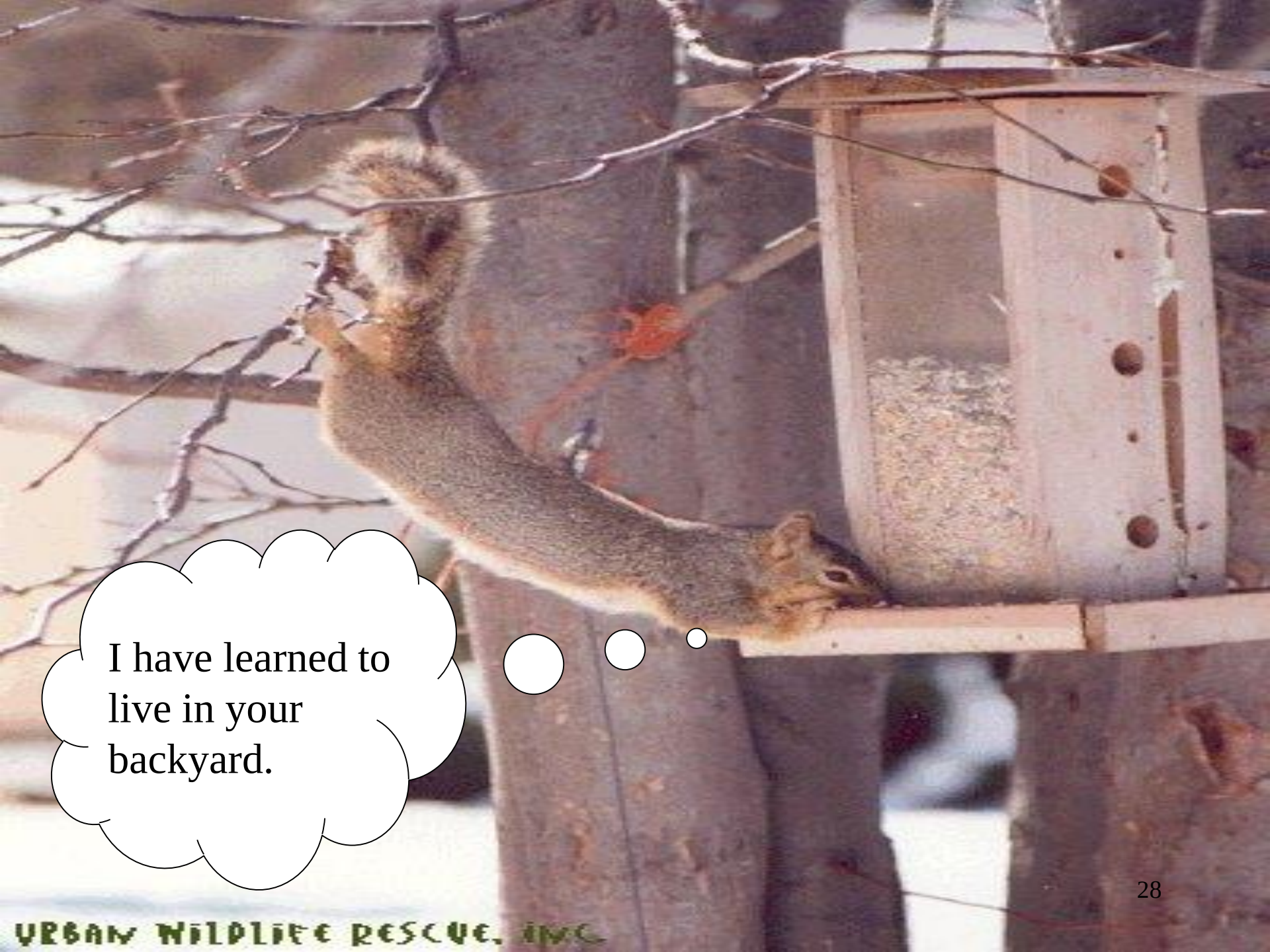
A. Leaves that close when touched
B. Leaves that perform photosynthesis
C. Roots that the plant uses to obtain water
D. Flowers to attract pollinators

A

Learned Behavior

Humans have destroyed many animal habitats. Many animals have learned to adapt to their new surroundings. They have found shelter, food, and learned how to stay away from moving vehicles (well most of the time).

I have learned to adapt to my new home.


I have learned to live in your backyard.
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Innate or Learned

- A chick hatches from an egg.
  - innate
- A child reading.
  - learned
- Spider weaves a web.
  - innate
- A dog runs to the kitchen every time it hears a can opener.
  - learned
- A newborn foal stands up to nurse from its mother.
  - innate
- A stickleback fish attaches fish with red belly.
  - innate

Assignment

- OLS
  - 8 questions online to master