

Welcome To 7th grade Life Science!

Mrs. Winters **Hot Sync**

Tuesday 11/19/13

Answer the following questions in complete sentences on a **BLANK** sheet of paper.

Materials Needed

Today

Please take these materials out of your backpack.

- Pencil
- Sheet of paper for notes

If you saw a monkey with short dark green fur, long and strong claws/fingernails, and slender bodies, what type of environment would you think they live in? Give reasons.

Write this down!

Darwin's Theory of Natural Selection

- Organisms with traits that allowed them to survive under particular environmental conditions produced more offspring.
- Eventually those traits would be common in the species.
- <http://www.dnatube.com/video/11928/Natural-Selection-and-Adaptation>

Virtual
Lab



How can natural
selection be
modeled?



Resources



Selective Breeding

- Selective breeding is breeding plants and animals to get offspring with desired characteristics.
- This does not lead to a new species—the organism can still breed with other members of its species.

Write this down!



Write this down!

Genetic Variation

- Sometimes changes occur in genes and a new trait is created.
- If the trait is beneficial, the organism may survive and pass the trait on to the next generation.
- Genetic variation is necessary for evolution to occur.



Population Growth and Struggle to Survive

- Although resources are limited, animals often produce more offspring than could survive.



- Darwin decided this was a natural process that selected which organism survived, and called it **natural selection**.



- **Adaptation** refers to traits that increase the likelihood of surviving and reproducing in a particular environment.



Write this down!

Natural Selection

- Four steps or requirements of Darwin's theory of evolution by natural selection:
 - Step 1: Overproduction
 - Step 2: Relative similarity
 - Step 3: Inherited variation
 - Step 4: Natural selection

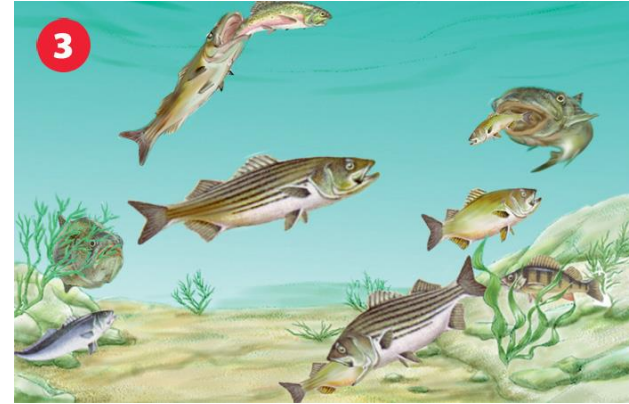


Natural Selection (cont.)

Overproduction



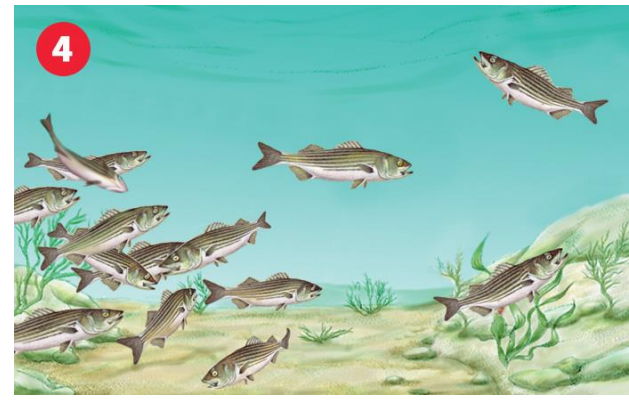
Inherited Variation



Variation



Natural Selection

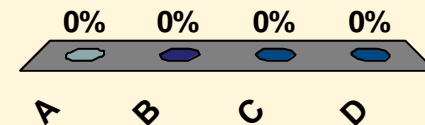


LESSON 1 Review



What did Darwin observe about the tortoises and finches in the Galapagos?

- A their large size
- B their similarity to those on the mainland
- C** their adaptations to their environments
- D their friendliness



Resources

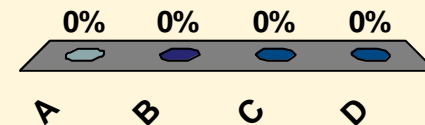


LESSON 1 Review



What is necessary for micro evolution to occur?

- A selective breeding
- B** genetic variation
- C populations isolated on islands
- D none of the above



Resources

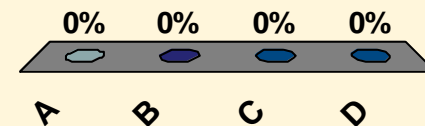


LESSON 1 Review



What is not a main source of genetic variation?

- A** differences in diet
- B** sexual reproduction
- C** mutations
- D** gamete formation



Resources

