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Grade 4

Science Remote Learning Assignments

Week 3: April 6th - April 9th

Please note that the work for this week is included below. Scroll down until you see each day's lesson.

Day	Assignments
Monday 4/6/20	Part A: **Review the lesson titled "Lesson 6 – Animal Variations and Response to Environment"** Part B: **Watch 3** videos on Brainpop. (username:girlsprep password: brainpop) 1. Camouflage 2. Hibernation 3. Migration Part C: **Complete the exit ticket on Illuminate CLICK HERE**
Tuesday 4/7/20	No Science lesson today
Wednesday 4/8/20	Part A: **Review the lesson titled "Lesson 7 - Animal Adaptations"** Part B: **Complete the "Battle of the Beaks" Activity OR Watch** "Natural Selection" video on Brainpop**.** (username: girlsprep password: brainpop) Part C: **Complete the exit ticket on Illuminate CLICK HERE**
Thursday 4/9/20	No Science lesson today
Friday 4/10/20	**Spring Break**

**You must know your ID number in order to submit your answers in Illuminate. If you do not know your ID number, please let your teacher know and they can help you.*

*For LAST WEEK's (3/30-4/3) exit ticket answers, click here

Monday, April 6, 2020

Lesson 6 - Animal Variations and Response to Environment
Objective: SWBAT describe how animals change to adjust to their environment.
Question of the Day: Do animals change throughout the seasons?

Lesson At-A-Glance for Today

A. **Review the lesson titled "Lesson 6 – Animal Variations and Response to Environment"**
B. **Watch Watch 3** videos on Brainpop. (username:girlsprep password: brainpop)
1. Camouflage
2. Hibernation
3. Migration
C. **Complete the exit ticket on Illuminate CLICK HERE**

Part A: Lesson

All animals have different structures that have different jobs or functions to help with growth, survival, and reproduction.

Animals have different ways of movement. Birds use their wings, fish use their fins, and others use their legs. Animals need to move so that they can find a safe place for shelter, find food, and escape **predators** (enemies).

Lobsters and crabs protect themselves with their **claws**, turtles have **shells**, porcupines have **spines**, birds use their **feathers**, and others have **fur** or **scales** to help protect them from predators.

Some animals are able to change the color of the body covering to blend into their surroundings. This is called camouflage. It is used to protect the animal from enemies. A

lion's golden fur will blend into its desert habitat. Chameleons can change the color based on their surroundings. On a branch it will be brown to match the branch and on the grass and leaves it will turn green to hide from predators.

Part B: Brain Pop

Watch the brainpop video on camouflage. (login:girlsprep password:brainpop)

Some animals protect themselves in other ways by sending out special sounds or smells which is another type of **defense mechanism**. These smells and sounds can attract other animals so that they can mate or they can help them fight an enemy. Skunks are able to protect themselves by giving off a foul odor (smell) when in danger. Armadillos roll up into a ball, porcupines raise sharp spines, and opossums play dead to help protect themselves from predators.

Animal Responses to the Environment

Behavior is the way an organism responds to changes in their environment. Humans shiver when it is cold and by doing so we create more heat to keep our bodies warm. When our bodies get hot, we perspire (sweat), bringing water to our skin to cool down. Have you ever

noticed that your heart rate increases when we get nervous, scared, or upset? We begin to breathe faster and sweat. This is how our bodies prepare for whatever danger may be coming.

Seasonal Changes

Some animals' behaviors are influenced by environmental conditions. These behaviors may include building nests, hibernating, hunting, migrating, and communicating.

Many animals are able to change their body with the seasons. We wear warmer clothing when the weather is cold. Some animals grow thicker fur in the winter and shed it when it is warmer; helping to regulate their body temperature. Other animals change their amount of body fat with the seasons. Body fat is a form of stored energy that helps them get through long periods of time with little food. Some animals gather food in preparation for the long winter like squirrels collecting acorns.

Some animals live a very different life in the summer than they do in the winter. Some animals hibernate in the winter. Their bodies slow down and go into a dormant (inactive) state. Before hibernating, bears eat a large amount of food to increase their body fat. This will allow them to sleep for a long time with little food until the colder months pass.

Part B (continued): Brain Pop

Watch the brainpop video on hibernation. (login:girlsprep password:brainpop)

Some animals react to the cold in a different way. Many animals migrate, or move to a warmer climate in the cold months. Birds are known for flying south to a warmer climate in the winter to avoid the cold weather. Some animals migrate not only for temperature, but to find food.

Watch the brainpop video on migration. (login:girlsprep password:brainpop)

Part C: Exit Ticket - CLICK HERE (this is the same link that is on the cover page)

1. When ocean waters become too warm, some whales travel to colder water. This movement is an example of
    a. Nest building
    b. Hunting
    c. Migrating
    d. Hibernating

2. Many animals blend in with their environment and can not easily be seen by predators. This is an example of which adaptation?
    a. Communicating
    b. Hibernating
    c. Migrating
    d. Camouflaging

3. In the spring and early summer, bears often scratch their backs against trees to remove winter fur. This is an example of an animal
    a. Completing its life cycle
    b. Beginning hibernation
    c. Responding to its environment
    d. Preparing for migration

Wednesday, April 8, 2020

Lesson 8 - Animal Adaptations
Objective: SWBAT describe how animals adapt to their environment.
Question of the Day: Do animals change to survive?

Lesson At-A-Glance for Today

A. **Review the lesson titled "Lesson 7 - Animal Adaptations"**
B. **Complete the "Battle of the Beaks" Activity or Watch** "Natural Selection" video on Brainpop. (username:girlsprep password: brainpop)
C. **Complete the exit ticket on Illuminate CLICK HERE**

Individual organisms and species change over long periods of time depending on the environment. These changes are called adaptations. Adaptations are passed from one generation to the next so that the species can survive and thrive. The saying, "survival of the fittest", means that those who are best adapted will survive over those who are not.

One example of how organisms have adapted to their environment is fish. Fish live in the water and need to breathe, so they developed gills. Gills are slits in the sides of their body that allow the fish to get oxygen from the water while swimming. Camels live in the desert and are able to go for long periods of time with little water. Cactus plants can also go long periods of time with no water, which is why they survive in a dry climate.

A bird's beak functions like the lips and teeth of humans. The bird's beak helps the bird take in food. The shape, strength, and design of the beak varies depending on the food the bird eats.

Elephants have long trunks that help them to drink water and reach and grab food. They also have very large ear flaps that help them to hear. Since elephants are so large, they move very slowly. Having good hearing helps protect them from predators.

Activity:
If you have the following materials at home, you can try the following activity. If you only have some materials, use what you have. You can substitute the items for similar objects.
If you do not, Watch the brainpop video on natural selection. (login:girlsprep password:brainpop)

Battle of the Beaks Activity
Objective: Understand that animals that are better adapted to take advantage of available foods will fare better than those who are less adapted, so these genes are passed on to the next generation.

Materials:
Beak types: clothespin, fork, tweezers, binder clip
Food types: paper clips, macaroni, rubber bands, toothpicks
cup, timer

Procedure:
1. Select a beak type.
2. You will need a cup to represent the bird's stomach. The cup must remain upright at all times. You must hold the beak in one hand and the stomach in the other. You can only place food in your "stomach" with your "beak".
3. Create a mixture of food types on a table.
4. You will have 30 seconds to collect as much food as you can. Once the time is up, empty your cup and count the contents. Record it in the table.
5. Repeat the activity using different types of beaks.

	Paper clips	Macaroni	Rubber bands	Toothpicks
Clothespin				
Fork				
Tweezers				
Binder clip				

- What did you notice about your feeding abilities with each beak?
- What would happen to the bird population if there was a drought and all the rubberbands died off?

Part C: Exit Ticket - CLICK HERE (this is the same link that is on the cover page)

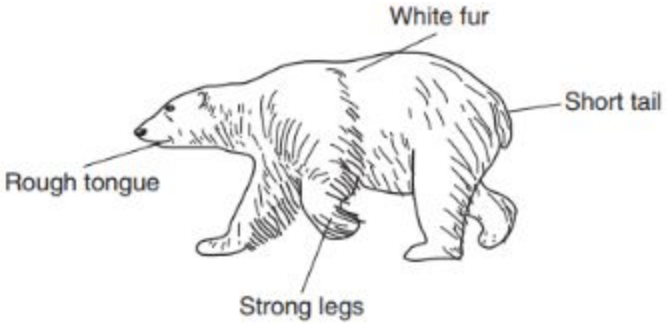
1. The main function of a fish's gills is to help the fish
   a. Reproduce
   b. See
   c. Breathe
   d. Move

2. The diagram below shows the beaks of three different birds. Birds use their beaks to obtain food.

(Not drawn to scale)

The differences in the birds' beaks are examples of
   a. Migrations
   b. Hibernations
   c. Physical adaptations
   d. Seasonal changes

3. The diagram below shows a polar bear that lives in a cold, snowy environment. Four of the polar bear's body structures have been labeled.



Which body structure provides camouflage for the polar bear in its environment?
   a. Rough tongue
   b. Strong legs
   c. Short tail
   d. White fur