

## HOW ANIMALS ADAPT TO HOT AND COLD TEMPERATURES

### ABOUT THE PASSAGE

Have you ever wondered how animals keep warm in the winter? Why don't you see lizards at noontime?

### REASON FOR READING

As you read the passage try to think of other ways animals ADAPT to changes in the weather. What do the words ADAPT, HIBERNATION and PROTECTIVE mean?

### READ THE PASSAGE

When the weather gets cold, we change our clothes. We put on woolen dresses and suits, and we add nice warm overcoats. But animals cannot put on extra clothing to keep them warm. How do you think they manage to *adapt* to changes in *temperature*?

Animals adapt to changes in the weather in many different ways. Warm-blooded animals, like bears, eat a lot during the summer. The *extra* food they eat forms a layer of fat on their bodies which keeps them warm when the winter comes. When they feel the air getting cooler in the fall, they *wisely* creep into dry caves and hollows to sleep the winter months away. They can sleep all winter without waking up to eat because the extra food they have eaten

during the summer keeps them alive. Their long winter's nap is called *HIBERNATION*. In addition, warm-blooded animals keep warm by growing longer and thicker coats of fur than they have in the summer. The extra fur forms a *PROTECTIVE* outer layer that keeps the cold out and the heat from their bodies in.

Cold-blooded animals have protective outer layers, too, but for a different purpose. Snakes, toads, lizards and crocodiles have thick *scaly* skin which keeps their bodies from drying out in the hot sun. Cold-blooded animals cannot stand heat much above 98.6 degrees. They hide in the shade, underground, or in the water during the day. They come out after *sundown* to search for food, and (if they aren't living in

the water) to drink water from a nearby river or pond.

In order to live, animals must be able to adapt to their

surroundings. Just think how cold you'd be in winter without a heavy coat to wear!

### THINKING IT OVER

(1) What are the two groups of animals the writer talks about? .....

.....

(2) What are the four ways bears adapt to cold weather? .....

.....

.....

### STUDYING THE PASSAGE

(1) Find the Main Idea: Choose one. ....

- (a) How animals keep warm.
- (b) How animals store food for winter.
- (c) Why animals hibernate.
- (d) How animals live in hot and cold weather.

(2) Find the Facts: Mark each of these true or false:

- (a) A bear is a warm-blooded animal. (a).....
- (b) A bear must hunt for food in cold weather. (b).....
- (c) Cold-blooded animals do not need protective coats. (c).....
- (d) Cold-blooded animals do not like hot sun. (d).....
- (e) Snakes and crocodiles are cold-blooded animals. (e).....
- (f) The snakes' scaly covers stop their bodies from drying out. (f).....

(3) Find the Order: Put the following in the order in which they appear in the passage:

- (a) Bears eat a lot in summer. ....
- (b) Snakes and lizards have scaly outer skins. ....
- (c) When they feel the air getting cooler they hide away and go to sleep. ....
- (d) Cold blooded animals cannot stand the heat. ....
- (e) They grow longer and thicker coats. ....

(4) Go Beyond the Facts: You would be *least* likely to see a lizard on a walk when: (Choose one) .....

- (a) It's hot.
- (b) It's cool.
- (c) You are walking in a shady wood.
- (d) You are by a stream at sundown.

(5) Words and Their Meanings: Put the letter of the correct definition in the blank by its word. The first word has *two* meanings.

- |                  |   |
|------------------|---|
| .....wisely      | (a) a thin, flaky, overlapping piece of skin is             |
| .....            | .....   |
| .....to adapt    | (b) the hotness or coldness of anything                     |
| .....temperature | (c) when the sun has set, or gone                           |
| .....extra       | (d) the act of spending the winter hiding away and sleeping |
| .....hibernation | (e) adjust to, change along with                            |
| .....protective  | (f) sensibly  |
| .....scaly       | (g) shielding from injury                                   |
| .....sundown     | (h) more than what is usual                                 |
|                  | (i) in a knowing fashion                                    |

## HOUSES FOR DIFFERENT CLIMATES

### ABOUT THE PASSAGE

Can you imagine wanting a house made of snow? Some people do. Who do you think these people are? Why would a flat-roofed house in Vermont cause a disaster?

### REASON FOR READING

To see why people in different climates and different parts of the world build very different types of houses.

### READ THE PASSAGE

If you were to travel around the world, or even across the United States, you would see many different kinds of houses. Why isn't one *type* of house best for everyone? After all, the main reasons for building houses are the same all over the world: to be comfortable and safe.

The desire to be comfortable is one *clue* to the difference in types of *structures*. In some very warm climates, people prefer houses made of straw, because straw allows a breeze to blow through to keep them cool. If you lived mainly on fish, a house on stilts would make it possible for you to live near the water and still keep dry. But you would want a house that was light and easy to carry with you if you lived in a *barren* desert. People who live in the desert have to move

often to look for water and food, so they stretch cloth over light wooden poles to make their homes. Some people in mild or warmer climates like flat roofs. They use them for sunning, or to catch a breeze on a warm day. In places where there is little fresh water, flat roofs catch the rain water and store it for people to use.

The desire to be safe also *affects* the way houses are built. The flat roofs that are so convenient in California and Florida would cause a *disaster* in Maine or Vermont, where there is much snow. The snow would pile up on the roof, and cave it in, snow and all. Here one needs a *sturdily* built home with a sloping roof for the snow to slide off.

Not only do climate and way of life affect the building of a

house, but also the materials available. In the mountains, people often build log homes, because there are many trees to use. Where the soil is clay, we find brick or mud houses. Where the Eskimos live, homes are made of blocks of snow.

The last great difference in our

types of homes results from the cost of land. Not many people could afford to build a *rambling* farm house in the city. Because so many people want to live in the same place, the land is very expensive. Thus apartments are built, and people share the cost of the land.

### THINKING IT OVER

- (1) Which people live in houses made of snow? .....
- (2) Why would a flat-roofed house in Vermont cause a disaster? .....
- .....

### STUDYING THE PASSAGE

- (1) Find the Main Idea: Choose one. ....
  - (a) In warm climates people need to use flat roofs.
  - (b) All people like to be comfortable.
  - (c) Where one lives decides the kind of house one lives in.
  - (d) Eskimos would be happier in wooden houses.
  
- (2) Find the Facts: Mark each of these true or false:
  - (a) The main reasons for building a house are to be comfortable and safe. (a).....
  - (b) A straw house would be built in a cool climate. (b).....
  - (c) An apartment house is usually built where land is expensive. (c).....
  - (d) A flat roof on a house in Vermont would be a poor idea. (d).....
  - (e) You would be most likely to find a log house on the desert. (e).....
  - (f) A house of cloth and wooden poles would be useful in a barren desert. (f).....

(3) Find the Order: Put the following in the order in which they appear in the passage:

- (a) A sloping roof is needed in Maine. ....
- (b) People in mild climates like flat roofs. ....
- (c) If you fish for a living, a house on stilts would be a good idea. ....
- (d) People who move often in desert areas use homes of cloth. ....
- (e) Brick and mud homes are found where the soil is clay. ....

(4) Go Beyond the Facts: If you lived on an island in the hot climate of the Pacific Ocean, you would be wise to build a house of:  
(Choose one) .....

- (a) Wood
- (b) Mud
- (c) Straw
- (d) Cloth

(5) Words and Their Meanings: Put the letter of the correct definition in the blank by its word. The first word has *two* meanings.

- |                |  |
|----------------|--|
| .....barren    | (a) something built (like a house)                               |
| .....          | (b) a misfortune   |
| .....type      | (c) a model or example   |
| .....clue      | (d) spread out   |
| .....structure | (e) to influence   |
| .....disaster  | (f) lacking plants and living things                             |
| .....sturdily  | (g) lacking interest or charm                                    |
| .....affect    | (h) strongly   |
| .....rambling  | (i) an indication which guides one in solving difficult problems |