Contents

Before You Read

NAME: _____

Warm-Blooded vs. Cold-Blooded Animals

1. In the squares below, draw pictures of animals that you think are WARM-BLOODED. Write your answers on the line in the square.

2. In the squares below, draw pictures of animals that you think are COLD-BLOODED. Write your answers on the line in the square.

3. Complete each sentence with a word from the list. Use a dictionary to help you.

cold-blooded **warm-blooded** **solar energy** **environment**

a) When a _____ animal is in a cold climate, its body temperature is cold.

b) The energy that the sun gives off is called _____.

c) The surroundings where an animal lives is called its _____.

d) _____ animals are able to stay at the same body temperature no matter where they live.

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After You Read

Warm-Blooded vs. Cold-Blooded Animals

What is the difference between cold-blooded animals and warm-blooded animals? The most obvious guess is that cold-blooded animals have cold blood and warm-blooded animals have warm blood. The answer is actually a little bit different.

Cold-blooded animals cannot control their own body temperature. Instead, their body temperature changes, depending on the temperature of their **environment**. **Warm-blooded** animals are able to stay at the same body temperature no matter where they live. Let's look at each of these kinds of animals in more detail.

STOP

Do you think you are a cold-blooded or a warm-blooded animal? Explain your answer.

_____

_____

Reptiles, amphibians, and fish are all examples of **cold-blooded animals**. They use **solar energy** (energy from the sun) to control their body temperature. So if the weather is hot, the animal is hot. If the weather is cold, the animal is cold. Have you ever seen a frog sun itself on a rock? It is not trying to get a suntan! The frog suns itself to absorb heat from the sun. What does a frog do when it is too warm out? It finds cool shelter to cool down its body temperature. Smart animal!

Humans, mammals, and birds are all examples of **warm-blooded animals**. Their body temperature stays the same no matter what. Even if the temperature of their environment changes, their body temperature stays the same. They are able to control how much heat their bodies produce. They are also able to control how much heat their bodies lose. They are also smart animals!

After You Read

NAME: _____

Warm-Blooded vs. Cold-Blooded Animals

1. Circle the answer that best completes each sentence.

a) Cold-blooded animals cannot control their own _____.

energy **body temperature**

b) A cold-blooded animal's body temperature depends on the temperature of their _____.

environment **blood**

c) Cold-blooded animals use _____ to control their body temperature.

oxygen **solar energy**

d) Humans and birds are examples of _____-blooded animals.

cold **warm**

e) Warm-blooded animals are able to control how much _____ they produce and lose.

heat **energy**

2. Circle the word True if the statement's true. Circle the word False if it's false.

a) A fish is a good example of a warm-blooded animal.

True **False**

b) The difference between cold-blooded and warm-blooded animals is the temperature of their blood.

True **False**

c) A frog might cool its body temperature down by burying itself under a rock.

True **False**

d) Warm-blooded animals are able to control how much heat their bodies produce.

True **False**

e) No matter what temperature the water is, a fish's body temperature always stays the same.

True **False**

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After You Read

Warm-Blooded vs. Cold-Blooded Animals

3. Classify the following animals into two groups: WARM-BLOODED ANIMALS and COLD-BLOODED ANIMALS. You might need to use research tools to find out more about each animal. Once you have divided them, explain what the difference is between the two groups.

frog human snail eagle dog spider

a) Cold-Blooded Animals **Warm-Blooded Animals**

_____ _____

_____ _____

_____

b) The difference between cold-blooded and warm-blooded animals is

_____

Extension and Application

4. Design a Poster! We read about how the cold-blooded frog controls its body temperature. It might lie on a sunny rock to warm up its body. Or, it might bury under a rock to cool off its body. Use your imagination to think of what the following cold-blooded animals might do to control their body temperature. **Pick one** of the animals from the list below. Draw a picture showing these two things:

- how the animal warms up its body temperature
- how the animal cools off its body temperature

snake **lizard** **crocodile** **eel** **salamander**

Don't forget to label your picture. Use your imagination!

5. A conversation between a cold-blooded animal and a warm-blooded animal! Pretend you hear a conversation between a **cold-blooded animal** and a **warm-blooded animal**. Using a dialogue structure (Animal #1 says…, Animal #2 says….) write down the conversation you hear. Your conversation should include the following information:

- the names of the animals (pick two)
- what makes them either cold-blooded or warm-blooded
- how they control their body temperature
- the difference between the two animals

Hands-On Activity #3

The Lake Habitat Thermometer

For this activity, you will need:
- A thermometer
- The picture of the "Lake Habitat"
- Information resources (like the internet or an encyclopedia)

Look at the picture of the "Lake Habitat".
Then read the following description of it:

The current temperature of the air is 47 degrees F.
The highest temperature of the water is 37 degrees F.
The temperature of the soil is 49 degrees F.
The date is January 9. The time is late afternoon.
The sky is very cloudy.

While you are reading the above description, look at your **thermometer**.
Can you find the above temperatures on your thermometer?
Work with a partner if you are having trouble.

In your notebook, copy down the following questions.
Answer them using what you have learned about warm-blooded and cold-blooded animals, and your information resources.

Questions:

1. Approximately what is the body temperature of the fish?
2. Approximately what is the body temperature of the otter?
3. Approximately what is the body temperature of the bird?
4. Is there anything the fish can do to increase its body temperature to much more than about 37 degrees F?
5. How well is the otter insulated in the cold winter?
6. How well is the fish insulated?
7. If an animal is poorly insulated, what is the disadvantage in cold weather?

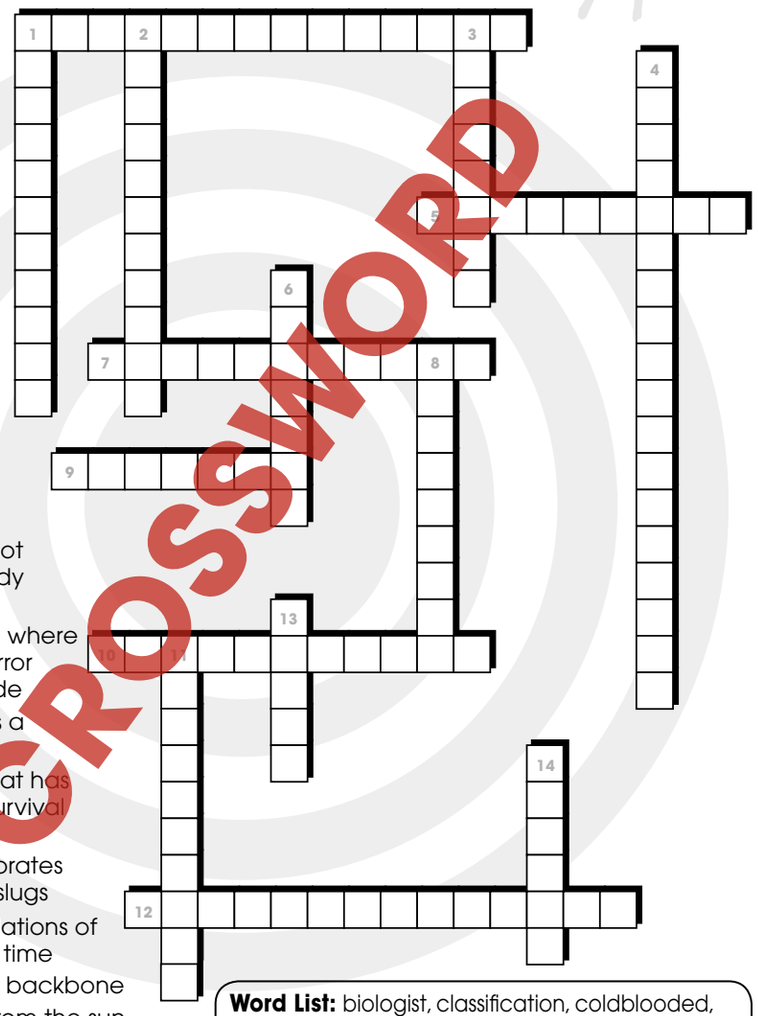
After You Read

NAME: _____

Crossword Puzzle!

Across
- **1** when things are divided into groups based on similarities
- **5** a person who studies living things
- **7** describes an animal that is able to stay at the same body temperature
- **9** a single organism
- **10** the surroundings where an animal lives
- **12** a scientist that studies fossils

Down
- **1** an animal that cannot control their own body temperature
- **2** describes something where the left side is the mirror image of the right side
- **3** a living thing such as a plant or animal
- **4** a physical feature that has been changed for survival purposes
- **6** the group of invertebrates including snails and slugs
- **8** the change of populations of living organisms over time
- **11** an animal that has a backbone
- **13** energy that comes from the sun
- **14** the remains of an animal or plant that are preserved



Word List: biologist, classification, coldblooded, environment, evolution, fossil, mollusk, organism, paleontologist, physical adaptation, solar, species, symmetrical, vertebrate, warmblooded

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After You Read

Comprehension Quiz

Part C

Answer the questions in complete sentences.

1. What is the difference between a **warm-blooded animal** and a **cold-blooded animal**? (2)

2. What does it mean to **classify** something? Give an example to support your answer. (2)

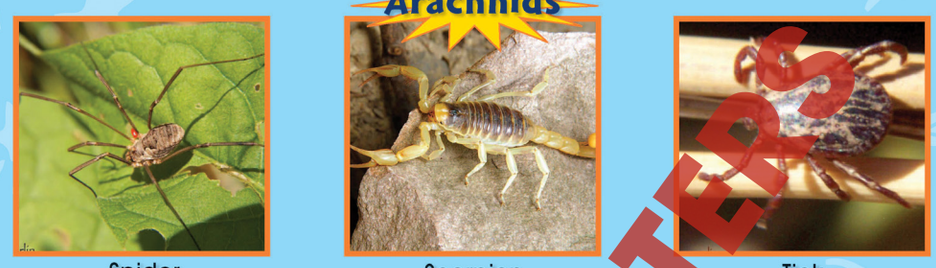
3. Why are **vertebrates** called "the most advanced organism on Earth"? (2)

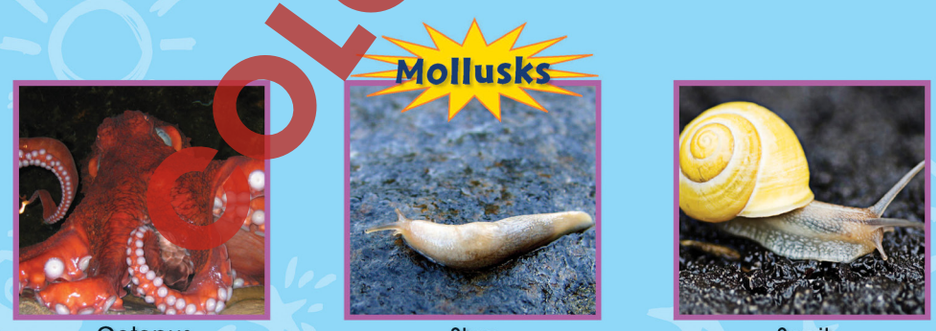
4. What is a **physical adaptation**? Use information you have learned about the **koala** to support your answer. (2)

5. What is **evolution**? How do scientists gather information about **evolution**? (2)

SUBTOTAL: /10

Invertebrates





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a) Cold-Blooded Animals **Warm-Blooded Animals**

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_____ _____

_____ _____

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- how they control their body temperature
- the difference between the two animals

EASY MARKING ANSWER KEY

EZ

3.

a) cold-blooded: frog, snail, spider
warm-blooded: human, eagle, dog

b) Accept any reasonable answer

4.

Answers will vary

5.

Answers will vary

1. 37° F (same temperature as its surroundings)
2. 100° F (temperature of most mammals when active)
3. 107° F (temperature of most birds when active)
4. No – can only swim to the surface where there is more sunlight on a sunny day
5. Fairly well – it has fur and layers of fat to insulate it
6. Not well – it has scales rather than fur and very little body fat
7. Body temperature drops as the temperature of its surroundings (water or air) drops