



**TEACHER GUIDE**

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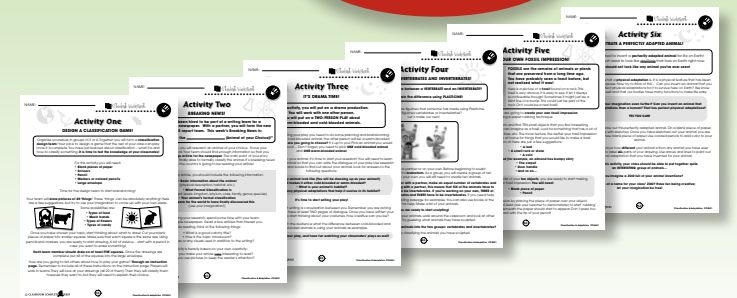
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- Go to our website: [www.classroomcompletepress.com/bonus](http://www.classroomcompletepress.com/bonus)
- Enter item CC4501 or Classification & Adaptation
- Enter pass code CC4501D for Activity Pages..

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## Formal Classification

1. Draw a line from the word on the left to its matching definition. Which word is left over? Use the reading passage or a dictionary to help you write out its definition.

- |   |                |  |   |
|---|----------------|--|---|
| 1 | biologist      | when you group or categorize something based on a characteristic       | A |
| 2 | classification | the classification group that divides each kingdom                     | B |
| 3 | kingdom        | a person who studies living things                                     | C |
| 4 | phylum         | the largest classification group that represents all animals or plants | D |
| 5 | class          | the classification group that divides each phylum                      | E |
| 6 | family         | the classification group that divides each class                       | F |
| 7 | species        |  | G |

2. In the space below, draw how you would classify the following foods: orange, carrot, broccoli, apple, lemon, lettuce, potato, zucchini. Use pictures to show your classification!

## Formal Classification

**D**o you remember what the word **classification** means? Remember, it can be applied to many things. In science though, it describes how **biologists** group and categorize living organisms. We looked at an elephant and classified it by what it looks like. Biologists do this too but they classify living things in more detail.



**How are phone numbers in a phone book classified? When you are looking for someone's phone number, do you have to look through everybody's name to find the number?**



When you go into a music store to buy the #1 single on the music charts, do you have to look through every CD in the store to find it? That would take hours! What do you do first? You find the category. Is it a pop, rock, rap or punk song? Then you look for the name of the artist, and then the name of the song. Scientists have to do the same thing if they are looking for one specific animal. It would take hours to look through all the animals that live on Earth. There are thousands of different kinds of animals! Scientists **classify** animals. They look for differences and similarities to divide them into smaller groups. Do you agree that this would make it easier to find and study animals?

Let's look at the categories that scientists use to classify animals. Is it enough to just group something in the "animal" category? No, scientists divide animals into the following categories:

- Kingdom:** the animal kingdom is split into several phylum groups
- Phylum:** each phylum is split into smaller groups called classes
- Class:** each class is split into families
- Family:** each family is split into more than one genus
- Genus:** each genus is split into species
- Species:** finally at the bottom, a species is a single organism!



## Formal Classification

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

- a) Classification describes how biologists group and categorize living organisms.  
True                  False
- b) Classifying animals makes it harder for biologists to find an animal they are looking for.  
True                  False
- c) When biologists classify, they only look for similarities between animals.  
True                  False
- d) A species is at the bottom of the classification groups. It is a single organism!  
True                  False
- e) There are 2 categories that biologists divide animals into: animals with four legs, and animals with two legs.  
True                  False

2. **Circle** the answer that best completes each sentence.

- a) The animal \_\_\_\_\_ is split into several phylum groups.  
population                  kingdom
- b) Classification describes how biologists group and \_\_\_\_\_ living organisms.  
categorize                  study
- c) When biologists classify animals, they look for \_\_\_\_\_ and similarities to divide them into smaller groups.  
categories                  differences

## Formal Classification

Answer each question with a complete sentence.

3. How is classifying music in a store similar to classifying animals?  
\_\_\_\_\_
4. How do biologists make it easier to find and study animals?  
\_\_\_\_\_
5. What categories do biologists use to classify animals? Use the proper terms found in the reading passage.  
\_\_\_\_\_

### Extension and Application

6. **Your new grocery store needs to be reorganized!**

You are the proud new owner of a fine food grocery store! Your store is very successful but there is one problem: the previous owner did not organize the food into any categories! It's a mess! Food is piled on top of other food. There is no order! People cannot find what they are looking for.

It is your job as the new owner to reorganize and **classify** your food so that it is easier for customers to find what they are looking for. Imagine what kinds of food you would sell in your store. Come up with at least 10 different items.

On a piece of paper, either draw a picture or write a story about how you would reorganize your store. Customers will appreciate your work!

7. **An animal gets classified!**

You are a research biologist and you have a job to do: to formally classify an animal. Choose one animal and research its formal classification. You will need to use various research tools for this activity (internet or encyclopedia). Once you have chosen your animal, write down information you find on the following classification categories:

- kingdom
- phylum
- class
- family
- genus
- species



# How Important Are Thumbs?

The goal of this activity is to provide you with a chance to understand how important the thumb is for animals. You will discover:

- which activities take longer without the use of a thumb
- what sort of human activities would not be possible to do without your thumbs

**Materials: (per group)**

masking tape, scissors, paper clips, zip-lock bag, plastic fork and knife, pencil, paper, balloons, book, chalk

**Instructions:**

1. Tape your thumbs to the sides of your hands.
2. Then, try to complete the tasks that are listed below. Be careful not to use your thumbs! After completing each item, write out the answers to the following questions:
  - A. Is the task more difficult with or without a thumb?
  - B. How did you have to change your usual technique in order to complete this task?
  - C. Do you think organisms without thumbs would carry out this task on a regular basis? Why or why not?

**Tasks:**

- Pick up a pen or pencil from the table. Use it to write your name on paper.
- Open a book. Turn a few pages, one page at a time.
- Pick up a piece of chalk. Write your name on the board.
- Tear off a small piece of tape.
- Sharpen a pencil.
- Cut a circle out of a piece of paper using scissors.
- Pick up one paper clip. Clip a pile of papers together.
- Tie your shoelaces.
- Blow up a balloon and tie it.
- Close a zip-lock bag.



# Word Search

Find all of the words in the Word Search. Words may be horizontal, vertical, or diagonal. A few may even be backwards! Look carefully!

adaptation	environment	kingdom	phylum
arachnid	evolution	marsupial	sense
biologist	family	mollusk	species
class	fossil	nerve	symmetrical
classification	habitat	opposable	tissue
category	insect	organism	vertebrate
coldblooded	invertebrate	paleontologist	warmblooded

p	c	v	r	f	g	s	e	i	c	e	p	s	w	q	k	o	b
h	w	a	r	m	b	l	o	o	d	e	a	y	s	a	c	p	i
y	e	v	o	l	u	t	i	o	n	n	y	m	d	z	a	p	o
l	w	f	s	w	e	t	l	l	n	v	h	m	n	r	t	o	l
u	d	r	a	u	r	v	x	a	h	v	n	e	e	t	e	s	o
m	v	a	z	m	w	y	u	j	a	r	t	t	r	y	g	a	g
s	e	c	e	g	i	f	h	k	r	o	g	r	v	h	o	b	i
r	r	v	d	f	g	l	m	v	r	n	b	i	e	d	r	l	s
t	t	b	n	m	j	g	y	t	e	m	r	c	w	f	y	e	t
y	e	d	i	n	h	c	a	r	a	e	f	a	d	h	h	f	d
u	b	m	q	s	v	b	m	u	y	n	v	l	x	b	y	r	w
l	r	m	a	z	x	e	v	b	g	t	m	o	d	g	n	i	k
c	a	a	o	i	n	v	e	r	t	e	b	r	a	t	e	d	
l	t	s	l	s	a	s	d	f	g	f	s	h	f	s	n	e	
a	e	d	k	e	l	u	w	e	r	t	o	m	a	y	r	f	d
s	h	f	y	d	f	u	p	r	t	y	s	s	b	k	t	m	o
s	e	n	s	e	g	j	s	i	o	u	s	i	i	y	t	e	o
d	f	g	h	j	h	j	k	k	a	l	i	n	t	w	i	y	l
a	d	a	p	t	a	t	i	o	n	l	l	a	a	h	s	q	b
t	c	e	s	n	i	a	s	d	f	g	m	g	t	f	s	e	d
q	w	e	r	t	y	u	l	o	p	l	n	r	f	d	u	w	l
c	l	a	s	s	i	f	i	c	a	t	i	o	n	z	e	b	o
p	a	l	e	o	n	t	o	l	o	g	i	s	t	w	y	p	c



# Comprehension Quiz

**Part C**

Answer the questions in complete sentences.

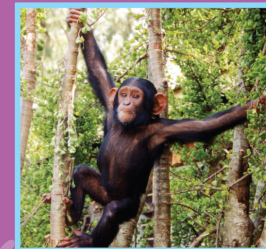
1. What is the difference between a **warm-blooded animal** and a **cold-blooded animal**? 2  
\_\_\_\_\_
2. What does it mean to **classify** something? Give an example to support your answer. 2  
\_\_\_\_\_
3. Why are **vertebrates** called "the most advanced organism on Earth"? 2  
\_\_\_\_\_
4. What 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

# Vertebrates



Bird



Monkey



Dolphin



Shark



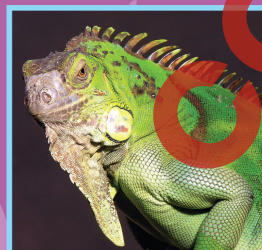
Toad



Kangaroo



Squirrel



Lizard



Panda



Seal

# Vertebrates

NAME: \_\_\_\_\_

After You Read 



## Formal Classification

Answer each question with a complete sentence.

- How is classifying music in a store similar to classifying animals?  
\_\_\_\_\_
- How do biologists make it easier to find and study animals?  
\_\_\_\_\_
- What categories do biologists use to classify animals? Use the proper terms found in the reading passage.  
\_\_\_\_\_

### Extension and Application

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#### 7. An animal gets classified!

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- kingdom
- phylum
- class
- family
- genus
- species

**3.**  
Need to divide music into categories

**4.**  
Classify them into groups

**5.**  
Kingdom, phylum, class, family, genus, species

**6.**  
Answers will vary

**7.**  
Answers will vary

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



# EASY MARKING ANSWER KEY



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