FUN & FASCINATING FACTS

- An easy way to learn simple arithmetic is to set out pebbles in a row. By adding more pebbles and counting the total, or by taking some away and counting the ones that remain, one can see the results of addition and subtraction. By using rows of pebbles, one can also learn multiplication. Pebbles arranged in three rows of four can be counted one at a time to see that 3 times 4 equals 12. By separating the pebbles into equalsized groups, one can also learn division. For example, dividing the pebbles into two equal groups and counting the pebbles in one of them shows that 12 divided by 2 equals six. The Romans long ago thought of this method of doing math. In fact, our word calculate comes from the Latin word calculus, which means—a pebble!
- Tens of thousands of years ago, a giant elephant lived in Europe and North America. It was called a mammoth. It was bigger than today's elephants; the largest ones were almost fourteen feet from the ground to the shoulder. It had huge tusks that curved downward and a thick, hairy coat. Mammoths died out long ago, but the bodies of some of them were frozen solid in the northern regions of Canada and Russia. They are sometimes found when the ice around them melts. Because of this creature's great size, its name became the adjective mammoth, meaning "very large; huge."

Word List

Study the definitions of the words. Then do the exercises that follow.

approach ə proch'

v. To go closer to.

The vet approached the wounded deer carefully.

n. 1. A coming closer.

My grandparents dread the approach of winter.

2. A road or way that leads to a place.

The approach to the beach was blocked by a fallen tree.

burrow bur ō

v. 1. To dig a hole or tunnel into or under something.

Turtles **burrow** into soft sand to lay their eggs.

2. To dig deeply into; to search.

The clerk **burrowed** through the pile of papers on his desk.

n. A hole or tunnel dug by an animal as a home or for protection.

A mole spends most of its time in its burrow.

cease

v. To stop; to come or bring to an end.

sēs After several hours of thunder and lightning, the storm finally **ceased.**

destructive

di struk' tiv

adj. Causing harm or damage.

Cutworms are very **destructive** garden insects.

destruction *n*. Harm or damage.

When Hurricane Katrina hit the Louisiana coast, it caused great destruction.

drowsy

adj. Tired or sleepy.

drou'zē Lying in the sun always makes my cat, lnky, drowsy.

famished

adj. Very hungry.

fa' misht Sometimes I work through my lunch hour, so by suppertime I am famished!

forecast fôr' kast

v. To figure out and say what will happen before it takes place.

Our fishing guide **forecast** a good catch.

n. A telling of what will happen.

As soon as Carlos gets up, he turns on the weather forecast.

hibernate

v. To spend the winter in a resting state.

hi bər nāt Groundhogs hibernate because they can't find enough food in the winter.

migrate mī' grāt

v. To move from one country or region to another.

Hundreds of thousands of people have **migrated** to the United States in search of freedom.

migration *n*. The act of migrating.

My friend Sandhya is studying Indian migration to the United States.

migratory (mī´ grətôr ē) *adj*. Moving from one place or country to another, usually regularly.

Canada geese are migratory birds.

nestle ne'səl

v. 1. To settle down comfortably, as if in a nest.

"The children were **nestled** all snug in their beds" is a famous line from 'Twas the Night before Christmas.

2. To lie in a sheltered, partly hidden place. The little Swiss town **nestled** at the foot of the Alps.

observe əb zurv´

v. 1. To see; to notice.

I looked up at the sky and observed a hawk circling slowly, far above us.

2. To comment; to remark.
Sleepily, I **observed** that it was time we left.

3. To mark an event or day.

We observed Martin Luther King Day by closing the store.

4. To obey.

I try to **observe** the speed limit when I drive.

prepare pri par

v. To make or get ready.

The scouts **prepared** for their camping trip by getting lots of freeze-dried food.

preparation (pre pə rā' shən) *n*. Something done to get ready. Antonio and Ruth did most of the **preparation** for the cookout the night before.

reduce ri doos'

v. To make or become smaller or less.

This winter, Vermont reduced the amount of salt it put on its roads.

reduction (ri duk' shan) n. The act of reducing or the amount by which something is reduced.

The store sold out of swimsuits after its huge price reduction.

severe sə vir

adj. 1. Very strict or harsh.

That's a very **severe** punishment for turning a paper in late.

2. Hard to bear or deal with.

A **severe** frost caused a lot of damage to central Florida's orange crop.

venture ven' chər

v. To dare to do, to go, or to say.

Maria ventured onto the dance floor even though she didn't know how to dance.

n. Something that involves the risk of a loss. Grandpa's most successful venture was a carpet cleaning service.

3A **Finding Meanings**

Choose two phrases to form a sentence that correctly uses a word from Word List 3. Write each sentence in the space provided.

	 (a) does a lot of damage. (b) A migratory animal is one tha 	(c) can be easily tamed. t (d) A destructive animal is one that
	2. (a) a disappearance. (b) A venture is	(c) An approach is (d) a coming closer.
approach burrow cease	3. (a) A famished creature (b) A migratory creature	(c) moves with the changing seasons.(d) goes to sleep for the winter.
destructive		
drowsy famished forecast	4. (a) To burrow is to (b) dig a hole or tunnel.	(c) refuse to obey. (d) To nestle is to
hibernate migrate		
nestle observe prepare	5. (a) to take no part in it. (b) To forecast an event is	(c) to say it will happen.(d) To observe an event is
reduce		Mark Indian and American
severe		

reduce severe venture

6.	(a) To reduce is to(b) settle down comfortably.	(c) To nestle is to(d) fall into a deep sleep.
7.	(a) Preparation is(b) what you do to get ready.	(c) Hibernation is(d) what is asked for.
8.	(a) something that involves a risk. (b) the addition of something.	(c) A reduction is (d) A venture is
9.	(a) very thirsty. (b) very hungry.	(c) To be famished is to be (d) To be drowsy is to be
0.	(a) To observe something is to (b) pay no attention to it.	(c) To cease something is to (d) notice it.

Just the Right Word

Improve each of the following sentences by crossing out the bold phrase and replacing it with a word (or a form of the word) from Word List 3.

- 1. Hana was starting to feel **very sleepy** when a noise made her jump.
- 2. The rain did not **come to an end** until early the next morning.
- 3. Some animals **go into a long, deep sleep** because there is so little for them to eat during the winter months.
- 4. The cottage lay partly hidden in a hollow near a grove of poplar trees.
- 5. All the **roads that lead** to the airport are closed because of the snowstorm.
- 6. The **long journey** of Canada geese from northern Canada to South America occurs each fall.
- 7. Even though Granny has **very bad** arthritis, she takes a walk every day.
- 8. The **cutting down in size** of this week's newspaper to just four pages was due to the paper shortage.
- 9. Ron **dug deeply** through the papers on his desk, trying to find the letter from his father.
- 10. As Maria Tipo played the piano, I **closely watched** the way she used the pedal.

approach
burrow
cease
destructive
drowsy
famished
forecast
hibernate
migrate
nestle
observe
prepare
reduce
severe

venture

3C Applying Meanings

Circle the letter or letters of each correct answer. A question may have more than one correct answer.

/hich of the following can peop	le reduce ?
a) their weight	(c) their age
o) their shoe size	(d) their spending
hich of the following would be	e a severe punishment?
a) a slap on the wrist	(c) no television for a day
o) going to jail	(d) being told to be quiet
/hich of the following can a per	son forecast?
a) the final score of a game	(c) a past event
b) the weather	(d) costs of doing business
/hich of the following can cause	e destruction?
a) forest fires	(c) bombs
o) floods	(d) hurricanes
/hich of the following could cea	ase?
	(c) the weather
o) noises	(d) a storm
hich of the following can migr	ate?
) animals	(c) plants
) birds	(d) humans
hich of the following could be	observed?
	(c) a rule
a birthday	(d) a full moon
hich of the following can be pr	epared?
) a lunch for four	(c) a book report
W 18 18	(d) a full moon
	their weight their shoe size Thich of the following would be the a slap on the wrist the going to jail Thich of the following can a per the final score of a game the weather Thich of the following can cause thich of the following could cea thich of the following could cea thich of the following can migr thich of the following can migr thich of the following could be thich of the following can be pr thich of the following can be pr

3D

Word Study

Many English words come from Latin. We say they have Latin roots. Our word *patriot*, for example, is formed from the Latin word *pater*, meaning "father."

In each space, write the Latin word that the English word comes from. Then write its meaning. Choose from the ten Latin words shown.

propius (near)
calculus (pebble)
fames (hunger)
cessare (stop)

propius (near) plere (complete)
calculus (pebble) severus (serious; strict)

severus (serious; strict)
servare (watch)

bene (well)

hibernus (winter) *jacere* (throw)

. . . .

English Word

Latin Word

1. to draw near; to get closer

approach

Meaning _____

Definition

2. to spend the winter sleeping hibernate

Meaning _____

3. very hungry; starving

famished

Meaning _____

4. to bring to an end; to finish

complete

Meaning _____

5. to come to an end; to stop

cease

Meaning _

6. to look at closely

observe

Meaning _

7. strict or harsh

severe

Meaning _____

8. to throw onto a screen

project

Meaning_

approach
burrow
cease
destructive
drowsy
famished
forecast
hibernate
migrate
nestle
observe
prepare
reduce
severe

venture

9. to be useful to; to help	benefit	
Meaning		
10. to figure out using math	calculate	* to
Meaning		



Read the passage. Then answer the questions that follow it.

A Long Winter Nap



Summer is a good time of year for most animals. It's easy for them to keep warm, and food is plentiful. Winter is harder for them. Lakes and ponds are frozen, and snow may cover the ground. All this makes food much harder to find. Many birds and some animals escape northern winters completely. They **migrate** south in the fall and return in the spring.

The groundhog, or woodchuck, deals with winter differently. It hibernates. As soon as it feels the weather turning cold, it starts to dig. It digs a burrow at least five feet underground. There it makes a comfortable nest with leaves and grass. The groundhog spends the cold winter months nestled in its underground bed. It does not usually wake up until spring. It is far enough below ground that there is no danger of its freezing to death. It stays safe even during the most severe winter.

The groundhog does not eat at all during the winter. Instead, it eats as much and as often as it can during the summer. People with gardens know how **destructive** a groundhog can be to their plants. As winter **approaches**, the groundhog becomes so fat it can hardly move. It **prepares** its nest and closes off the openings of the tunnels that lead down to it. When it starts to feel **drowsy**, it makes itself comfortable and falls into a long, deep sleep. This sleep can last up to eight months.

If you **observed** the groundhog in this state, you might think it had died. Its breathing almost **ceases**; its heart slows to about four beats a minute. A thermometer would show that its body temperature has fallen to just above freezing. When the groundhog wakes up in the spring, it has been without food for many months. Its weight has been **reduced** to only half of what it

was in the fall. Almost all its body fat has been used up to keep it alive during its long sleep. By February or March, the **famished** animal is ready to leave its hole and go looking for its first meal.

Years ago, people who lived in the country eagerly awaited the sight of the first groundhog putting its head above ground; it was a sign that winter was over. This gave rise to a number of stories. One of them was told by German farmers who had settled in Punxsutawney, Pennsylvania. The story was about a groundhog they called Punxsutawney Phil. This remarkable animal could **forecast** the weather.

According to the story, Phil **ventured** from his nest every February 2. He poked his head above ground and looked around. If he saw his shadow, it meant that there would be another month and a half of winter. In that case, he went back to sleep for another six weeks. If the weather was cloudy, and he didn't see his shadow, it meant spring would be early. This story spread around the country. Eventually, February 2 became known as Groundhog Day.

- Answer each of the following questions in the form of a sentence. If a question does not contain a vocabulary word from the lesson's word list, use one in your answer. Use each word only once.
- 1. Why do you almost never see groundhogs in winter?
- 2. What **preparations** does a groundhog make for winter?
- 3. How does the groundhog's appearance change as winter approaches?
- 4. How does a groundhog feel just before it begins its long sleep?

approach
burrow
cease
destructive
drowsy
famished
forecast
hibernate
migrate
nestle
observe
prepare
reduce
severe

venture

-			
5. Why do gardene	ers think groundhog	gs are destructive?	
	ers tilling grounding		

FUN & FASCINATING FACTS

- French, Spanish, and Italian are Latin languages. This means that many of their words come directly from the Latin that people throughout the Roman Empire spoke two thousand years ago. For example, you learned the Latin word hibernum, meaning winter. The French word for winter, hiver, also comes from Latin.
- When modern science began several hundred years ago, there was a need for scientific terms, and these were usually formed from Latin, the language of scholars. The word hibernate was formed in this way. It means "to go into a sleeplike state during the winter," and comes from the Latin word for winter.