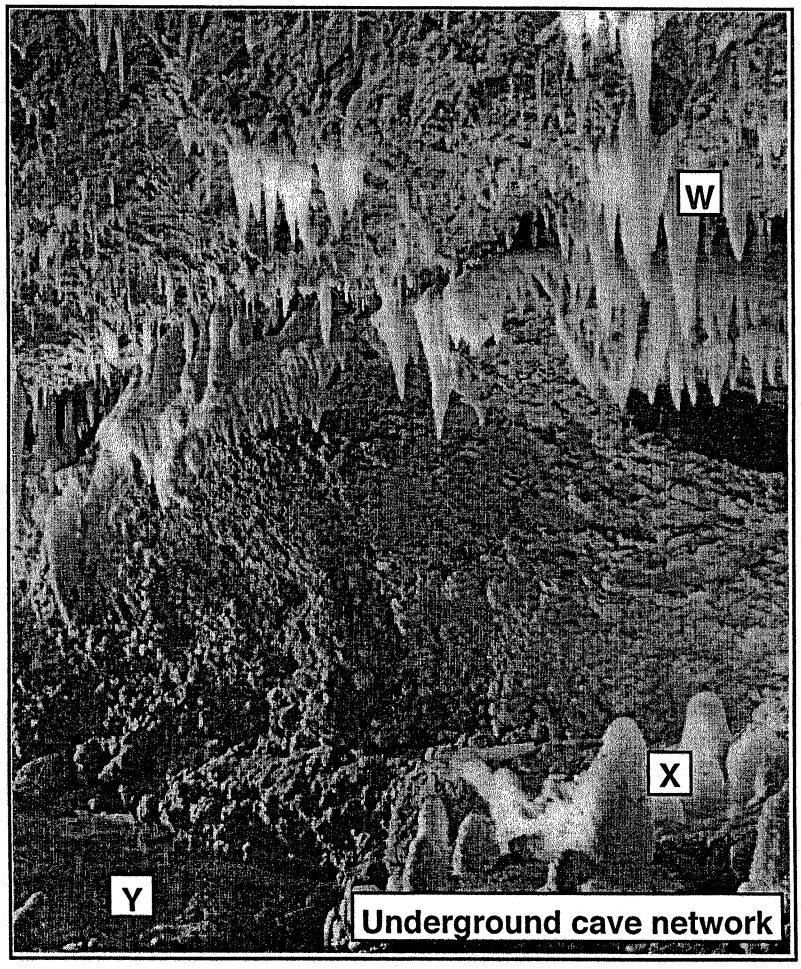
Unit 2: Gradational Processes
Topic: Karst Topography Name _____



Use the photograph above to answer the questions below.

1. In Karst landscapes very little water is seen on the surface. Surface water flows into the underground cave system through a series of openings called _____.

2. The cave network above has been created by water dissolving 100% of the rock and transporting it away. This method of transport is referred to as _____.

3. Underground cave networks can sometimes cover many square kilometres. In these areas the rock type is mainly _____.

4. As water drips from the ceiling of the cavern, deposits are left behind to form a feature that resembles an icicle in winter(**see W in photograph**). This depositional feature, known as a _____ , can take tens of thousands of years to form. Directly below it on the cavern floor a similar feature starts to grow up towards the ceiling (**see X in photograph**). This is called a _____. Eventually a time will come when the two meet and a continuous column from floor to ceiling known as a _____ will be formed.

5. Small ponds and streams with crystal clear water are a common sight in many cave systems. As water flows along the stream bed, deposits are placed down by the passing water. This type of depositional feature is referred to as _____.

6. Over time as the rock continues to dissolve, holes on the surface through which the water enters the cave system become larger and larger and may join together to create a larger depression known as a _____.

7. Eventually the entire cavern may collapse creating a massive depression called a _____.

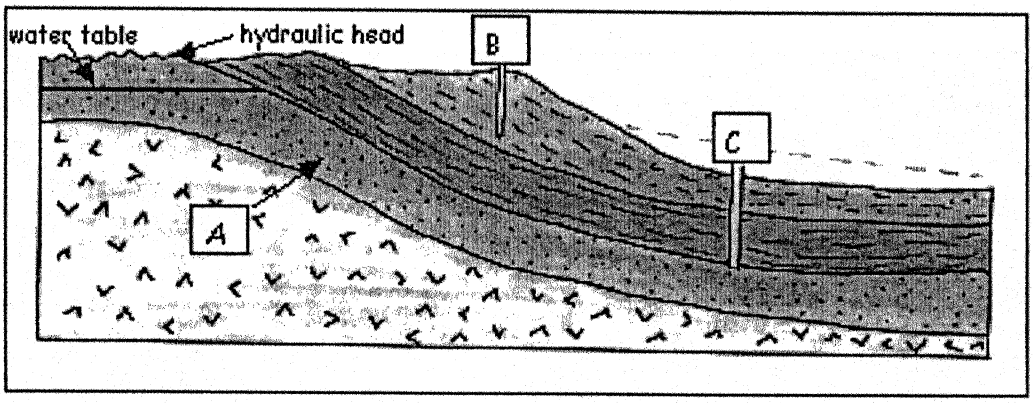
8. Areas of Karst landscapes have become a major problem in many locations in North America and Europe. In the past, homes were constructed without any knowledge of the underlying rock type. Today, huge holes are appearing in some areas where thousands of homes are located. The underlying rock has dissolved to the point that it is unable to support the layers of rock above it, resulting in sudden collapses. Once cave systems begin to collapse, it can take hundreds of years for the area to stabilize.
Can you think of one economic benefit derived from these dangerous, mysterious cave systems?
_____

Unit 2: Gradational Processes Quiz
Topic: Groundwater (A) **Name** _____

1. Explain the difference between zone of aeration and zone of saturation.

_____

_____



Use the above diagram to answer questions 2-5

2. Letter A points at a rock layer which readily absorbs water. Give the proper name for this permeable rock. _____

3. In well B the water table fluctuates throughout the year. What type of well is this?

_____

4. In well C the water is under pressure and may even flow to the surface under its own power. What type of well is this? _____

5. Limestone caves have many unusual features created by deposits of dissolved limestone.
A growing mound of deposit on the cave floor is known as a _____.
A growing mound of deposit hanging from the cave ceiling is known as a _____.

6. In many cities along the U.S. Gulf Coast, such as New Orleans, the ground is subsiding at an alarming rate. What is causing the ground to sink?

_____

_____

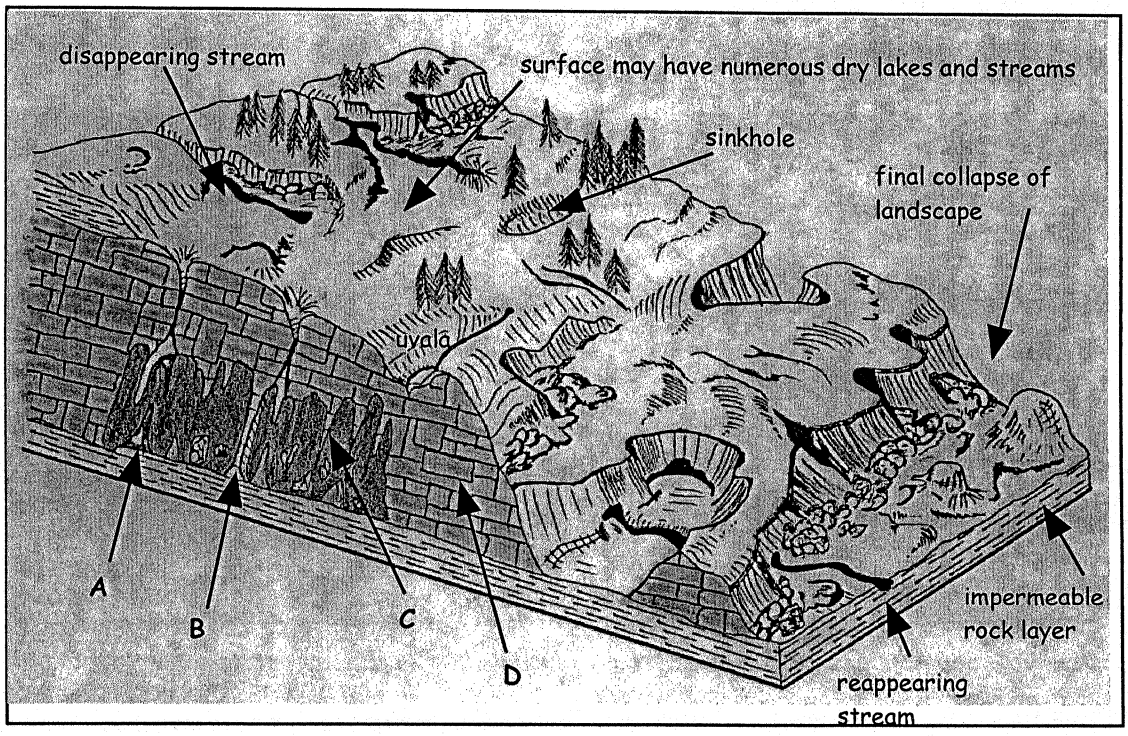
Unit 2: Gradational Processes Quiz
Topic: Groundwater (B) Name _____

1. The top of the zone of saturation is referred to as the _____.

2. Define aquifer.

_____

_____



Use the above diagram to answer questions 3-6

3. A mound of mineral deposits at **A** growing up from the cave floor is called a _____.

4. Feature B forms when deposits from below meet deposits from above forming a continuous column from floor to ceiling called a _____

5. An icicle-shaped deposit **C** hanging from the cave ceiling is called a _____.

6. What type of rock is **D**? _____.

7. How is an ordinary well different from an artesian well?

_____

_____

Unit 2: Gradational Processes
Topic: Groundwater Terminology Name _____

Pick the correct term from the words in the box to fill in the blanks below.

artesian well	flowstone	karst	aquifer
stalactite	limestone	water table	polje
porosity	stalagmite	uvala	hums
subsidence	permeability	ordinary well	
travertine terrace		hydraulic head	

1. A large depression resulting from the collapse of several sinkholes is known as a _____
2. A rock that dissolves 100% in water. _____
3. The top of the zone of saturation is called the _____.
4. Is often the result when too much water is drawn from the ground. _____
5. A rock layer that can store a substantial amount of water is called an _____
6. A depositional feature hanging from the ceiling of limestone caves. _____
7. This depositional feature can often be seen around hot springs and geysers. _____
8. Layered deposits found along cavern stream beds are referred to as _____
9. From this well, water may flow to the surface under its own pressure. _____
10. _____ refers to the portion of open spaces in soil material.
11. The collapse of an entire cavern creates a gorge-like feature called a _____.
12. An area with substantial limestone rock is referred to as a _____ landscape.
13. This term refers to hills of rock fragments following the collapse of all caves. _____
14. Water level will fluctuate up and down in this type of well. _____
15. _____ refers to how fast water can pass through rock layers.
16. Growing mound of limestone deposit on a cave floor is known as a _____.
17. The higher the_____ the greater the hydrostatic pressure in the aquifer.