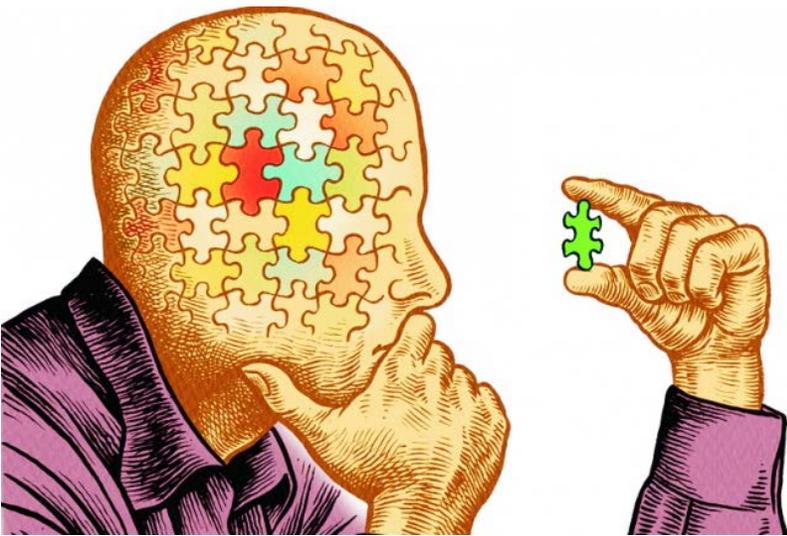


SESSION #5 – U-TURN Jan Term

Selecting Main Ideas & Test Strategies

Sponsored by *Academic Skills Center*

Presented by *Nikki Christensen, Assistant Director*

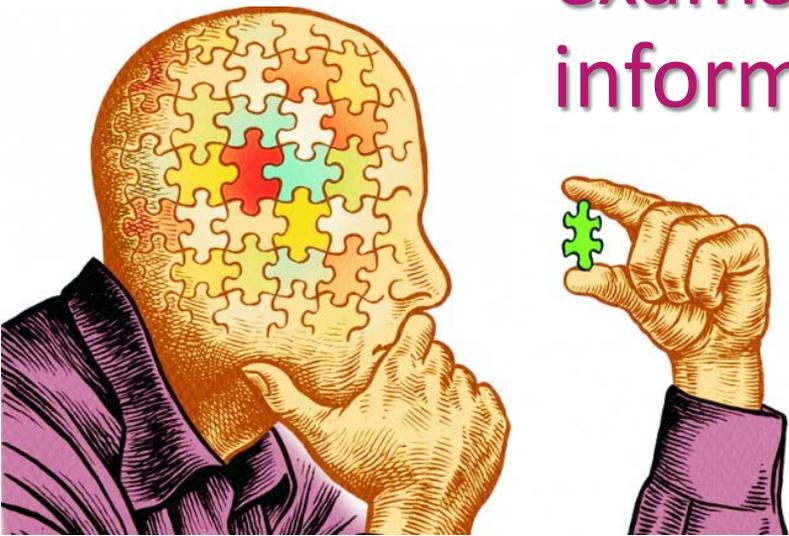


AUSTIN
COLLEGE

Academic Skills Center

Today's session will include:

- Learning how to Select Main Ideas (SMI): identifying important information while reading or listening
- Test Strategies (TST): How to prepare for exams and approach professors to filter information when studying for tests



5

Accounting Systems

When starting to read:

- Scan the topics before reading the chapter
- This prepares your brain and formulates questions in your mind
- Our brains are just naturally curious
- Many times your predictions are correct

LEARNING OBJECTIVES

After completing this chapter, you should be able to:

- LO1 Describe processing methods of accounting information systems.
- LO2 Describe components of an accounting information system.
- LO3 Journalize and post transactions using special journals and subsidiary ledgers.
- LO4 Explain the basic theory of accounting information systems.
- LO5 Compare the advantages and disadvantages of manual and computerized accounting information systems.

Lecture slideshow-LP5-1
www.mhhe.com/LLPW1e

When reading assignments:

1-2 Properties of Matter

Dictionary definitions of chemistry usually include the terms *matter*, *composition*, and *properties*, as in the statement that “chemistry is the science that deals with the composition and properties of matter.” In this and the next section, we will consider some basic ideas relating to these three terms in hopes of gaining a better understanding of what chemistry is all about.

Matter is anything that occupies space and displays the properties of *mass* and *inertia*. Every human being is a collection of matter. We all occupy space, and we describe our mass in terms of weight, a related property. (Mass and weight are described in more detail in Section 1-4. Inertia is described in Appendix B.) All the objects that we see around us consist of matter. The gases of the atmosphere, even though they are invisible, are matter—they occupy space and have mass. Sunlight is *not* matter; rather, it is a form of energy. Energy is discussed in later chapters.

Composition refers to the parts or components of a sample of matter and their relative proportions. Ordinary water is made up of two simpler substances—hydrogen and oxygen—present in certain fixed proportions. A chemist would say that the composition of water is 11.19% hydrogen and 88.81% oxygen by mass. Hydrogen peroxide, a substance used in bleaches and antiseptics, is also made up of hydrogen and oxygen, but it has a different composition. Hydrogen peroxide is 5.93% hydrogen and 94.07% oxygen by mass.

Properties are those qualities or attributes that we can use to distinguish one sample of matter from others; and, as we consider next, the properties of matter are generally grouped into two broad categories: physical and chemical.

Physical Properties and Physical Changes

A **physical property** is one that a sample of matter displays without changing its composition. Thus, we can distinguish between the reddish brown solid, copper, and the yellow solid, sulfur, by the physical property of *color* (Fig. 1-2).

Another physical property of copper is that it can be hammered into a thin sheet of foil (see Figure 1-2). Solids having this ability are said to be *malleable*. Sulfur is not malleable. If we strike a chunk of sulfur with a hammer, it crumbles into a powder. Sulfur is *brittle*. Another physical property of copper that sulfur does not share is the ability to be drawn into a fine wire (ductility). Also, sulfur is a far poorer conductor of heat and electricity than is copper.

Sometimes a sample of matter undergoes a change in its physical appearance. In such a **physical change**, some of the physical properties of the sample may change, but its composition remains unchanged. When liquid water freezes into solid water (ice), it certainly looks different and, in many ways, it is different. Yet, the water remains 11.19% hydrogen and 88.81% oxygen by mass.

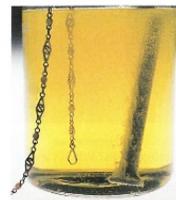


▶ FIGURE 1-2
Physical properties of sulfur and copper
A lump of sulfur (left) crumbles into a yellow powder when hammered. Copper (right) can be obtained as large lumps of native copper, formed into pellets, hammered into a thin foil, or drawn into a wire.

Chemical Properties and Chemical Changes

In a **chemical change**, or **chemical reaction**, one or more kinds of matter are converted to new kinds of matter with different compositions. The key to identifying chemical change, then, comes in observing a *change in composition*. The burning of paper involves a chemical change. Paper is a complex material, but its principal constituents are carbon, hydrogen, and oxygen. The chief products of the combustion are two gases, one consisting of carbon and oxygen (carbon dioxide) and the other consisting of hydrogen and oxygen (water, as steam). The ability of paper to burn is an example of a chemical property. A **chemical property** is the ability (or inability) of a sample of matter to undergo a change in composition under stated conditions.

Zinc reacts with hydrochloric acid solution to produce hydrogen gas and a solution of zinc chloride in water (Fig. 1-3). This reaction is one of zinc's distinctive chemical properties, just as the inability of gold to react with hydrochloric acid but also with water. In some of their physical properties, zinc, gold, and sodium are similar. For example, each is malleable and a good conductor of heat and electricity. In most of their chemical properties, though, zinc, gold, and sodium are quite different. Knowing these differences helps us to understand why zinc, which does not react with water, is used in roofing nails, roof flashings, and rain gutters, and sodium is not. Also, we can appreciate why gold, because of its chemical inertness, is prized for jewelry and coins: It does not tarnish or rust. In our study of chemistry, we will see why substances differ in properties and how these differences determine the ways in which we use them.

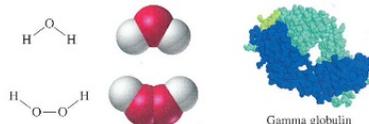


▲ FIGURE 1-3
A chemical property of zinc and gold: reaction with hydrochloric acid
The zinc-plated (galvanized) nail reacts with hydrochloric acid, producing the bubbles of hydrogen gas seen on its surface. The gold bracelet is unaffected by hydrochloric acid. In this photograph, the zinc plating has been consumed, exposing the underlying iron nail. The reaction of iron with hydrochloric acid imparts some color to the acid solution.

1-3 Classification of Matter

Matter is made up of very tiny units called **atoms**. Each different type of atom is the building block of a different chemical **element**. Presently, the International Union of Pure and Applied Chemistry (IUPAC) recognizes 112 elements, and *all* matter is made up of just these types! The known elements range from common substances, such as carbon, iron, and silver, to uncommon ones, such as lutetium and thulium. About 90 of the elements can be obtained from natural sources. The remainder do not occur naturally and have been created only in laboratories. On the inside front cover you will find a complete listing of the elements and also a special tabular arrangement of the elements known as the *periodic table*. The periodic table is the chemist's directory of the elements. We will describe it in Chapter 2 and use it throughout most of the text.

Chemical compounds are substances comprising atoms of two or more elements joined together. Scientists have identified millions of different chemical compounds. In some cases, we can isolate a molecule of a compound. A **molecule** is the smallest entity having the same proportions of the constituent atoms as does the compound as a whole. A molecule of water consists of three atoms: two hydrogen atoms joined to a single oxygen atom. A molecule of hydrogen peroxide has two hydrogen atoms and two oxygen atoms; the two oxygen atoms are joined together and one hydrogen atom is attached to each oxygen atom. By contrast, a molecule of the blood protein gamma globulin is made up of 19,996 atoms, but they are of just four types: carbon, hydrogen, oxygen, and nitrogen.



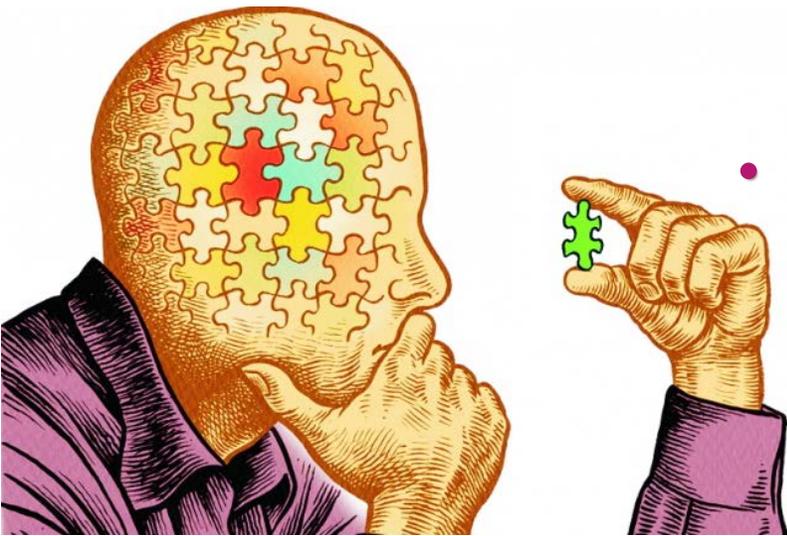
- Topic headings
- Bold words
- Illustrations
- Anything split into categories
- Reading the questions at the back of the chapters before

◀ The International Union of Pure and Applied Chemistry (IUPAC) recognizes 112 elements, and *all* matter is made up of just these types! The known elements range from common substances, such as carbon, iron, and silver, to uncommon ones, such as lutetium and thulium. About 90 of the elements can be obtained from natural sources. The remainder do not occur naturally and have been created only in laboratories. On the inside front cover you will find a complete listing of the elements and also a special tabular arrangement of the elements known as the *periodic table*. The periodic table is the chemist's directory of the elements. We will describe it in Chapter 2 and use it throughout most of the text.

◀ The identity of an atom is established by a feature called its atomic number (see Section 2-3). Recent report of other new elements, such as elements 113 to 116 and 118, await confirmation. Characterizing “superheavy” elements is a daunting challenge; they are produced only a few atoms at a time and the atoms disintegrate almost instantaneously.

Reading for the Main Idea

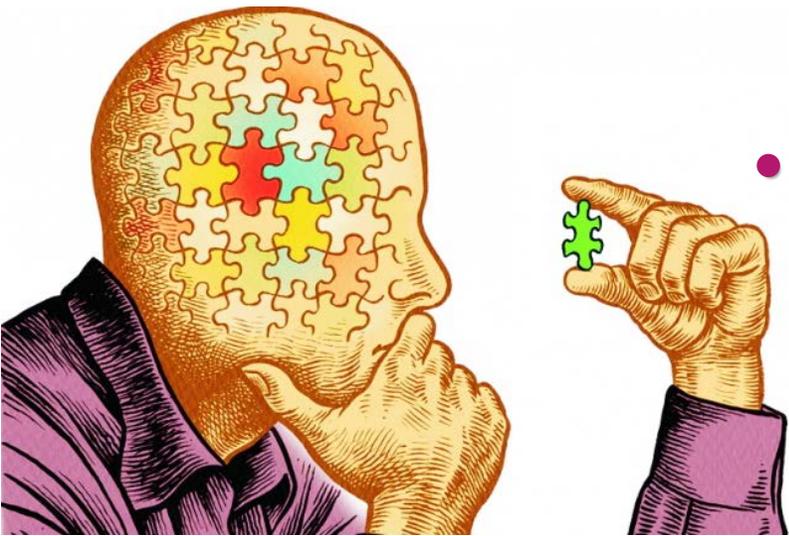
- Main Idea is the primary point
- Visual Metaphor – Painting
 - Details look good on their own
 - All work together to complete the big picture
 - Larger picture is the main idea
 - Supporting details help illustrate, reinforce or validate the main idea
 - Just ONE main idea!



Get with a partner/small group and read this paragraph:

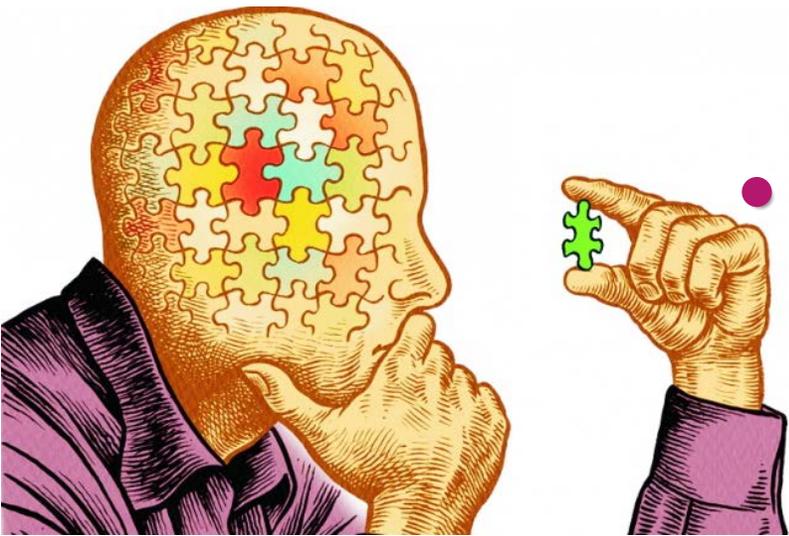
School uniforms benefit students in many ways. When students wear the same clothing, they are less likely to bully one another. Uniforms also encourage students to focus on what they are studying rather than what they are wearing. On top of that, uniforms are often more accessible to low-income students. Psychologically, educationally and financially, requiring students to wear the same attire can help them succeed in school.

- Main idea or “big picture” of this paragraph?
- Good for students, correct?
- Can you name the supporting details?
- Decreases bullying, places focus on education, serve low-income families. 😊



Stated vs. Supporting Details:

- Fairly obvious
 - Due to the first and last sentence
 - Explicitly states the main idea
-
- Implied Idea is a little more difficult
 - Need to infer or extrapolate the main idea
 - Based on the supporting details.



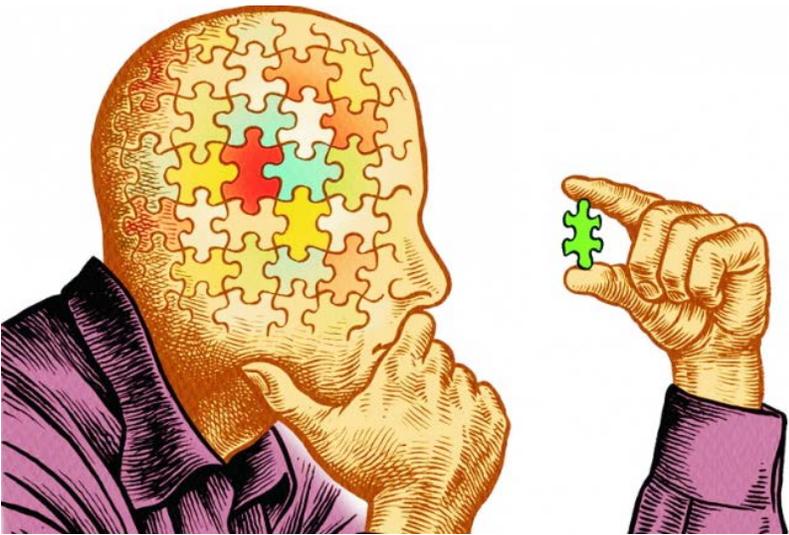
Let's take a closer look...



Consider this alternative version of the previous example:

Turn to a neighbor and read this passage aloud:

The research is clear. Numerous studies show that students who wear uniforms are less likely to bully one another. Some studies also suggest wearing uniforms encourages students to focus on what they are studying rather than what they are wearing. On top of that, uniforms are often more accessible to low-income students.



- Gives supporting details without explicitly stating the main idea.
- Implied main idea or “big picture”
- Supported throughout the passage with details
- Altogether, the main idea remains the same as before: uniforms are good for students.

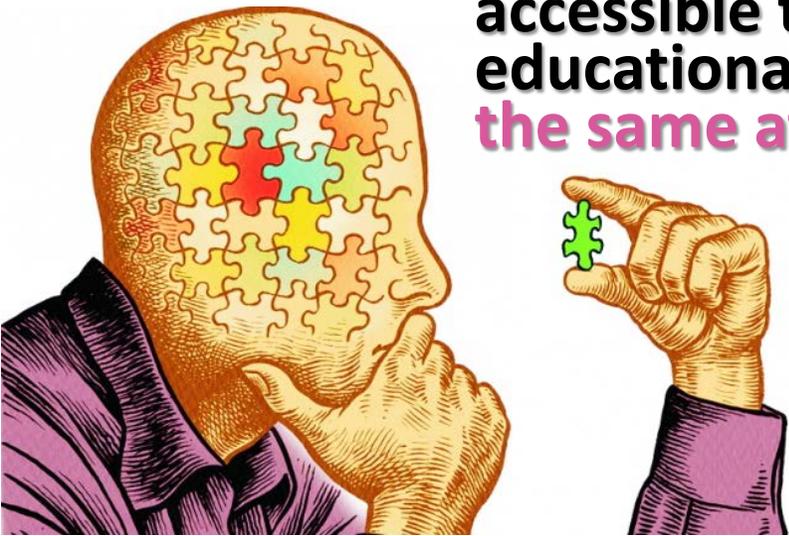
Strategy #1: Key Words

- One strategy for finding the main idea is to track key words and phrases
- Listing the repeated words or phrases can help
- Vocabulary might vary, using synonyms instead

*Let's take another look at the passage from before with key words highlighted:



School uniforms benefit students in many ways. When students wear the **same clothing**, they are less likely to bully one another. **Uniforms** also encourage **students** to focus on what they are studying rather than what they are **wearing**. On top of that, **uniforms** are often more accessible to low-income students. Psychologically, educationally and financially, requiring students to **wear the same attire** can help them succeed in school.



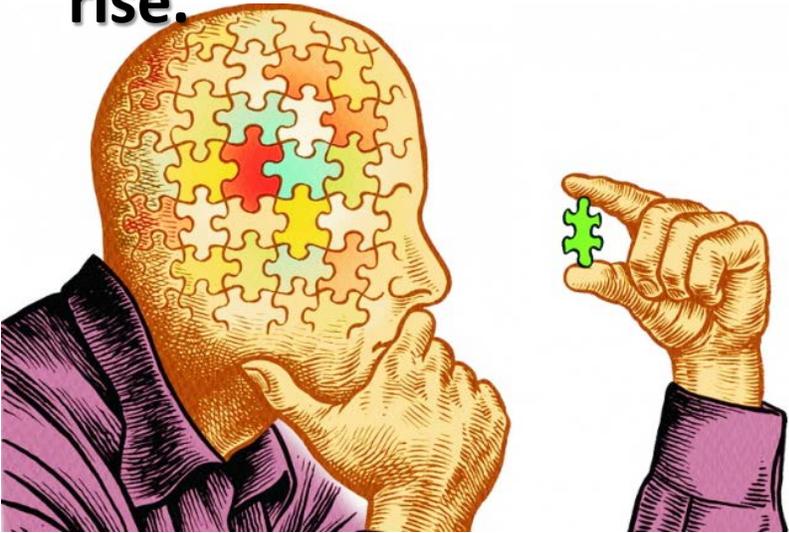
- Every sentence involves a variation of uniform
- Another key word grouping: school/student/study
- Positive language: benefit, encourage, more accessible, and succeed

Strategy #2: First and Last Sentences

- Often the first and last sentence of the paragraph will name the main idea
- Sometimes called the topic sentence, along with the last sentence
- Together they might share key words and phrases or synonyms

*Consider this example:

The digital world just keeps spinning faster and faster. The internet took over 50 years to truly come into existence. That looks glacial compared to today's technological advancements. It took less than 10 years to go from the very first iPhone to two-thirds of all Americans owning a smartphone. In approximately the same span, Facebook grew from a college project to a \$250 billion company. Fads or not, new developments in technology are ever on the rise.



- Is the first sentence clear as the topic sentence?
- What is obvious about the first and last sentence?
- Both sentences identify the main idea: that technology is developing more and more rapidly.
- Other sentences support the main idea with details.



Strategy #3: Proportion of Ideas

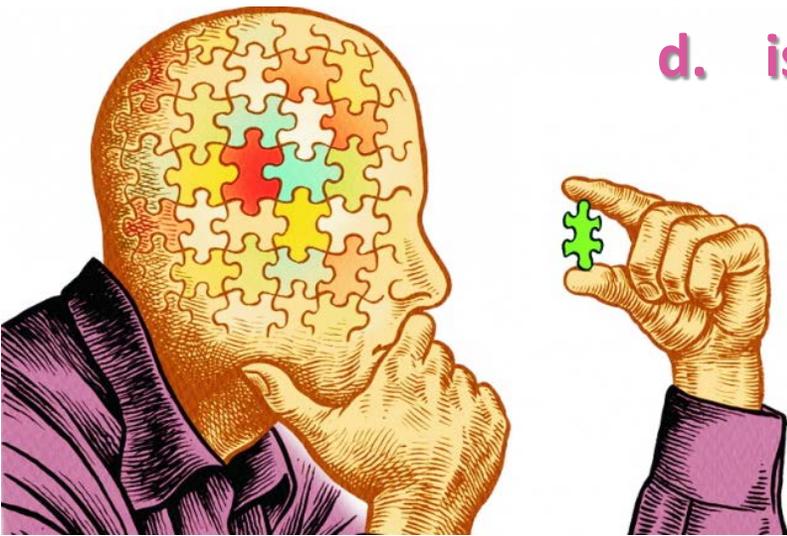
- This strategy examines the proportion of ideas
- Many times there are minor details scattered throughout the passage
- Remember to focus on the BIG picture, and not lose sight of that

*Using the previous example about technology, for instance the test might ask something like this: :

The author's primary point is that technology...

- a. works similarly to a glacier
- b. affects two-thirds of Americans
- c. is worth \$250 billion
- d. is growing extremely quickly

- It's a little tricky because all 4 choices name something from the passage
- Notice that choices a, b. and c name items mentioned only once
- Option d is supported by the first sentence, last sentence and supported throughout the entire passage which is the largest portion of the main idea



Excerpt talking about The First Europeans in America

While the Spanish were pushing up from the south, the northern portion of the present – day United States was slowly being revealed through the journeys of men such as Giovanni da Verrazano. A Florentine who sailed for the French, Verrazano made landfall in North Carolina in 1524, then sailed north along the Atlantic Coast past what is now New York harbor.

A decade later, the Frenchman Jacques Cartier set sail with the hope – like the other Europeans before him – of finding a sea passage to Asia. Cartier's expeditions along the St. Lawrence River laid the foundation for the French claims to North America, which were to last until 1763.

Following the collapse of their first Quebec colony in the 1540s, French Huguenots attempted to settle the northern coast of Florida two decades later. The Spanish, viewing the French as a threat to their trade route along the Gulf Stream, destroyed the colony in 1565. Ironically, the leader of the Spanish forces, Pedro Menéndez, would soon establish a town not far away – St. Augustine. It was the first permanent European settlement in what would become the United States.

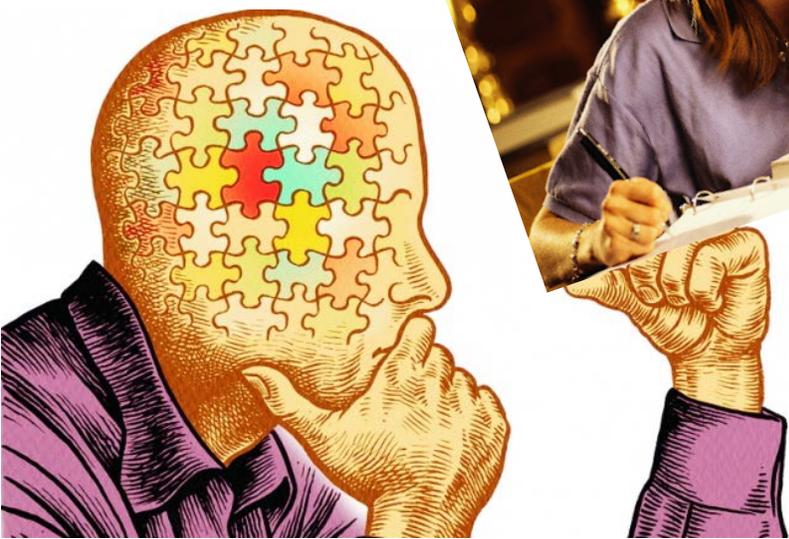
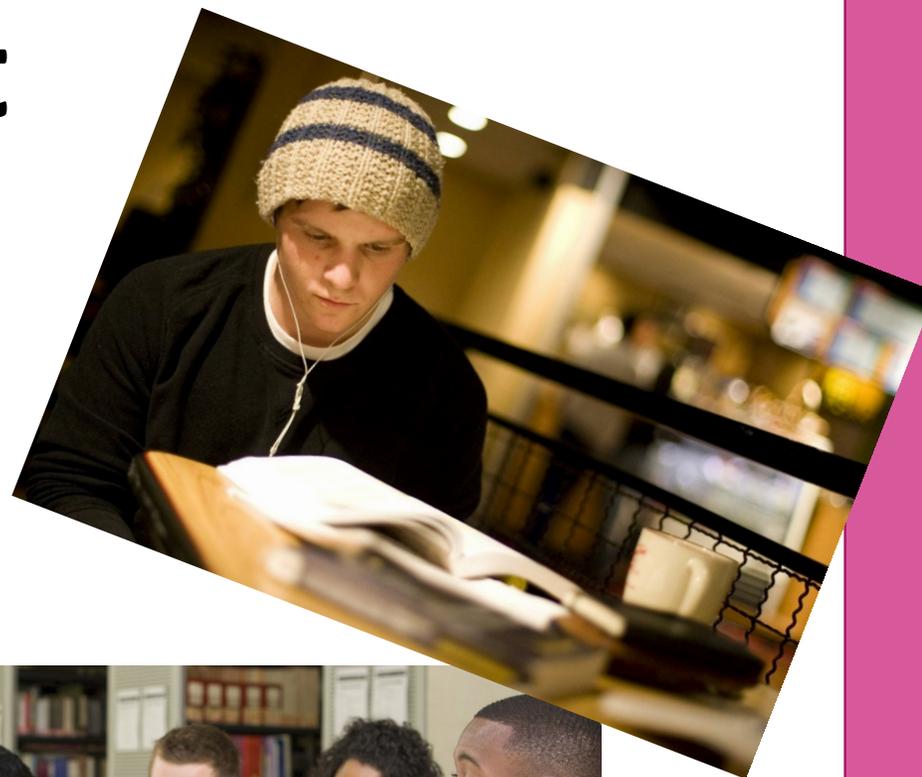
Excerpt talking about The First Europeans in America

While the Spanish were pushing up from the south, the northern portion of the present – day United States was slowly being revealed through the journeys of men such as Giovanni da Verrazano. A Florentine who sailed for the French, Verrazano made landfall in North Carolina in 1524, then sailed north along the Atlantic Coast past what is now New York harbor.

A decade later, the Frenchman Jacques Cartier set sail with the hope – like the other Europeans before him – of finding a sea passage to Asia. Cartier's expeditions along the St. Lawrence River laid the foundation for the French claims to North America, which were to last until 1763.

Following the collapse of their first Quebec colony in the 1540s, French Huguenots attempted to settle the northern coast of Florida two decades later. The Spanish, viewing the French as a threat to their trade route along the Gulf Stream, destroyed the colony in 1565. Ironically, the leader of the Spanish forces, Pedro Menéndez, would soon establish a town not far away – St. Augustine. It was the first permanent European settlement in what would become the United States.

Testing Strategies that Prove to be Effective:



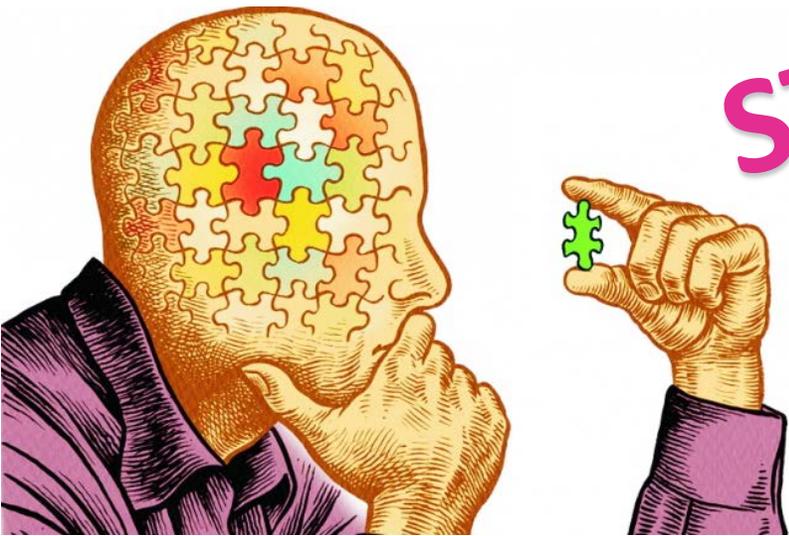
#1 - GET SOME SLEEP

- Sleep builds memory
- Sleep helps synthesize ideas
- Sleep increases performance



STUDY HACK:

- *Review Notes & Study Material*
- *When sleepy, go to bed*



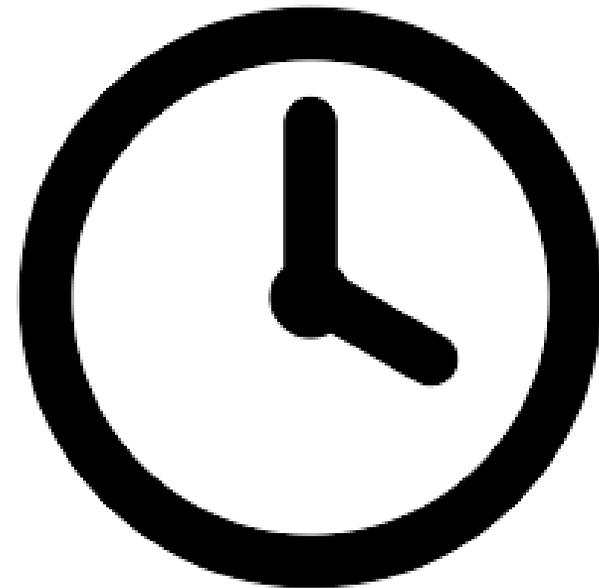
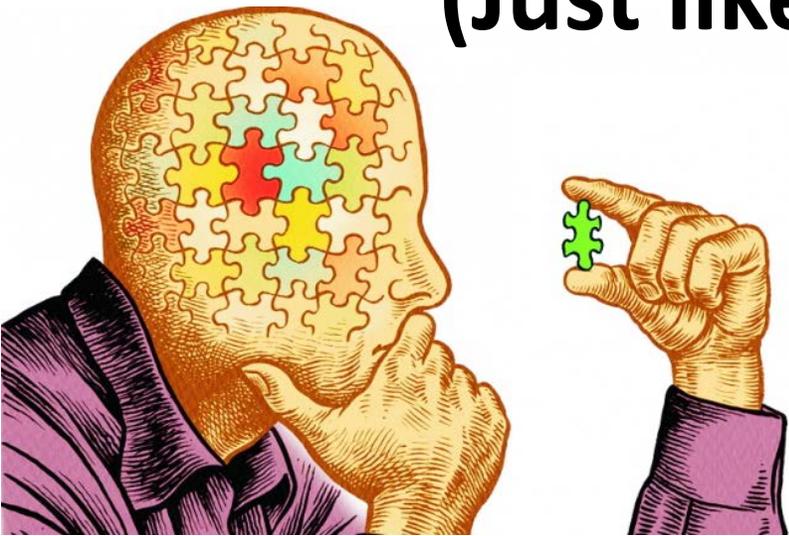
#2 - Plan Practice Time

- Practice Tests are one of the best ways to prepare for exams
- Use study groups to develop practice problems
- Attend review sessions sponsored by the ASC
- Set tutoring appointments with our Peer Tutors in the ASC

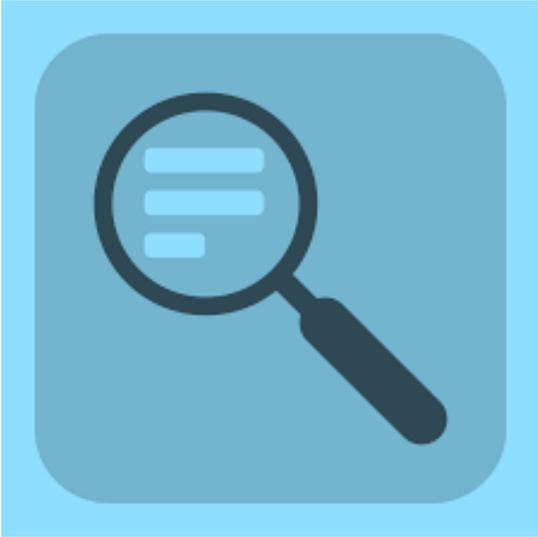


3 - Govern Your *Time and Behavior*

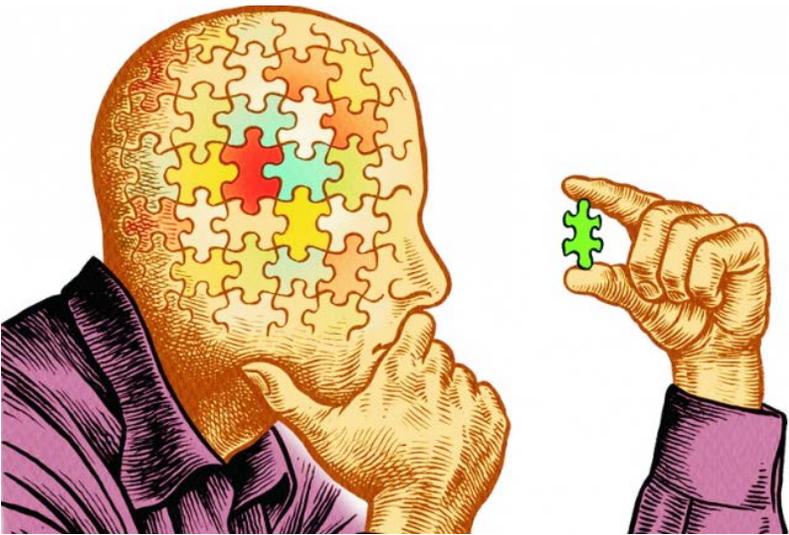
- *Gather* Information
- Review *Frequently & Daily*
- *Spread* it out
- *Plan* Your Practice Time
(Just like athletes do!)



#4 - Gather Information

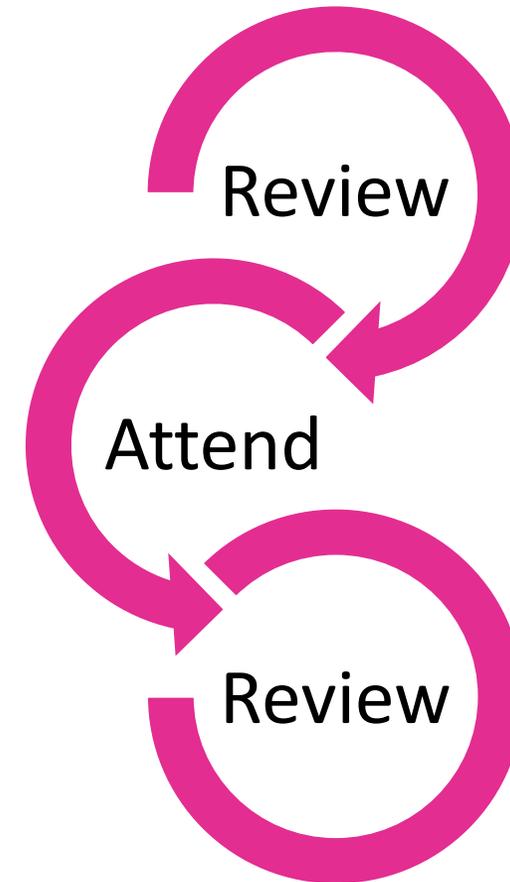
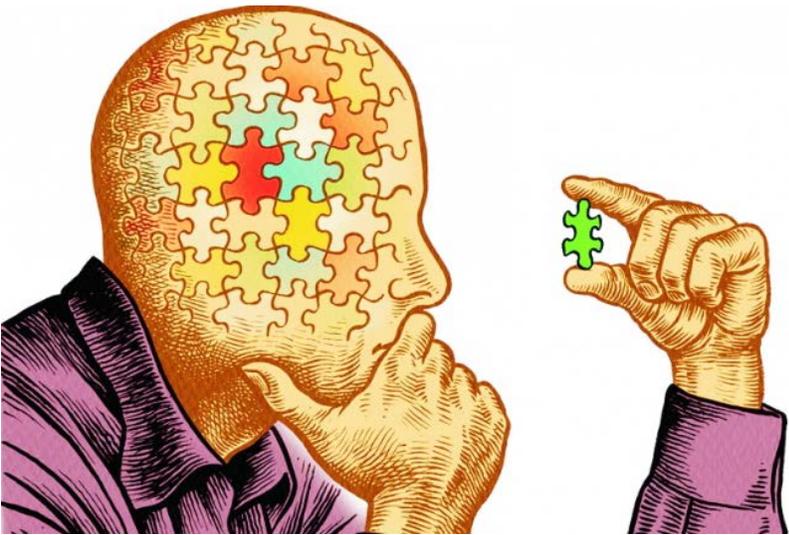


- Ask about the *nature of the test*
- Look for *clues for possible questions*
 - In *Syllabus under “objectives”*
 - In *Notes*
 - In *Readings*
 - In *Class*
- *Review all previously graded material*
- Know *how much* the *exam is worth*

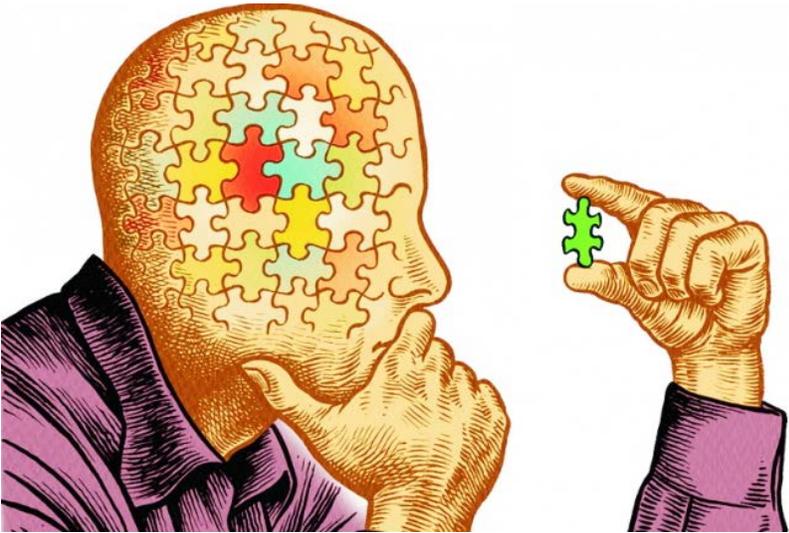


#5 - Review Daily

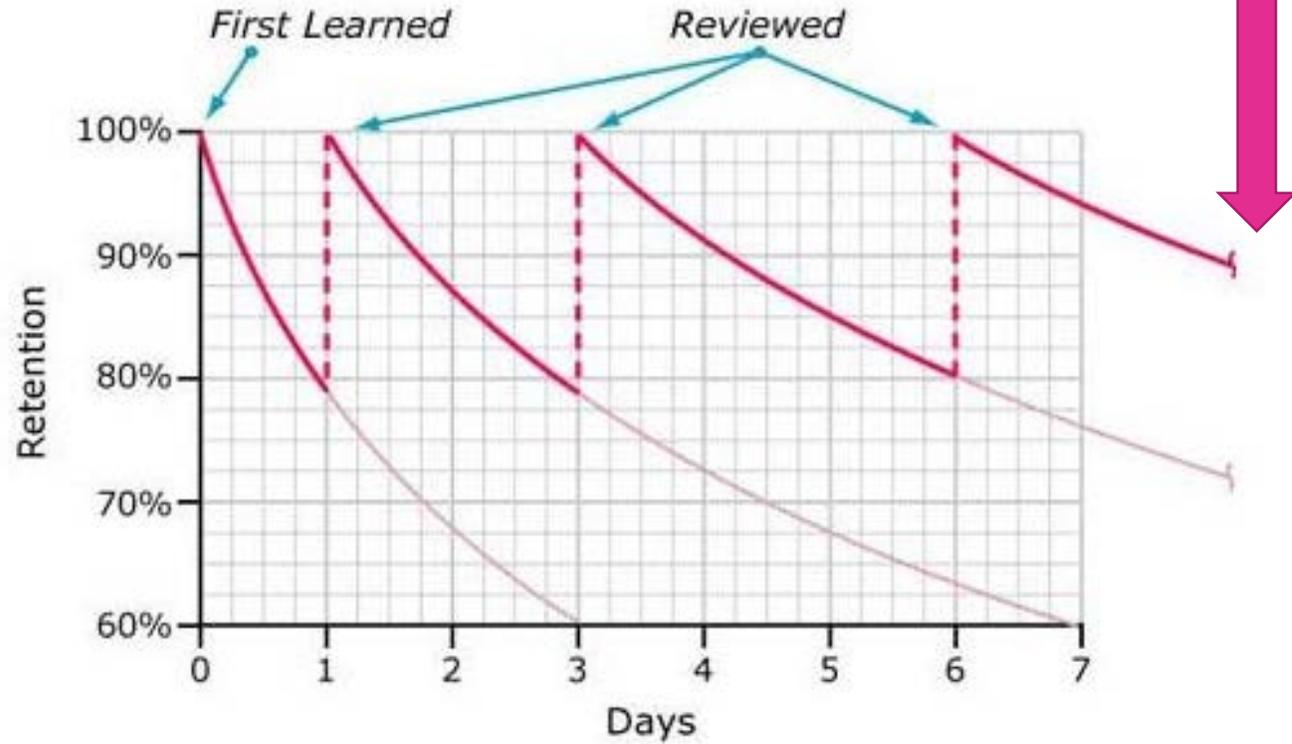
- *Use 5-10 mins effectively*
- **REVIEW BEFORE CLASS**
- **ATTEND CLASS**
- **REVIEW AFTER CLASS**



#6 - THE FORGETTING CURVE!– USE IT OR LOSE IT!

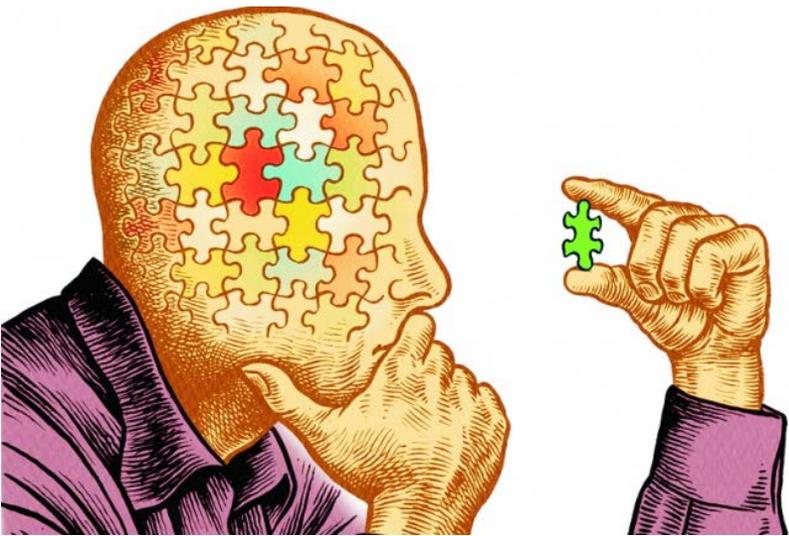


AS HIGH AS 90% RETENTION AFTER 7 DAYS!

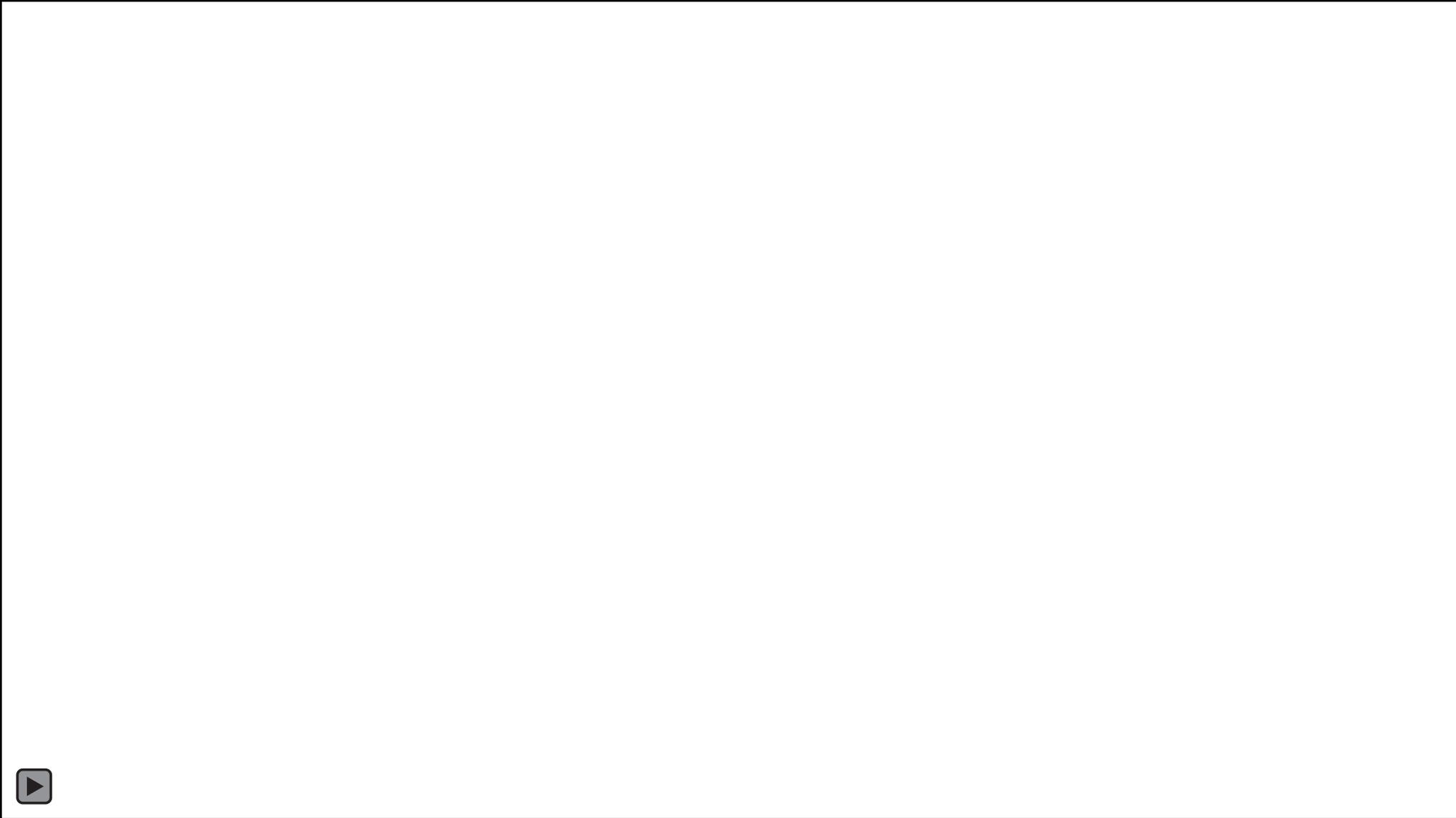


#7 - Go To CLASS (and use office hours)

- This allows you to gather helpful information
- Build connections for study groups or note sharers
- Know your professor's office hours and USE those several times a semester.
- Building a rapport with your professor is vitaly important!
- Attendance and involvement in class leaves positive impression on professors

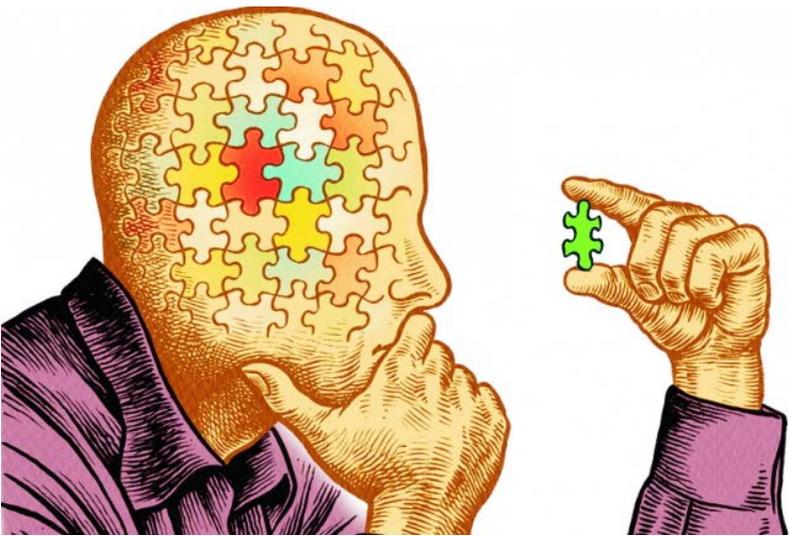


#8 - The Kisselle "Triage" Method!



See you at Thursday's
last session! 😊

You are almost there!!!
AWESOME job everyone!
Have a GREAT evening!



Bye!



Wrap-Up



- What is one strategy from this session that you will try out? (Share that with your neighbor)
- How can you assess that the strategy worked? (Maybe ask them to hold you accountable and see how you're doing in a week?)

