



Effective Teaching Strategies

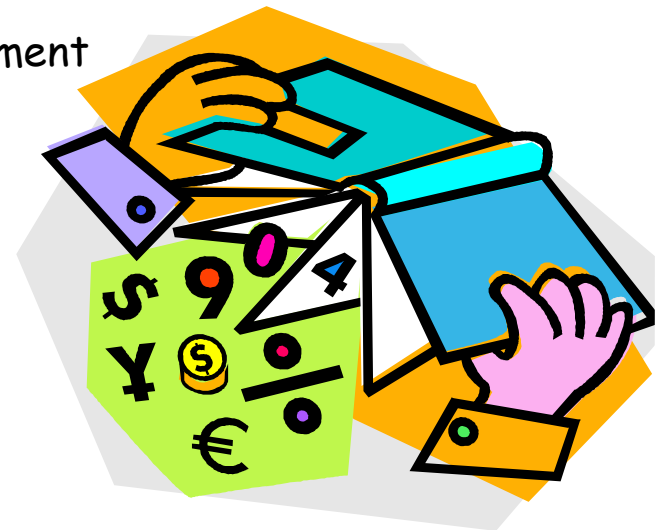
Summarizing and Note Taking

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As a result of this workshop, participants will be able to:

- Understand how summarizing and note taking enhance students' understanding and ability to use knowledge
- Know how to apply these instructional strategies in your classroom.

Meta-analysis Results for Categories of Learning Strategies

Category	Average Effect Size	Average Percentage Gain	Number of Studies
1. Similarities & Differences	1.61	45	31
2. Summarizing & Note Taking	1.00	34	179
3. Reinforcing Effort & Providing Recognition	.80	29	21
4. Practice & Homework	.77	28	134
5. Nonlinguistic Representation	.75	27	246
6. Cooperative Learning	.73	27	122
7. Setting Objectives & Providing Feedback	.61	23	408
8. Generating & Testing Hypotheses	.61	23	63
9. Cues & Questions & Advance Organizers	.59	22	1,251

What does student engagement look like?

- What would the **physical layout** of the classroom look like?
- What would I **hear and see** from the students?
- What would we need to **start** doing?
- What would we need to **stop** doing?

The Instructional Strategy

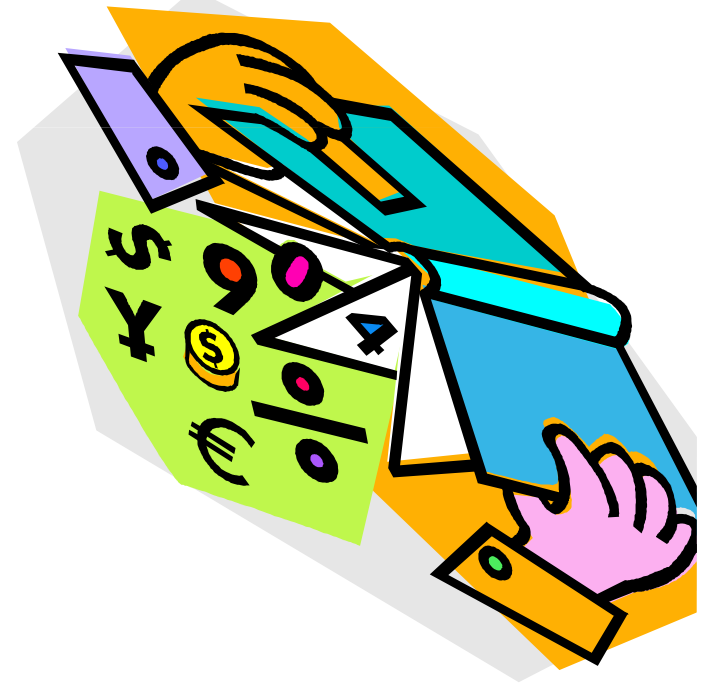
Summarizing



- ❖ Requires that students distill information into a concise, synthesized form and focus on important points and restate the information.
- ❖ Research emphasizes the importance of breaking down the process of summarizing into a structure that can be easily understood by students.

Three Modes of Summarizing

- Rule-based Summarizing
- Summary Frames
- Reciprocal Teaching



Research Generalizations on Summarizing

- **Students must delete some information, substitute some information, and keep some information.**
- **To effectively delete, substitute, and keep information, students must analyze the information at a fairly deep level.**
- **Being aware of the explicit structure of information is an aid to summarizing information.**

Steps in Rule-Based Summarizing

1. Delete trivial material that is unnecessary to understanding. Take out material that is not important to your understanding.
2. Delete redundant material. Take out words that repeat information
3. Substitute super-ordinate terms for more specific terms (e.g., use fish for rainbow trout, salmon, and halibut). Replace a list of things with a word that describes the things in the list (e.g., use trees for elm, oak, and maple).
4. Select a topic sentence or invent one if it is missing. Find a topic sentence. If you cannot find a topic sentence, make one up.

"Rule-Based" Strategy

- *Keep*

- Underline or highlight

- *Delete*

- Put a line through

- *Substitute*

- x (cross) out section and in margin replace with short phrase or words that define the idea

Most scientists believe our solar system was formed 4.6 billion years ago with the gravitational collapse of the solar nebula, a cloud of interstellar gas, dust, and ice created from previous generations of stars. As time went on, the grains of ice and dust ~~bumped into~~ and stuck to one another, eventually forming the planets, moons, comets, and asteroids as we know ~~them~~ today.

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The Six Summary Frames

- Narrative Frame
- Topic-Restriction-Illustration Frame
- Definition Frame
- Argumentation Frame
- Problem/Solution Frame
- Conversation Frame

Narrative Frame



Pattern

1. Characters: the characteristics of the main characters in the story;
2. Setting: the time, place, and context in which the story took place;
3. Initiating event: the event that starts the action rolling in the story;
4. Internal response: how the main characters feel about and react to the initiating event;
5. Goal: what the main characters decide to do as a reaction to the initiating event — the goal they set;
6. Consequence: how the main characters try to accomplish the goal;
7. Resolution: how the story turns out.
8. (Components 3-7 are sometimes repeated to create what is called an "episode.")

Questions

1. Who are the main characters? What makes them different from others?
2. When and where did the story take place? What was the situation at the time?
3. What starts the action rolling in the story?
4. How did the characters express their feelings?
5. What did the main characters decide to do? Did they set a goal? What was it?
6. How did the main characters try to accomplish their goal?
7. How does the story turn out? Did the main characters accomplish their goal?

Activity

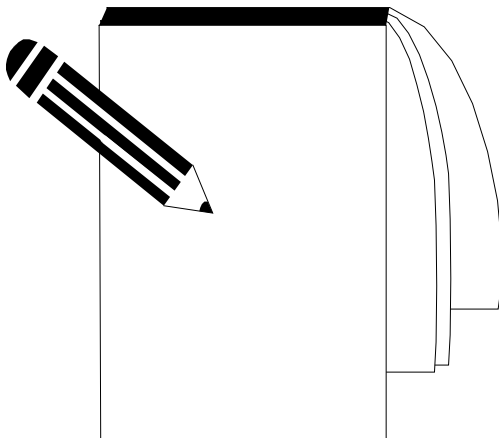
Little Red Riding Hood



Definition Frame

Pattern	Question
Term: the subject to be defined	What is being defined?
Set: the general category to which the term belongs	To which category does the item belong?
Gross characteristics: those characteristics that separate the term from other elements in the set	What characteristics separate the item from other things in the general category?
Minute differences: the different classes of objects that fall directly beneath the term	What are some different types or classes of the item being defined?

Example Definition Frame (handout)



Definition Frame

Passage: There are many different types of quadrilaterals, or four-sided figures, that we learn about when we study geometry. Some of these four-sided figures have unusual names that tell us something about the shape or figure. For example, one type of quadrilateral is the “parallelogram,” which is a four-sided shape whose opposite sides are parallel and the same length. However, this general description fits a number of different shapes. One type of parallelogram that often comes to mind when people first learn about them is a square, which is a shape with four equal sides that meet at right angles. But a square is only one example of a parallelogram. Two others are the rectangle—opposite sides are parallel and meet at right angles—and the rhombus—whose opposite sides are parallel but don’t necessarily meet at right angles.

Frame Questions:

1. What is being defined here? *A parallelogram.*
2. What general category does the item being defined belong to?
Quadrilaterals, four-sided shapes...
3. What characteristics of the item being defined separate it from other items in the general category? *Opposite sides are parallel and the same length.*
4. What are some different types or classes of the item being defined?
Square, rectangle, rhombus.

Summary: *A parallelogram is a four-sided shape whose opposite sides are parallel and the same length. Examples of parallelograms are the square, the rectangle, and the rhombus.*

Sonnets are lyric poems with 14 lines that follow a formal rhyme scheme. The two major types of sonnets are the Petrarchan (Italian) and the Shakespearean (English).

The Petrarchan sonnet, named for the Italian poet Petrarch, consists of an octave, or eight-line stanza, with two quatrains that rhyme a b b a, a b b a. The first quatrain introduces the theme of the sonnet, and the second quatrain develops the theme. The last six lines form a sestet. The first three lines of the sestet illustrate the theme; the last three lines bring closure to the whole poem.

The Shakespearean sonnet, named for the English poet and playwright William Shakespeare, consists of three quatrains, each rhymed differently, and a closing couplet. English sonnets written in the 16th century dealt mainly with love.

Term: What is being defined?

Set: To which general category does the term belong?

Gross Characteristics: What characteristics separate the item from other things in the general category?

Minute Differences: What are some types or classes of the item being defined?

Summary:

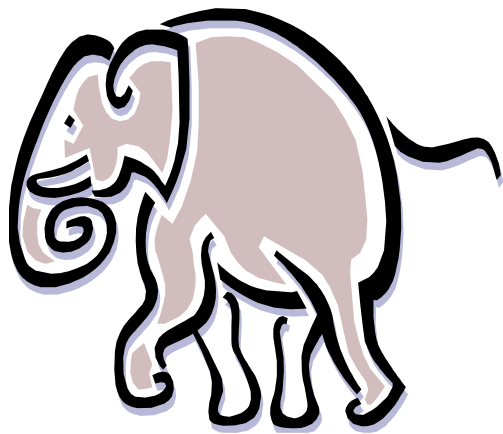
- **Sonnets are lyric poems with 14 lines that follow a formal rhyme scheme. The Petrarchan or Italian sonnet .consist of an octave and a sestet. The Shakespearean or English sonnet consists of three quatrains and a couplet.**



Topic-Restriction-Illustration Frame

Pattern	Question
<p>Topic: a general statement about the topic to be discussed</p>	<p>What is the general statement or topic?</p>
<p>Restriction: statements that limit the information in some way</p>	<p>What information does the author give that narrows or restricts the general statement or topic?</p>
<p>Illustration: statements that exemplify the topic or restriction</p>	<p>What examples does the author give to illustrate the topic or restriction?</p>

Example T-R-I Frame (handout)



T-R-I Frame

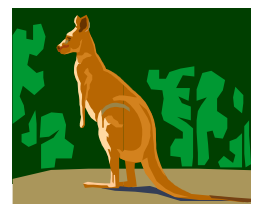
Passage: Millions of years ago, giant animals that are now extinct lived on Earth. One of these giant animals was the mammoth, which could be up to 14 feet tall. The mammoth is a lot like the elephant. Both the mammoth and the elephant have a long trunk and tusks. No one knows for sure why all the mammoths died, but scientists think there were a number of reasons. One reason was the weather, which became much warmer. Another reason was that people hunted mammoths to eat their meat and use their fur and bones for warmth and protection.

Frame Questions:

1. What is the **general topic**? *Giant animals that lived long ago but are now extinct.*
2. What information does the author give that narrows or restricts the **general topic**? *One giant animal was a mammoth.*
3. What examples does the author present to illustrate the topic or **restriction**? *The mammoth could be as tall as 14 feet. The mammoth is like the elephant--both have long trunk and tusks. Mammoths may have died because weather got warmer and because people hunted them too much.*

Summary: *A mammoth is a giant animal that lived long ago, but is extinct. Elephants that live today are similar to the mammoth. Warmer weather and hunting may have caused their extinction.*

Mammals are a group of vertebrate animals – animals with backbones. Mothers nourish baby mammals with milk. Mammals are warm-blooded, which means that they keep their body temperature within a narrow range despite changes in the environment. One sub-group of mammals is the marsupial group. Marsupials give birth to live young, but the babies are still very undeveloped when they are born. Baby marsupials live inside a special pouch on the mother’s stomach and feed on milk supplied by her nipples. Kangaroos are one type of marsupial. They live in Australia and on islands close by. Kangaroos use their large back legs and tails for hopping. Another marsupial is the opossum. The Virginia opossum is the only marsupial that lives in North America. Long, shiny, white hair and an undercoat of soft, woolly fur cover the Virginia opossum. An opossum has 50 teeth. It sleeps during the day and hunts food at night.



Topic: What is the general statement or topic?

Restriction: What information does the author give that narrows or restricts the general statement or topic?

Illustration: What examples does the author present to illustrate the restriction?

Summary:

- **Mammals are warm-blooded animals with backbones. Mothers feed their young with milk. Marsupials are a category of mammals. Two examples of marsupials are the kangaroo and opossum.**



Argumentation Frame

Pattern	Questions
Evidence: information that leads to a claim	What information does the author present that leads to a claim?
Claim: the assertion that something is true	What does the author assert is true? What basic statement or claim is the focus of the information?
Support: examples of or explanations for the claim	What examples or explanations support the claim?
Qualifier: a restriction on the claim or evidence counter to the claim	What restrictions on the claim, or evidence counter to the claim, are presented?

State and local parks, recreation facilities, wildlife habitats, and open-space initiatives benefit from the proceeds of our state lottery games. Multistate lotteries involve more players than our state's current lottery games, so they offer potentially bigger pay-offs. They also offer additional funding for state parks, wildlife habitats, and open space. Our state should join a multistate lottery.

Joining a multistate lottery will increase lottery revenues and help our state continue to support our parks, recreation facilities, wildlife habitats, and open space. Further, because a multistate lottery has the potential to generate even more money than the current state lottery, the state will have a source of revenue to spend on health and safety problems in public schools.

Now people drive out of state to purchase tickets. The money that our states' citizens spend on lottery games should stay in our state. Also, these multistate lotteries are the only way for people in smaller states, like ours, to win really big jackpots. Tickets for the big lottery games are usually cheap, typically only one dollar, but they give players the potential to win millions of dollars.

We do have opportunities to participate in lottery games in our state, but joining a multistate lottery would give citizens more choices.

Evidence: What information does the author present that leads to a claim?

Our state should join a multistate lottery.

Claim: What does the author assert is true?

The state benefits from state lottery games. Multistate lottery games offer more money for state programs.

Support: What examples or explanations support the claim?

Multistate lotteries will give the state money. People drive out of state and spend money on lottery tickets. Multistate lotteries are the only way for people living in small states to win big money. Tickets are cheap.

Qualifier: What restrictions on the claim are present?

Our state already has lottery games.

Summary:

- **Although our state already has lottery games, joining a multistate lottery would provide more benefits to the state. Joining a multistate lottery would keep more money in the state and allow players to win bigger jackpots.**



Problem/Solution Frame

Pattern	Question
Problem: a statement of something that has happened or might happen that is problematic	What is the problem?
Solution: a description of one possible solution	What is a possible solution?
Solution: a statement of another possible solution	What is another possible solution?
Solution: a statement of another possible solution	What is another possible solution?
Solution: identification of the solution with the greatest chance of success	Which solution has the best chance of succeeding?

Humans are consuming fossil fuels at much faster rates than they are produced in the Earth's crust. Eventually, we will use up these nonrenewable resources. We don't know for certain when the Earth's fossil fuels will be depleted, but we have already seen evidence that certain fossil fuels are being depleted in some regions. For example, the United State's production of crude petroleum was at its highest in 1970. Since that time, the United States has begun importing a higher percentage of petroleum.

Reducing the world's dependence on fossil fuels is problematic. However, there are several alternative energy sources, including nuclear energy, hydroelectric energy, solar energy, and wind energy. These energy sources currently account only for about 14 percent of the world's energy consumption; therefore, we need to focus efforts on developing these viable alternatives.

(Paragraphs about each energy source have been omitted.)

There is no clear answer to the diminishing supply of fossil fuels available for energy production. Given the intricacies and limitations of alternative energy sources, the solution for each nation depends on a variety of factors, including geography, citizen concerns, and environmental issues.

Problem: What is the problem?

Depletion of fossil fuels.

Solution: What is a possible solution?

Nuclear energy

Solution: What is another possible solution?

Hydroelectric energy

Solution: What is another possible solution?

Solar energy

Solution: What is another possible solution?

Wind energy

Solution: Which solution has the best chance of succeeding?

The solution depends on a variety of factors, including geography, citizen concerns, and environmental issues.

Summary:

Humans are consuming fossil fuels at much faster rates than they are produced in the Earth's crust. We need to find ways to use alternative energy sources more efficiently. Nuclear energy, hydroelectric energy, solar energy, and wind energy are all sources for supplementing and eventually replacing the use of fossil fuels. Development of any of these alternatives faces obstacles and concerns. There is not one correct answer, rather , the solution will be different for different countries.



Conversation Frame

Pattern	Question
<p>A conversation frame is a verbal interchange between two or more people. Commonly, a conversation has the following components:</p> <ol style="list-style-type: none">Greeting: some acknowledgment that the parties have not seen each other for a while.Inquiry: a question about some general or specific topic.Discussion: an elaboration or analysis of the topic. Commonly included in the discussion are one or more of the following:<ul style="list-style-type: none"><i>Assertions:</i> statements of facts by the speaker.<i>Requests:</i> statements that solicit actions from the listener.<i>Promises:</i> statements that assert that the speaker will perform certain actions.<i>Demands:</i> statements that identify specific actions to be taken by the listener.<i>Threats:</i> statements that specify consequences to the listener if commands are not followed.<i>Congratulations:</i> statements that indicate the value the speaker puts on something done by the listener.Conclusion: the conversation ends in some way.	<ol style="list-style-type: none">How did the members of the conversation greet each other?What question or topic was insinuated, revealed, or referred to?How did the discussion progress?<ul style="list-style-type: none">Did either person state facts?Did either person make a request of the other?Did either person demand a specific action of the other?Did either person threaten specific consequences if a demand was not met?Did either person indicate that he/she valued something that the other had done?How did the conversation conclude?

Reciprocal Teaching

SUMMARIZER



CLARIFIER



QUESTIONER



PREDICTOR



Reciprocal Teaching

- Students read a paragraph together.
- Each student has a role to help the group write a summary.

- Summarizing
- Questioning
- Clarifying
- Predicting



SUMMARIZER



SUMMARIZER

- "Wrap up the main ideas of the text like a ball of yarn."
- "Tell in a few sentences what happened in this section."
- "To summarize the information in this section, _____."
- "Who would like to add to this summary?"

QUESTIONER



QUESTIONER

- "Please think about the following question: _____."
- "Why _____?"
- "What was _____?"
- "Who _____?"
- "What do other group members think?"
- "Who has another point of view?"

CLARIFIER



CLARIFIER

"Look deeper at the text as if using a magnifying glass."

"Define any unknown terms and concepts."

- "Here is a word I would like to clarify: _____."
- "Who can help us clarify this word: _____?"
- "Who else would like a word clarified?"

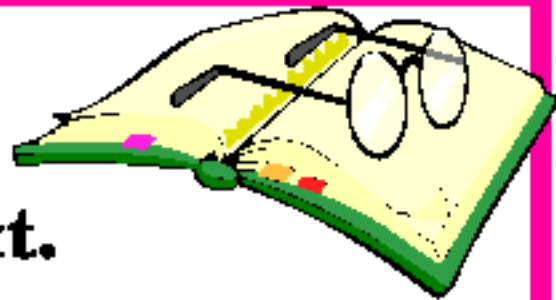
PREDICTOR



PREDICTOR

- "Like a fortune teller, predict what will happen in the future."
- "Tell what you believe will happen next, according to your information."
- "Based on _____, I believe that _____ will _____."
- "In the text, _____; therefore, I predict _____."
- "Who else has predictions about what will happen next?"

SQP2RS



Survey: Preview text.

Question: List 1-3 questions you think we'll find answers to.

Predict: State 1-3 things we'll learn.

Read: Read text.

Respond: Try to answer questions. Modify, drop, add.

Summarize: At end of text

SQP2RS

Survey

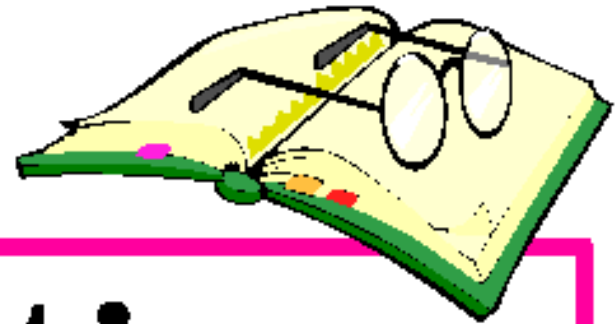


Survey

Explore the text before reading

- 1) Look at the pictures and captions.**
- 2) Read the highlighted and bold words.**
- 3) Read the headings and subheadings.**
- 4) Think about what you are about to read.**

SQ P2RS



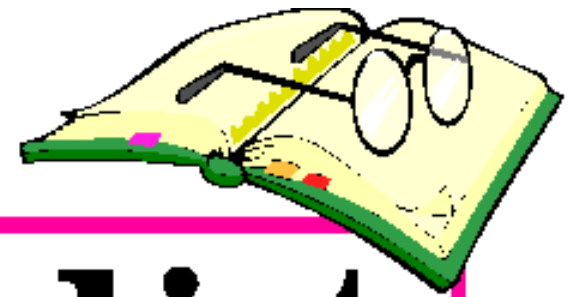
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Question

*What questions
will we answer?*

**Generate
questions that we
will be able to
answer after we
read.**

SQ**P****2RS**



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Predict

*What will we
learn?*

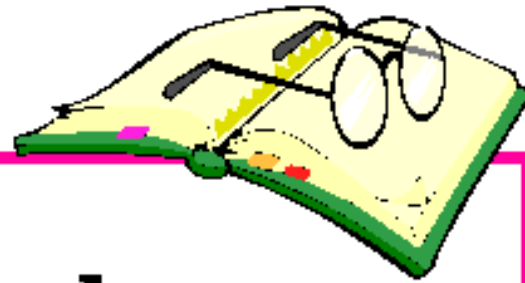
**Predict 1 to 3
things we will
learn while
reading.**

MaryEllen Vogt, 2004
(posters designed by Lisa Mitchener)

SQP2RS

**Read
the
text**

**e
a
d**



Read:

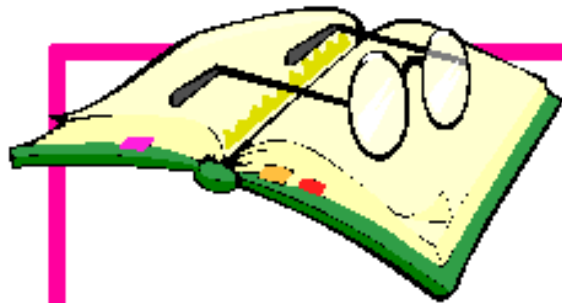
1) alone

2) with teacher

3) with partner

4) with group

SQP2RS



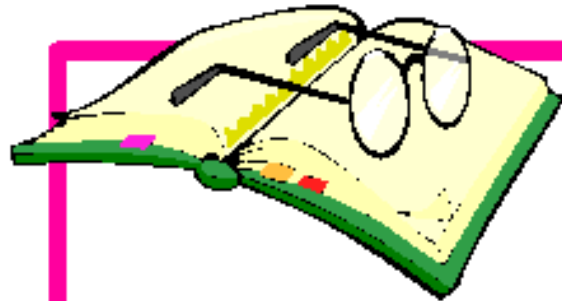
Respond

Which questions were answered?

- 1) Discuss which questions were answered in the text.**
- 2) Review which questions were not answered.**
- 3) Eliminate questions that are not likely to be answered.**
- 4) Develop new questions.**
- 5) Continue surveying process.**

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SQP2R



Summarize

*What did we
learn?*

**Summarize what we
have learned.**

1) Orally

2) Written

**S
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Title of Article or Chapter: _____

<p>Survey: <i>(Before you read.</i> What will this reading assignment be about? Look at titles and pictures)</p>	
<p>Question: <i>(Before you read.</i> Write 1-3 questions you may be able to answer from reading)</p>	<p>1. 2. 3.</p>
<p>Predict: <i>(Before you read.</i> Can you predict 1-3 things we will learn?)</p>	<p>1. 2. 3.</p>
<p>Read!</p>	<p>(you don't have to write anything in this box)</p>
<p>Respond <i>(After you Read.</i> Try to answer questions: modify, drop, and add)</p>	
<p>Summarize: <i>(After you Read)</i> Four Sentence Summary: Sentence 1: Main Idea (identify what was read, verb [<i>explains, lists, argues, describes, etc</i>], finish thought). . Sentences 2-4: D'REF: Details, Reasons, Examples, Facts</p>	<p>_____ _____ _____ _____ _____ _____ _____ _____</p>

Somebody/Wanted/But/So

<i>Somebody</i> (Identify the character)	<i>Wanted</i> (Describe the character's goal)
<i>But</i> (describe a conflict that hinders the character)	<i>So</i> (describe the resolution of the conflict)

Somebody	Wanted	But	So
The Big Bad Wolf	Pigs for dinner	They hid in the brick house.	He went hungry.
Anne Frank	To hide from the Nazis	Someone turned her in	She died in a concentration camp.
Adolf Hitler	To control all of Europe	The Allies fought against him	He killed himself when Germany was defeated.
Christopher Columbus	To sail to India to buy spices	He ran into the Caribbean Islands	He claimed the area for Spain.
Thomas Edison	To invent the incandescent light bulb	His light bulb blackened (the Edison effect)	It later led to the electron tube, the basis of the electronics industry
Stephen Hawking	To be a mathematician	His father wanted him to be a chemist	He combined science and math to study black holes in the universe.

Somebody	Wanted	But	So

LESSON CLOSURE

Today's lesson

.....

..... . One key idea was

.....

..... . This is important because

.....

..... . Another key idea

.....

..... . This matters because

.....

..... . In sum, today's
lesson

.....

.....

.....

.....

A Rubric for Summarizing

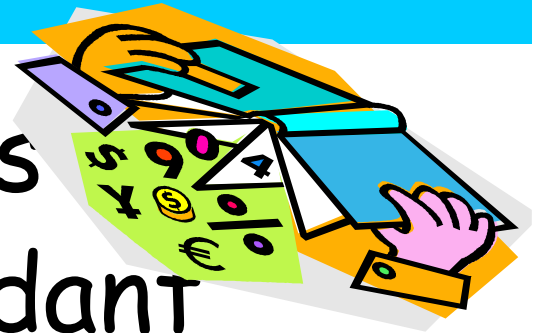
- The author's main idea is paraphrased clearly and completely.
- The important details are included for each main idea.
- Unimportant and redundant information are not included.
- The summary is organized in a logical and sequential manner

A Rubric for Summarizing

4	The student identifies the main pattern running through the information along with minor patterns.
3	The student identifies the main pattern running through the information.
2	The student addresses some of the features of the main pattern running through the information but excludes some critical aspects.
1	The student does not address the main pattern running through the information.
0	Not enough information to make a judgment.

FOUR RULES FOR PRODUCING SUMMARIES

- Identify main idea words
- Delete trivial and redundant words or information
- List or outline the main idea and details
- Relate main idea and supporting details verbally or in writing



Planning for Summarizing

What knowledge will students be learning?

What specific information will students need to summarize?

- film or video
- chapter
- lecture
- story
- article
- event
- other _____

What strategy will I ask students to use?

- Rule-based Summarizing Strategy
- Summary Frames
 - Narrative or Story
 - TRI
 - Definition
 - Argumentation
 - Problem/Solution
 - Conversation
- Other _____

Do I need to set aside time to teach them the strategy? When and how?

How much guidance will I provide them?

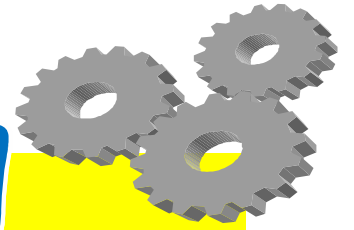
How will I monitor how well students are doing?

Reflection

- Reflect on the implementation of the strategy in your classroom.



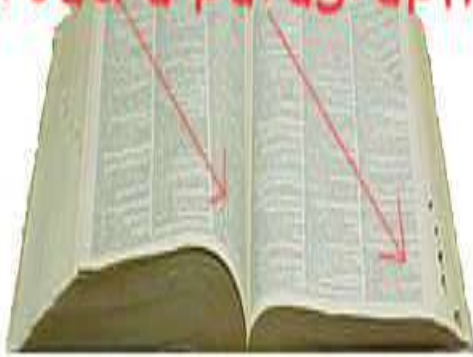
Note Taking



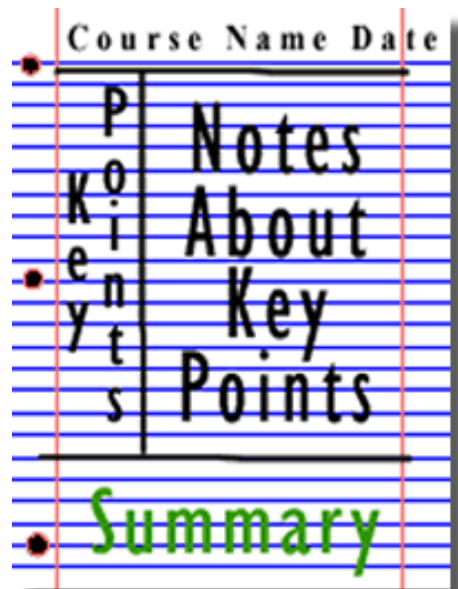
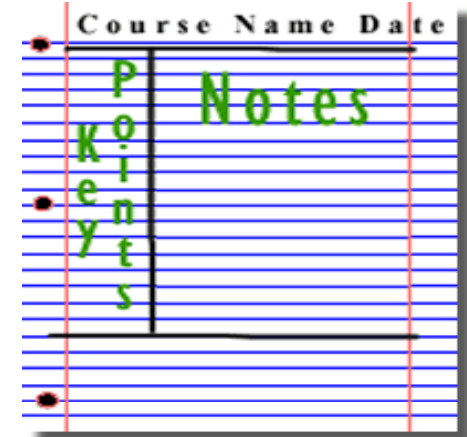
- Note taking is a strategy related to summarizing in which large pieces of information or text are reduced to main ideas and key points. Effective note taking will lead to an increase in student learning.

Note Taking

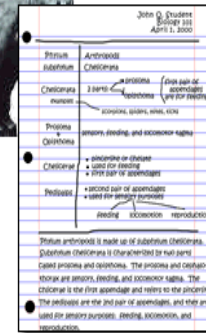
read a paragraph



What are the main ideas & details?



Review and Clarify



Pull out main ideas

1. Verbatim note taking is, perhaps, the least effective way to take notes.

- Students try to record everything they hear or read, they are not engaged in the act of synthesizing information.
- Trying to record all of what is heard or read takes up so much of student's working memory that he or she does not have "room" to analyze the incoming information

2. Notes should be considered a work in progress.

- Teachers should systematically provide time for students to go back over their notes- reviewing and revising them.
- The review-and-revision process might help students identify and correct misconceptions in notes they have previously taken.

3. Notes should be used as study guides for tests.

- If notes have been well designed and students have systematically elaborated on them, they can provide a powerful form for review for students (Carrier & Titus, 1981; Carter & Van Matre, 1975)

4. The more notes that are taken, the better.

- There is a strong relationship between the amount of information taken in notes and students' achievement on examination (Nye, Crooks, Powlie, and Tripp, 1984) .

Note Taking Formats



Student Notes- Scaffolded Informal Outline: Effective Teaching Strategies
Summarizing and Note Taking

I. What It Is
Summarizing and note taking are strategies-

II. Summarizing

A. Effective summarizing-

1. Rule Based Strategy

B. Analyze the information-

1. Reciprocal teaching

C. Text structure

1. Summary frames
 - a. The Narrative Frame
 - b. The Topic-Restriction-Illustration Frame
 - c. The Definition Frame
 - d. The Argumentation Frame
 - e. The Problem/Solution Frame
 - f. The Conversation Frame

III. Note Taking

A. Student learning

1. Verbatim note taking
 - Work in progress
2. Study guide
 - Research
3. Note taking formats
 - a. Teacher-Prepared Notes
 - b. Informal Outline
 - c. Two Columns
 - d. Webbing
 - e. Combination Notes

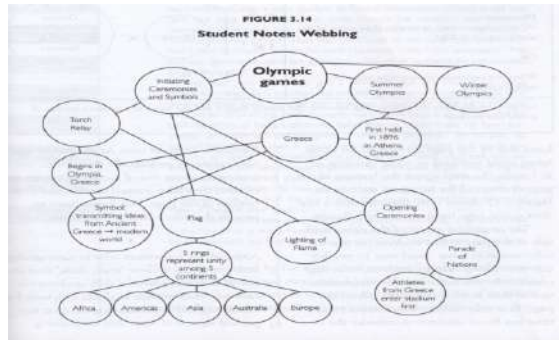


FIGURE 3.15
Student Notes: Combination Technique

<p>Inflation</p> <p>Increases . . . when the money supply is greater than value of nation's output of goods and services (G&S)</p> <p>OR</p> <p>When expenditures for food, goods, investment, government spending, and net exports are greater than the value of nation's output of G&S</p>	<p>\$1.10 ↑</p> <p>Money Supply > G&S</p> <p>\$1.00</p>
<p>Decreases . . . when money supply is smaller than value of nation's output of G&S</p> <p>OR</p> <p>When expenditures are less than value of nation's output</p>	<p>\$1.00 ↓</p> <p>Money < Output of Goods & Services</p> <p>\$.90</p>
<p>Inflation results from the relationship between the money supply and the value of a nation's output of goods and services.</p>	

Teacher-Prepared Notes

Presenter Prepared Notes: Effective Teaching Strategies Summarizing and Note Taking

I. What It Is

Summarizing and note taking are strategies in which large pieces of information or text are reduced to the main ideas and key points. Effective summarizing and note taking will lead to an increase in student learning.

II. Summarizing

- A. To effectively summarize, students must delete some information, substitute some information, and keep some information.
Rule Based Strategy (Keep, Delete, and Substitute) has students interact with the text, and highlight important information, delete trivial and redundant material, and substitute short phrases or words for a single idea.
- B. In order for students to effectively delete, substitute, and keep information, students must analyze the information.
 - 1. Reciprocal teaching begins with the generation of a summary statement, but the questioning, clarifying and predicting engages students in analyzing the information.
- C. If students are aware and familiar with the text structure they will be able to summarize the information with greater ease.
 - 1. Summary frames increase reading comprehension when students can effectively incorporate this tool.
 - a. The Narrative Frame
 - b. The Topic-Restriction-Illustration Frame
 - c. The Definition Frame
 - d. The Argumentation Frame
 - e. The Problem/Solution Frame
 - f. The Conversation Frame

III. Note Taking

- A. Note taking is a strategy related to summarizing that teachers use to support student learning.
 - 1. Verbatim note taking is, perhaps, the least effective way to take notes. Students do not engage in synthesizing of information when they simply copy notes.
 - 2. Notes are a work in progress. The review and revision of notes is a powerful activity, and may help students identify any misconceptions they have recorded in notes.
 - 3. Notes can be a study guide. "Research supports that there is a strong relationship between the amounts of information students take in notes and students' achievement on examinations" (Marzano, 44).
 - 4. Different students might prefer different note taking formats. Therefore it is important to incorporate and model more than one note-taking strategy in the classroom.
 - a. Teacher-Prepared Notes
 - b. Informal Outline
 - c. Two Column
 - d. Webbing
 - e. Combination Notes

Reference:

Marzano, Robert. Classroom Instruction that Works. Upper Saddle River, New Jersey: Pearson Education, 2005.

Informal Outline

FIGURE 3.13

Student Notes: Informal Outline

The Circulatory System

One of the transport systems of the body

3 functions:

- carries food and oxygen to cells
- carries away wastes from cells
- protects the body from disease

3 parts:

- heart
- blood vessels
- blood

One of the parts of the circulatory system is blood

4 parts:

- plasma
- red blood cells
- white blood cells
- platelets

The liquid part of the blood—plasma
yellowish in color and mostly water
contains food and wastes
makes up over half of the blood

One of the solid parts of the blood is the red
blood cells

pick up oxygen in the lungs and carry it to cells

pick up carbon dioxide from the cells and carry
it to the lungs

shaped like a doughnut without the hole—is
very small.

contains hemoglobin to help it do its job
about 5 million red blood cells in one drop of
blood

Second solid part of the blood is white blood cells
help the body fight infection

have no color and change shape as they move
fight infection by surrounding bacteria and di-
gesting it

Third solid part of the blood is platelets

stop bleeding by causing blood to thicken and
clot

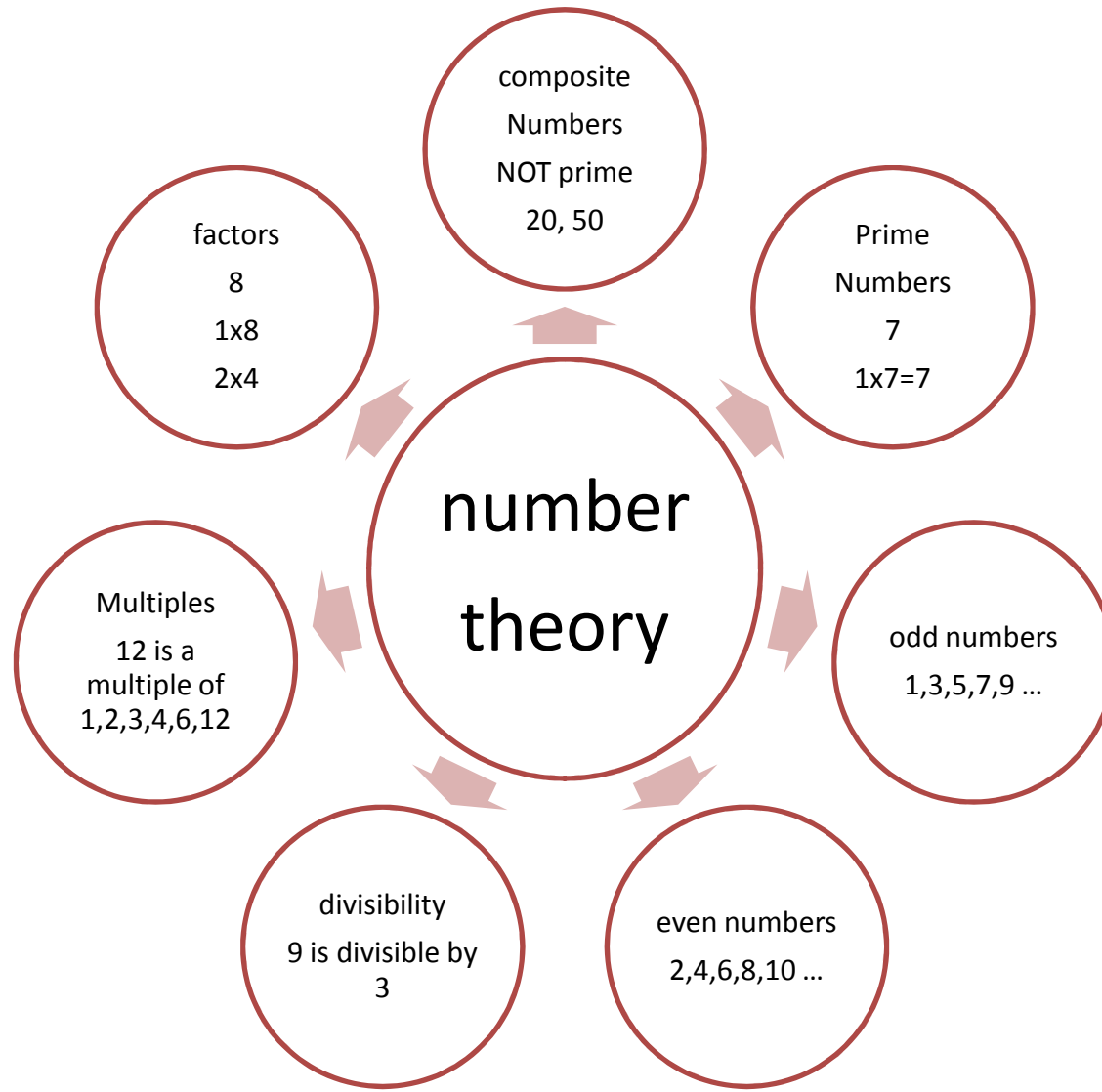
not whole cells, but parts of cells
have no color and are smaller than red blood
cells

Hemoglobin is a chemical in red blood cells
contains iron

makes the color of red blood cells
helps the red blood cells transport materials to
and from cells

Webbing Notes-Number Theory

Understands basic number theory concepts (e.g., prime and composite numbers, factors, multiples, odd and even numbers, divisibility) (Math, 3-5)



Combination Notes-Causes of Disease

pathogens

family history

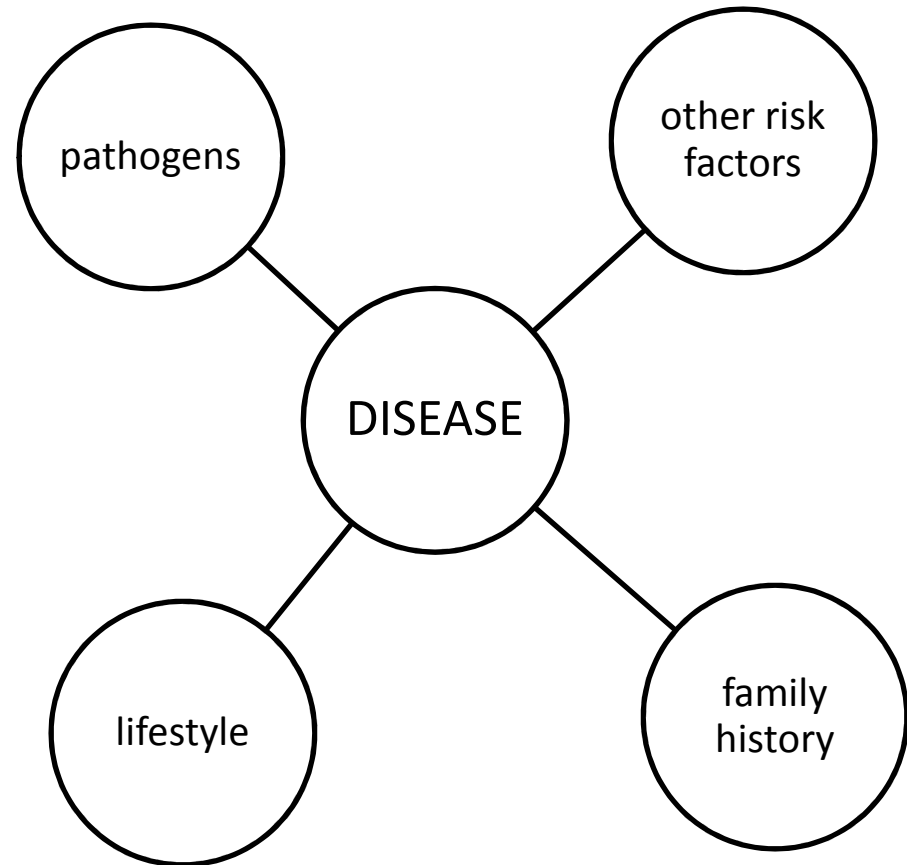
inherited genetic mutations
metabolic defects

lifestyle

smoking
lack of exercise
Drinking

other risk factors

hazardous job conditions
(coal, mining, radiation cleanup)
Medical treatments (radiation)



Summary: A number of factors can contribute to disease.

Example

Chapter 15: Waves transfer energy

A wave is a disturbance

- Transfers energy
- Started by a force
- Moves through a medium

Types of waves

- Transverse
- Longitudinal



When a slinky is stretched, the individual coils assume an equilibrium or rest position.



When the first coil of the slinky is repeatedly vibrated back and forth, a disturbance is created which travels through the slinky from one end to the other.



Slinky waves can be made by vibrating the first coil back and forth in either a horizontal or a vertical direction.

Combination Notes Example

Learning Goal: Understand Scientific Notation							
Scientific Notation: <ol style="list-style-type: none">1. Used to express very large or very small numbers2. Place decimal points to create a number between 1 and 103. Use powers of 10 to indicate original decimal point4. Moving to the right from the new point yields a positive exponent. Moving to the left from the new point yields a negative exponent.5. Count the number of spaces you move.	Picture, Symbol, Graphic, Examples <table><tbody><tr><td>32,000,000</td><td>0.00089</td></tr><tr><td>3.2000000</td><td>00008.9</td></tr><tr><td>3.2×10^7</td><td>8.9×10^{-4}</td></tr></tbody></table>	32,000,000	0.00089	3.2000000	00008.9	3.2×10^7	8.9×10^{-4}
32,000,000	0.00089						
3.2000000	00008.9						
3.2×10^7	8.9×10^{-4}						
Summary: Scientific notation expresses very large and small numbers. It includes moving the decimal point to create numbers between 1 and 10 and express the movement of the decimal as a power of 10.							

Combination Notes Example

Question(s):

1. Why should we teach summarizing and note taking?
2. What summarizing and note taking strategies can you incorporate into your classroom?

Key Vocabulary:

Summarizing

- Rule Based
- Summary Frames
- Reciprocal Teaching

Note Taking

- Teacher Prepared
- Informal Outline
- Webbing
- Two-Column
- Combination

Participant Notes:

Connect to old knowledge:

Summarize/Synthesize/Generalize:

How will I use this knowledge? Why is it important?

What questions do I still have?

Models and Examples

Name _____

Date _____

Lesson _____

Essential Question(s):

1. What are the three key reasons the United States entered WWII?
2. What was the economic situation in the United States just before it entered WWII, and what effect did the war have on the economy?
3. Based on the reading selection, who is becoming a very important political figure as events unfold?
4. List four central European countries and describe their feelings about war at their front door.

Key Vocabulary for today's lesson:

Axis
Allied
League of Nations
United Nations
Pearl Harbor
Eisenhower
supply/demand
manufacturing

Allied Powers

Axis Powers

Summarize ► Synthesize ► Generalize:

Certain countries aligned themselves within a framework of isolationism philosophy. Alliances made at the beginning of the war predicted the outcome of WWII. Ordinary Italian and French citizens had much in common. The Holocaust has become the all-encompassing WWII vision for many people. Europe would be very different today had Hitler never come to power.

Why is it important for me to remember this information? How will I remember this information?

It is important for me to remember the countries in the T-chart so that as I continue to study about WWII, I can immediately associate the country with its politics and view of the war and world.

S

Q

P

2

R

S

Title of Article or Chapter: _____

<p>Survey: (<i>Before you read.</i> What will this reading assignment be about? Look at titles and pictures)</p>	
<p>Question: (<i>Before you read.</i> Write 1-3 questions you may be able to answer from reading)</p>	<ol style="list-style-type: none">1.2.3.
<p>Predict: (<i>Before you read.</i> Can you predict 1-3 things we will learn?)</p>	<ol style="list-style-type: none">1.2.3.
<p>Read!</p>	(you don't have to write anything in this box)
<p>Respond (<i>After you Read.</i> Try to answer questions: modify, drop, and add)</p>	
<p>Summarize: (<i>After you Read</i>) Four Sentence Summary: Sentence 1: Main Idea (identify what was read, verb [<i>explains, lists, argues, describes, etc</i>], finish thought). . Sentences 2-4: D'REF: Details, Reasons, Examples, Facts</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Note Taking Rubric #1

4	The student's notes contain the relevant information presented in the learning experience and are organized in a way that captures the main ideas and any important supporting ideas. In addition, the format of the student's notes makes it easy to see relationships among the information.
3	The student's notes contain the relevant information presented in the learning experience and are organized in a way that captures the main ideas and any important supporting ideas.
2	The student's notes are missing some important information or are not organized in a way that captures the main ideas and any important supporting ideas.
1	The student's notes do not contain the relevant information presented in the learning experience .
0	Not enough information to make a judgment.

Note Taking Rubric #2

4	The student's notes contain the important information presented . The student organizes to show the main ideas and any important supporting ideas. The way the student organizes the notes makes it easy to see relationships among the information.
3	The student's notes contain the important information presented. The student organizes to show the main ideas and any important supporting ideas.
2	The student's notes are missing some important information . The student's notes do not show the main ideas.
1	The student's notes do not include the important information presented.
0	The student did not try to take notes.

Planning for Note Taking Worksheet

- What knowledge will students be learning?
- What partial or complete notes will I provide students?
- What note taking strategy will I ask students to use?
 - Informal outline
 - Web
 - Combination notes
 - Teacher-prepared notes
 - Reviewing their notes
- Do I need to set aside time to teach them the note-taking strategy that I want them to use?
- How will I teach them the strategy?
- How will I provide time to revise and review their notes?
- How will I monitor how well students are taking notes?
- What will I do to help students who are not taking notes effectively?