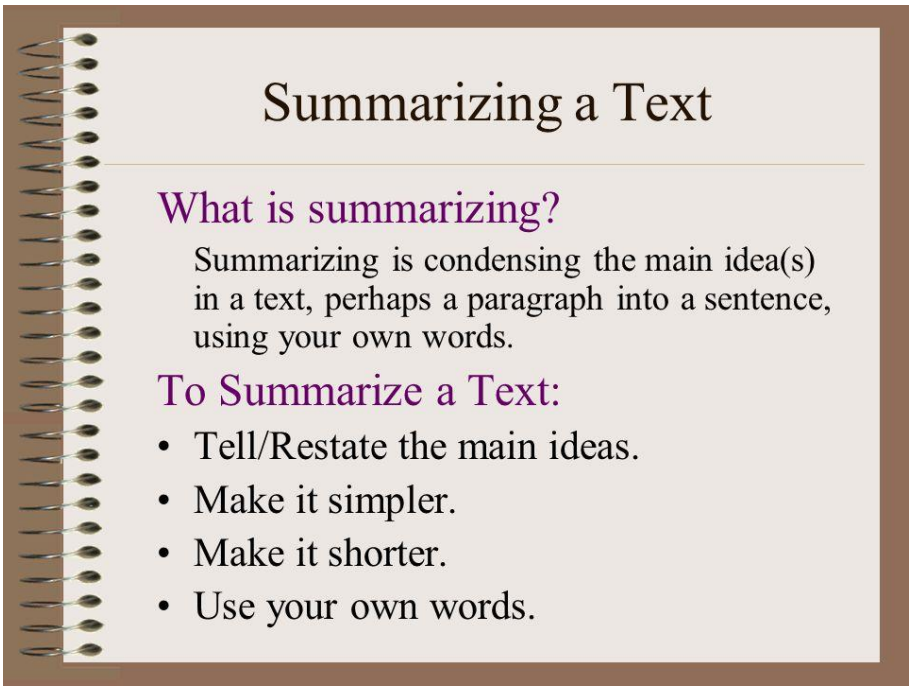
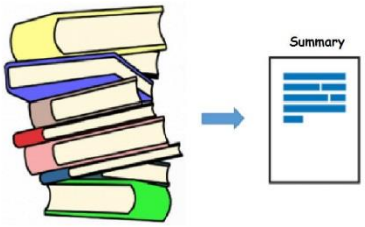
LESSON 8

COMPREHENSION STRATEGY: Summarizing





Read the following texts and write your summaries. Remember to write in Spanish using your own words.

TEXT 1

ENERGY MONITORING SOFTWARE

Life is improving for managers at the 2,700 stores of Sainsbury, one of the world's largest supermarket groups. A program from PA, a big software company, will make a boring job much simpler: collecting data about each shop's energy consumption, whether from refrigeration, lights or air conditioning. The automated data collection is part of Sainsbury's plan to reduce by 50% emissions of greenhouse gases from existing shops by 2019.Sainsbury and PA may well be pioneers, but they are not alone. While governments discuss levels of carbon emissions, many companies have already started to

make reductions, or are at least preparing to – leading to more and more software firms offering products to help. **If predictions were correct, the market for carbon-management software could soon become as large as those for other important business applications such as enterprise application software (EAS) programs, a $7 billion market last year.**

Many companies have measured energy consumption for some time in an attempt to reduce running costs. Other firms have tracked emissions of different types in order to comply with pollution regulations. In recent times, public pressure has led to more companies publishing emissions data in their annual reports or to organizations like the Carbon Monitoring Project. However, most firms will need to upgrade from the basic tools, such as spreadsheets, they have been using.

Things are changing, in spite of the recession, says Jim Scarfe, CEO of CarbonReduct, a consultancy. Increased energy costs and new regulations are all pushing companies to monitor their emissions and do so with appropriate software, he states. In the USA, for example, the Carbon Reduction Plan will come into force next year. Among other things, it requires firms that use more than 8,000 megawatt-hours of electricity per annum to evaluate and report the energy they consume.

Expecting an increase in demand, many software-publishers have moved into the market, mostly with internet-based services. In a recent survey SRP Research, another consultancy, listed no fewer than 183 suppliers. Some emphasize reporting, others compliance and still others improving business processes. There are well-established companies, such as EnergySoft and LMG. Many start-ups, such as CarbonModel and GreenData, have appeared. Even Large software firms like Oracle and IBM have also moved into the market.

For the time being, the needs of most firms are simple: making sure that energy data is collected and can be audited. But in the years ahead, this will change, predicts Susanna Sierra of SRP. Companies will need software that collects energy data automatically, while helping them to find the best ways to reduce emissions and allowing them to manage other resources, such as water.

Scarfe and Sierra both expect that Oracle and SAP, which already dominate most types of business software, will control the market in this area, too, because it is a good match for their other products. These giants also have the resources to buy the best technology. In June SAP purchased Green Standards, a start-up. Oracle is thought to be planning a similar purchase soon. But they have other rivals. LMG has been buying companies selling environmental software. Some expect great things from X8, a start-up founded by Jana Novic, who pioneered EAS software.

All this interest gives an idea of how important the business of monitoring environmental performance is likely to become. Scarfe recently suggested that in time it could even be as big a market as financial accounting.

True or False

1. Most companies now report their carbon emissions in their annual statements.
2. The Carbon Reduction Plan is currently working to reduce carbon emissions.
3. There now seems to be a gap in the market for internet-based carbon-measurement software.
4. Future software is likely to measure a wider range of a company's resources.
5. The market will probably be made up of mainly start-up businesses.

Write key words.

_____ _____ _____ _____ _____

Write your summary.

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TEXT 2

ROBOTS AT WORK

A) The newspaper production process has come a long way from the old days when the paper was written, edited, typeset and ultimately printed in one building with the journalists working on the upper floors and the printing presses going on the ground floor. These days the editor, subeditors and journalists who put the paper together are likely to find themselves in a totally different building or maybe even in a different city. This is the situation which now prevails in Sydney. The daily paper is compiled at the editorial headquarters, known as the prepress center, in the heart of the city, but printed far away in the suburbs at the printing center. Here human beings are in the minority as much of the work is done by automated machines controlled by computers.

B) Once the finished newspaper has been created for the next morning's edition, all the pages are transmitted electronically from the prepress center to the printing center. The system of transmission is an update on the sophisticated page facsimile system already in use on many other newspapers. An image setter at the printing center delivers the pages as film. Each page takes less than a minute to produce, although for color pages four versions, once each for black, cyan, magenta and yellow are sent. The pages are then processed into photographic negatives and the film is used to produce aluminum printing plates ready for the presses.

C) A procession of automated vehicles is busy at the new printing center where the Sydney Morning Herald is printed each day. With lights flashing and warning horns honking, the robots (to give them their correct name, the LGVs or laser guided vehicles) look for all the world like enthusiastic machines from a science fiction movie, as they follow their own random paths around the plant busily getting on with their jobs. Automation of this kind is now standard in all modern newspaper plants. **The robots can detect unauthorized personnel and alert security staff immediately if they find an "intruder"**; not surprisingly, tall tales are already being told about the machines starting to take on personalities of their own.

D) The robots' principal job, however, is to shift the newsprint (the printing paper) that arrives at the plant in huge reels and emerges at the other end sometime later as newspapers. Once the size of the day's paper and the publishing order are determined at head office, the information is punched into the computer and the LGVs are programmed to go about their work. The LGVs collect the appropriate size paper reels and take them where they have to go. When the press needs another reel its computer alerts the LGV system. The Sydney LGVs move busily around the press room fulfilling their two key functions to collect reels of newsprint either from the reel stripping stations, or from the racked supplies in the newsprint storage area. At the stripping station the tough wrapping that helps to protect a reel of paper from rough handling is removed. Any damaged paper is peeled off and the reel is then weighed.

E) Then one of the four paster robots moves in. Specifically designed for the job, it trims the paper neatly and prepares the reel for the press. **Were they to require a reel, it might be loaded directly onto the press**; if it were not needed immediately, an LGV would take it to the storage area. When the press computer calls for a reel, an LGV takes it to the reel loading area of the presses. It lifts the reel into the loading position and places it in the correct spot with complete accuracy. As each reel is used up, the press drops the heavy cardboard core into a waste bin. When the bin is full, another LGV collects it and deposits the cores into a shredder for recycling.

F) The LGVs move at walking speed**. Should anyone step in front of one or get too close, sensors stop the vehicle until the path is clear.** The company has chosen a laser guide function system for the vehicles because, as the project development manager says "The beauty of it is that **if you want to change the routes, you can work out a new route on your computer and lay it down for them to follow**". When an LGV's batteries run low, it will take itself off line and go to the nearest battery maintenance point for replacement batteries. And all this is achieved with absolute minimum human input and a much reduced risk of injury to people working in the printing centers.

G) The question newspaper workers must now ask, however is, "how long will it be before the robots are writing the newspapers as well as running the printing center, churning out the latest edition every morning?"

Match the titles to the correct paragraphs.

1. Robots working together
2. Preparing LGVs for takeover
3. Looking ahead
4. The LGVs' main functions
5. Split location for newspaper production
6. Newspapers superseded by technology
7. Getting the newspaper to the printing center
8. Controlling the robots
9. Beware of robots!

A
B
C
D
E
F
G

Write key words.

_____ _____ _____ _____ _____

Write your summary.

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GRAMMAR TOPIC: Conditional Sentences

Conditional Sentences: Sentences that express one thing contingent on something else, e.g. "If it rains, the picnic will be cancelled". They are so called because the impact of the main clause of the sentence is conditional on the dependent clause.

ZERO (a fact)

0 If I have money, I spend it.

Present simple, Present simple

FIRST (possible)

1 If I have money, I'll spend it.

Present simple, will

SECOND (imaginary)

2 If I had money, I would spend it.

Past simple, would

THIRD (impossible - in the PAST)

3 If I had had money, I would have spent it.

Past Perfect, would + have+ 3rd form

Five alternatives to 'if'

1. **As long as...**
   As long as we go somewhere hot, I'll travel with you.
2. **Suppose...**
   Suppose we went to America - would it be safe?
3. **Unless...**
   Unless I get the time off work, I won't be able to go.
4. **Providing / provided...**
   Providing I get the time off work, I'll go.
5. **On (the) condition that...**
   On the condition that you pay me extra, I'll work over the holiday.

Which is the types and function of the following conditional sentences from the texts? The first one has been done for you. Use the chart above to help you.

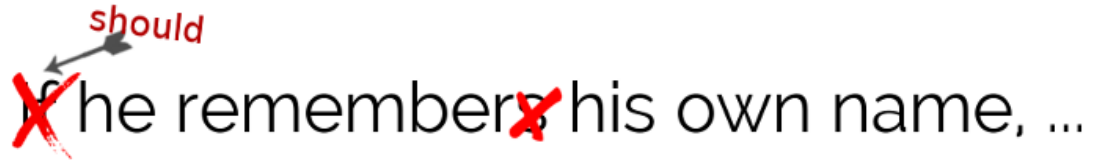
CONDITIONAL SENTENCES IN THE TEXT	TYPE	FUNCTION
If predictions were correct, the market for carbon-management software could soon become as large as those for other important business applications (…)	2	*Situación imaginaria en el presente*
The robots can detect unauthorized personnel and alert security staff immediately if they find an "intruder" (…)		
(…) if you want to change the routes, you can work out a new route on your computer and lay it down for them to follow (…)		

More Conditional Sentences (not in the texts)

CONDITIONAL SENTENCES IN THE TEXT	TYPE	FUNCTION
I would go swimming every week if I knew how to swim properly.		
If I had caught that plane to New York, I would have met her.		
If we lived in China, we would speak Cantonese or Pekingese.		
I would have bought my house a long time ago if the prices had been a bit lower.		
Do you think they will like our teacher if they are in our class?		
I would have called you earlier if I had found my phone card.		
Brendan will be depressed if he fails his classes.		
If Andy had had the salmon, he would have liked his meal better.		

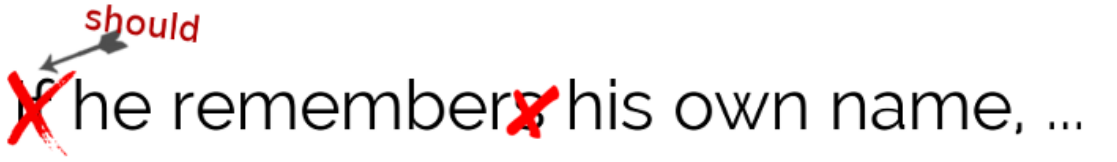
GRAMMAR TOPIC 2: Inversion of Conditional Sentences

INVERSION OF THE ZERO CONDITIONAL



Should he remember his own name, ...

INVERSION OF THE FIRST CONDITIONAL



Should he remember his own name, ...

INVERSION OF THE SECOND CONDITIONAL

Were he to push that button, ...

INVERSION OF THIRD CONDITIONAL

Which is the types and function of the following conditional sentences from the texts? Translate them. Use the chart above to help you.

Example from the text: *Were they require a reel, it might be loaded directly onto the press (...)*

Translation: .....

Type: .....

Function: .....

Example from the text: *Should anyone step in front of one or get too close, sensors stop the vehicle (...)*

Translation: .....

Type: .....

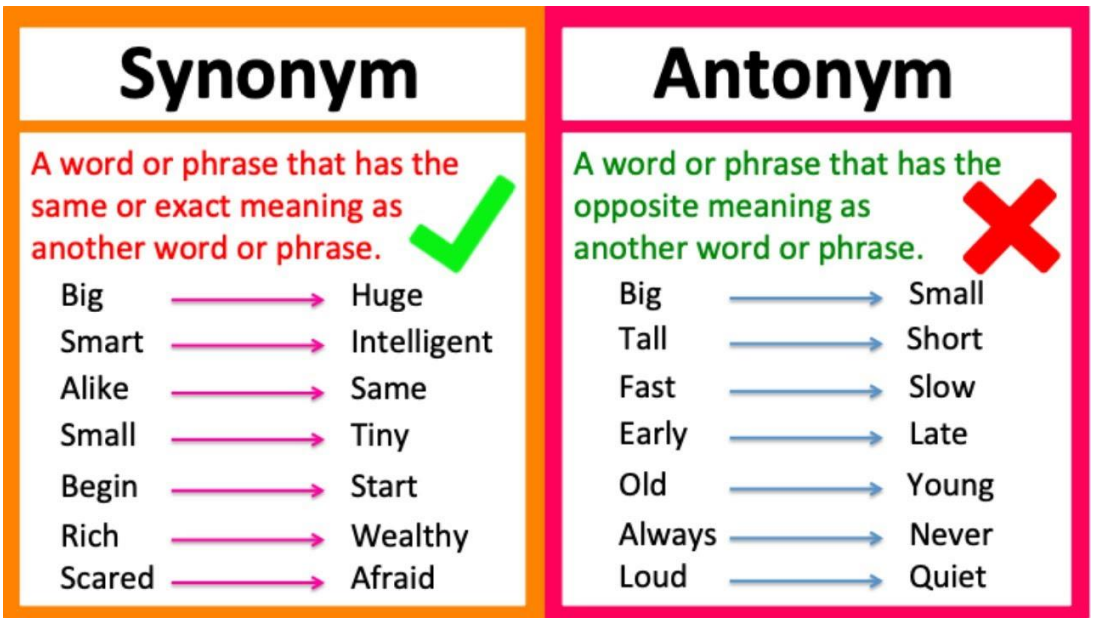
Function: .....

More Sentences (not in the text)

CONDITIONAL SENTENCES IN THE TEXT	TYPE	FUNCTION
Had I known about the draft beer, I would have bought it instantly.		
Had Ben spoken the truth, he would not have faced so many difficulties.		

CONDITIONAL SENTENCES IN THE TEXT	TYPE	FUNCTION
Should you want to be thin, you should eat food that has low sugar and salt.		
Were children not to digest what they eat, they usually would have stomachache.		
Should you want excellent quality meat, you must buy only from this shop.		
Had I come here earlier, I could have helped you.		
Were Peter with you, he could have shown you the way to the shop.		
Were he to get up earlier, he would not miss his classes.		

REVISION TOPIC 1: Synonymy & Antonymy



Read the following passages and choose the best answer.

Passage 1

According to sociologists, there are several different ways in which a person may become recognized as the leader of a social group in the United States. In the family, traditional cultural patterns confer leadership on one or both of the parents. In other cases, such as friendship groups, one or more persons may gradually emerge as leaders, although there is no formal process of selection. In larger groups, leaders are usually chosen formally through election or recruitment.

Although leaders are often thought to be people with unusual personal ability, decades of research have failed to produce consistent evidence that there is any category of "natural leaders." It seems that there is no set of personal qualities that all leaders have in common; rather, virtually any person will be recognized as a leader if the person has qualities that meet the needs of that particular group.

Furthermore, although it is commonly supposed that social groups have a single leader, research suggests that there are typically two different leadership roles that are held by different individuals. Instrumental leadership is leadership that emphasizes the completion of tasks by a social group. Group members look to instrumental leaders to "get things" done." Expressive leadership, on the other hand, is leadership that emphasizes the **collective** well-being of a social group's member. Expressive leader are less concerned with the overall goals of the group than with providing emotional support to group members and attempting to minimize tension and conflict among them. Group members expect expressive leaders to maintain stable relationships within the group and provide support to individual members.

Instrumental leaders are likely to have a rather secondary relationship to other group members. They give orders and may discipline group members who inhibit attainment of the group's goals. Expressive leaders cultivate a more personal or primary relationship to others in the group. They offer sympathy when someone experiences difficulties or is subjected to discipline, are quick to lighten a serious moment with humor ,and try to **resolve** issues that threaten to divide the group. As the differences in these two roles suggest, expressive leaders generally receive more personal affection from group members; instrumental leaders, if they are successful in promoting group goals, may enjoy a remote distant respect.

The word "collective" highlighted in the text is closest in meaning to...

a. necessary.
b. typical.
c. group.
d. particular.

The word "resolve" highlighted in the text is closest in meaning to...

a. avoid repeating.
b. talk about.
c. avoid thinking about.
d. find a solution for.

Passage 2

Researchers in the field of psychology have found that one of the best ways to make an important decision, such as choosing a university to attend or a business to invest in, involves the utilization of a decision worksheet. Psychologists who study optimization compare the actual decisions made by people to theoretical ideal decisions to see how similar they are. Proponents of the worksheet procedure believe that it will yield optimal, that is, the best decisions. Although there are several variations on the exact format that worksheets can take, they are all similar in their **essential** aspects.

Worksheets require defining the problem in a clear and concise way and then listing all possible solutions to the problem. Next, the **pertinent** considerations that will be affected by each decision are listed, and the relative importance of each consideration or consequence is determined. Each consideration is assigned a numerical value to reflect its relative importance. A decision is mathematically calculated by adding these values together. The alternative with the highest number of points emerges as the best decision.

Since most important problems are multifaceted, there are several alternatives to choose from, each with unique advantages and disadvantages. One of the benefits of a pencil and paper decision-making procedure is that it permits people to deal with more variables than their minds can generally comprehend and remember. On the average, people can keep about seven ideas in their minds at once. A worksheet can be especially useful when the decision involves a large number of variables with complex relationships. A realistic example for many college students is the question "What will I do after graduation?" A graduate might seek a position that offers specialized training, pursue an advanced degree, or travel abroad for a year.

A decision-making worksheet begins with a **succinct** statement of the problem that will also help to narrow it. It is important to be clear about the distinction between long-range and immediate goals because long-range goals often involve a different decision than short-range ones. Focusing on long-range goals, a graduating student might **revise** the question above to "What will I do after graduation that will lead to a successful career?"

The word "essential" highlighted in the text is closest in meaning to...

a. introductory.
b. changeable.
c. beneficial.
d. fundamental.

The word "pertinent" highlighted in the text is closest in meaning to...

a. relevant..
b. preceding.
c. insightful.
d. responsive.

The word "succinct" highlighted in the text is closest in meaning to...

a. creative.
b. satisfactory.
c. personal.
d. concise.

Passage 3

Glass is a remarkable substance made from the simplest raw materials. It can be colored or colorless, monochrome or polychrome, transparent, translucent, or opaque. It is lightweight impermeable to liquids, readily cleaned and reused, **durable** yet fragile, and often very beautiful Glass can be decorated in multiple ways and its optical properties are exceptional. In all its myriad forms - as table ware, containers, in architecture and design - glass represents a major achievement in the history of technological developments.

Since the Bronze Age about 3,000 B.C., glass has been used for making various kinds of objects. It was first made from a mixture of silica, line and an alkali such as soda or potash, and these remained the basic ingredients of glass until the development of lead glass in the seventeenth century. When heated, the mixture becomes soft and malleable and can be formed by various techniques into a vast array of shapes and sizes. The homogeneous mass thus formed by melting then cools to create glass, but in contrast to most materials formed in this way (metals, for instance), glass lacks the crystalline structure normally associated with solids, and instead retains the random molecular structure of a liquid. In effect, as molten glass cools, it progressively stiffens until rigid, but does so without setting up a network of interlocking crystals **customarily** associated with that process. This is why glass shatters so easily when dealt a blow. Why glass deteriorates over time, especially when **exposed to** moisture, and why glassware must be slowly reheated and uniformly cooled after manufacture to release internal stresses **induced** by uneven cooling.

Another unusual feature of glass is the manner in which its viscosity changes as it turns from a cold substance into a hot, ductile liquid. Unlike metals that flow or "freeze" at specific temperatures glass progressively softens as the temperature rises, going through varying stages of malleability until it flows like a thick syrup. Each stage of malleability allows the glass to be manipulated into various forms, by different techniques, and if suddenly cooled the object retains the shape achieved at that point.

Glass is thus amenable to a greater number of heat-forming techniques than most other materials.

The word "durable"' highlighted in the text is closest in meaning to...

a. lasting.
b. delicate.
c. heavy.
d. plain.

The word "customarily" highlighted in the text is closest in meaning to...

a. naturally.
b. necessarily.
c. usually.
d. certainly.

The word "exposed to" highlighted in the text is closest in meaning to...

a. hardened by.
b. chilled with.
c. subjected to.
d. deprived of.

The word "induced" highlighted in the text is closest in meaning to...

a. joined.

b. missed.
c. caused.
d. lost.

Passage 4

A seventeenth-century theory of burning proposed that anything that burns must contain material that the theorists called "phlogiston". Burning was explained as the release of phlogiston from the combustible material to the air. Air was thought essential, since it had to provide a home for the released phlogiston. There would be a limit to the phlogiston transfer, since a given volume of air could absorb only so much phlogiston. When the air had become saturated, no additional amounts of phlogiston could leave the combustible substance, and the burning would stop. Burning would also stop when the combustible substance was emptied of all its phlogiston. Although the phlogiston theory was self-consistent, it was awkward because it required that imaginative, even mysterious, properties be **ascribed to** phlogiston.

Phlogiston was elusive. No one had ever isolated it and experimentally determined its properties. At times it seemed to show a negative weight: the residue left after burning weighed more than the material before burning. This was true, for example, when magnesium burned. Sometimes phlogiston seemed to show a positive weight: when, for example, wood burned, the ash weighed less than the starting material. And since so little residue was left when alcohol, kerosene, or high-grade coal burned, these obviously different materials were thought to be pure or nearly pure phlogiston.

In the eighteenth century, Antoine Lavoisier, on the basis of careful experimentation, was led to propose a different theory of burning, one that required a **constituent** of air-later shown to be oxygen-for combustion. **Since** the weight of the oxygen is always added, the weight of the products of combustion, including the evolved gases, would always be greater than the weight of the starting material.

Lavoisier's interpretation was more reasonable and straightforward than that of the phlogiston theorists. The phlogiston theory, always clumsy, became suspect, eventually fell into scientific disrepute, and was replaced by new ideas.

The phrase "ascribed to" highlighted in the text is closest in meaning to...

a. analyzed and isolated in.
b. returned to their original condition in.
c. assumed to be true of.
d. diagrammed with.

The word "constituent" highlighted in the text is closest in meaning to...

a. component.
b. opposite.
c. principle.
d. temperature.

The word "Since" highlighted in the text is closest in meaning to...

a. later.
b. because.

c. during.
d. although.

Passage 5

The word laser was **coined** as an acronym for Light Amplification by the Stimulated Emission of Radiation. Ordinary light, from the Sun or a light bulb, is emitted spontaneously, when atoms or molecules get rid of excess energy by themselves, without any outside intervention. Stimulated emission is different because it occurs when an atom or molecule holding onto excess energy has been stimulated to emit it as light.

Albert Einstein was the first to suggest the existence of stimulated emission in a paper published in 1917. However, for many years physicists thought that atoms and molecules always were much more likely to emit light spontaneously and that stimulated emission thus always would be much weaker. It was not until after the Second World War that physicists began trying to make stimulated emission dominate. They sought ways by which one atom or molecule could stimulate many other to emit light, amplifying it to much higher powers.

The first to succeed was Charles H.Townes, then at Colombia University in New York. Instead of working with light, however, he worked with microwaves, which have a much longer wavelength, and built a device he called a "maser" for Microwave Amplification by the Stimulated Emission of Radiation. Although he thought of the key idea in 1951, the first maser was not completed until a couple of years later. Before long, many other physicists were building masers and trying to discover how to produce stimulated emission at even shorter wavelength.

The key concepts emerged about 1957. Townes and Arthur Schawlow, then at Bell Telephone Laboratories, wrote a long paper **outlining** the conditions needed to amplify stimulated emission of visible light waves. At about the same time, similar ideas crystallized in the mind of Gordon Gould, then a 37-year-old graduate student at Columbia, who wrote them down in a series of notebooks. Townes and Schawlow published their ideas in a scientific journal, Physical Review Letter, but Gould filed a patent application. Three decades later, people still argue about who deserves the credit for the concept of the laser.

The word "coined" highlighted in the text could be replaced by...

a. created.
b. mentioned.
c. understood.
d. discovered.

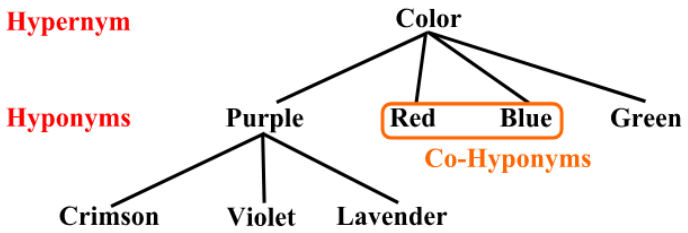
The word "outlining" highlighted in the text is closest in meaning to...

a. assigning.
b. studying.
c. checking.
d. summarizing.

REVISION TOPIC 2: Hyponymy & Hypernymy

Hyponym or subordinate: A word whose meaning is included in the meaning of another word. Eg. "Horse" is a hyponym of "animal".

Hypernym or superordinate: A word whose meaning includes a group of other words. Eg. The first hypernyms for dog that come to mind would be "animal" or "pet".



Match the hyponyms to their correct hypernyms

emerald	family
icecream	vehicle
cyan	blue
rumba	music
knife	game
car	cat
stepmother	shape
roulette	gemstone
round	dance
tiger	dessert
opera	utensil

Answers will be available next week!