A paragraph is a group of related sentences that develop an idea. In nearly every paragraph, there is one idea which more important than the others. This idea is called the main idea and it is usually found at the beginning of the text. Sometimes, finding main ideas might be enough but in much of our studying we need to grasp details. Details frequently grow out of the main idea. Details might be major or minor (examples), depending on their importance.

**Exercise**

Practise finding the main idea, major details and minor details after reading the text below:

1. Science is practiced in universities and other scientific institutes as well as in the field: as such it is a solid vocation in academia, but is also practiced by amateurs, who typically engage in the observational part of science.

2. Workers in corporate research laboratories also practice science, although their results are often deemed trade secrets and not published in public journals.

3. Corporate and university scientists often cooperate with the university scientists focusing on basic research and the corporate scientists applying their findings to a specific technology of interest to the company. Although generally this method of cooperation has benefited both the advancement of science and the corporations, it has also in some cases lead to ethical problems, when the results arrived at in the course of research have had a negative aspect for the financing corporation. A classical example is the history of health research related to smoking.

4. The methods of science are also practiced in many places to achieve specific goals. For example: (1) quality control in manufacturing facilities (such as a microbiologist in a cheese factory ensures that cultures contain the proper species of bacteria): (2) obtaining and processing crime scene evidence (forensics): (3) monitoring compliance with environmental laws: (4) performing medical tests to help physicians evaluate the health of their patients: or (5) investigating the causes of a disaster (such as a bridge collapse or airline crash).

<table>
<thead>
<tr>
<th>Main idea</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Major details</td>
<td>-</td>
</tr>
<tr>
<td>Minor details</td>
<td>-</td>
</tr>
</tbody>
</table>
Science refers to the system of acquiring knowledge – based on empiricism, experimentation, and methodological naturalism. The term science also refers to the organized body of knowledge humans have gained by such research.

Most scientists maintain that scientific investigation must adhere to the scientific method, a process for evaluating empirical knowledge which explains observable events in nature as a result of natural causes, rejecting supernatural notions. Less formally, the word science often describes any systematic field of study or the knowledge gained from it. Particular specialized studies that make use of empirical methods are often referred to as sciences as well. This article concentrates on the first. (The first refers back to a process.)
Exercise
Using the sample paragraph as a model, find what the words in bold typeface refer to:

1. Fields of science are commonly classified along two major lines: Natural sciences, which study the natural phenomena including biology; and Social sciences, which are the systematic study of human behavior and society.

4. Mathematics has both similarities and differences compared to other fields of science, and is sometimes included within a third, separate classification, called formal science. Mathematics is similar to other sciences because it is a rigorous, structured study (of topics such as quantity, structure, space, and change). It is different because of its method of arriving at its results. Mathematics as a whole is vital to the sciences — indeed major advances in them have often led to major advances in other sciences. Certain aspects of mathematics are indispensable for the formation of hypotheses, theories and laws in discovering and describing how things work (the former) and how people think and act (the latter).

15. Science as defined above is sometimes termed pure science to differentiate it from applied science, the application of research to human needs.

<table>
<thead>
<tr>
<th>Transitional marker</th>
<th>Line</th>
<th>Refers to</th>
</tr>
</thead>
<tbody>
<tr>
<td>…which</td>
<td>line 2</td>
<td></td>
</tr>
<tr>
<td>…which</td>
<td>line 3</td>
<td></td>
</tr>
<tr>
<td>…both</td>
<td>line 4</td>
<td></td>
</tr>
<tr>
<td>…it</td>
<td>line 7</td>
<td></td>
</tr>
<tr>
<td>…it</td>
<td>line 8</td>
<td></td>
</tr>
<tr>
<td>…its</td>
<td>line 8</td>
<td></td>
</tr>
<tr>
<td>…its</td>
<td>line 9</td>
<td></td>
</tr>
<tr>
<td>…them</td>
<td>line 10</td>
<td></td>
</tr>
<tr>
<td>…the former</td>
<td>line 13</td>
<td></td>
</tr>
<tr>
<td>…the latter</td>
<td>line 14</td>
<td></td>
</tr>
<tr>
<td>…it</td>
<td>line 16</td>
<td></td>
</tr>
</tbody>
</table>
When a person is reading, he or she will come across unfamiliar words. It is sometimes possible to guess the meaning of those words if we understand the way words in English are generally formed.

An English word can be divided into three parts: a prefix, a stem and a suffix. *Pre-* means “before”; a *prefix*, thus, is what comes before the stem. A *suffix* is what is attached to the end of the stem. Both prefixes and suffixes are referred to as *affixes*.

Prefixes usually change the meaning of the word; for example, *un-* changes the word to the negative. Suffixes change the word from one part of speech to another; for example, *-ly* added to the adjective *logical* gives the adverb *logically*.

The following are some of the most common *suffixes*:

<table>
<thead>
<tr>
<th>Nouns</th>
<th>Verbs</th>
<th>Adjectives</th>
<th>Adverb</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ance</td>
<td>-ize</td>
<td>-able</td>
<td>-ly</td>
</tr>
<tr>
<td>-ence</td>
<td>-ate</td>
<td>-ible</td>
<td></td>
</tr>
<tr>
<td>- or</td>
<td>-fy</td>
<td>-less</td>
<td></td>
</tr>
<tr>
<td>-er</td>
<td>-en</td>
<td>-ic</td>
<td></td>
</tr>
<tr>
<td>-ist</td>
<td>-ify</td>
<td>-ical</td>
<td></td>
</tr>
<tr>
<td>-ness</td>
<td></td>
<td>-ish</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-ive</td>
<td></td>
</tr>
</tbody>
</table>

**Exercise**

Read the following extract and underline all the suffixes. Then try to find out which parts of speech the words are.

1. Regarding its etymology, the word science comes from the Latin word, *scientia*, which means knowledge. Beginning in the "Middle ages" and until the "Age of Enlightenment," the word science (or its Latin cognate) meant any systematic or exact recorded knowledge. Science therefore had the same sort of very broad meaning that philosophy had at that time. It should be noted that in some languages (including French, Spanish, Portuguese and Italian), the word corresponding to "science" still carries this meaning.
2. Centuries ago there was a distinction between "natural philosophy" (a term originally coined by Aristotle and put into use during the period from about 1600-1800 CE), and "moral philosophy" (at that time referring to the studies of human behavior and interaction). In the 1800’s "natural philosophy" gradually gave way to the term "natural science." "Natural science" was gradually narrowed down to its current use, which typically includes physical sciences and biological sciences. The social sciences, originally "moral philosophy," are today typically included in under the auspices of science as well, to the extent that these disciplines also use empirical methods. "Moral philosophy" today refers specifically to the branch of philosophy called "ethics."
In “Language in Context (2)” we have studied how suffixes change the part of speech of a word. Some prefixes, their usual meanings and how they change the meaning of English words, are reproduced below:

<table>
<thead>
<tr>
<th>Negative/Positive</th>
<th>Size</th>
<th>Location</th>
<th>Time/Order</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>un-</td>
<td>semi-</td>
<td>inter-</td>
<td>pre-</td>
<td>mono-</td>
</tr>
<tr>
<td>non-</td>
<td>mini-</td>
<td>super-</td>
<td>ante-</td>
<td>bi-</td>
</tr>
<tr>
<td>in-</td>
<td></td>
<td>trans-</td>
<td>fore-</td>
<td>hex-</td>
</tr>
<tr>
<td>dis-</td>
<td></td>
<td>ex-</td>
<td>post-</td>
<td>oct-</td>
</tr>
<tr>
<td>re-</td>
<td></td>
<td>extra-</td>
<td></td>
<td>multi-</td>
</tr>
</tbody>
</table>

**Exercise**

Read the following extract and underline all the prefixes and suffixes. Then try to find out what the prefixes mean.

*The Scientific Method*

1. The terms model, hypothesis, theory, and law have different, more specific meanings in science than in colloquial speech. Scientists use model to refer to a description of something, specifically one which can be used to make predictions that can be tested by experiment or observation. A hypothesis is a contention that has been neither well supported nor ruled out by experiment yet. A theory, in the context of science, is a logically self-consistent model or framework for describing the behavior of a certain natural phenomena. A theory typically describes the behavior of much broader sets of phenomena than a hypothesis — commonly, a large number of hypotheses may be logically bound together by a single theory. A physical law or law of nature is a scientific generalization based on a sufficiently large number of empirical observations that it is taken as fully verified.
2. The scientific method provides an objective process to find solutions to problems in a number of scientific and technological fields. Often scientists have a preference for one outcome over another, and it is important that this preference does not bias their interpretation. The scientific method attempts to minimize the influence of a scientist’s bias on the outcome of an experiment. This can be achieved by correct experimental design, and thorough peer review of experimental design as well as conclusions of a study.
3. Scientists never claim absolute knowledge. Unlike a mathematical proof, a proven scientific theory is always open to falsification, if new evidence is presented. Even the most basic and fundamental theories may turn out to be imperfect if new observations are inconsistent with them. Critical to this process is making every relevant aspect of research publicly available, which permits peer review of published results, and also allows ongoing review and repeating of experiments and observations by multiple researchers operating independently of one another. Only by fulfilling these expectations can it be determined how reliable the experimental results are for potential use by others.
Several are the ways of showing that similarities or differences exist between or amongst things:

<table>
<thead>
<tr>
<th>FORMATION</th>
<th>ABSOLUTE ADJECTIVE/ADVERB</th>
<th>COMPARATIVE ADJECTIVE/ADVERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. By adding –er –est to words of one syllable.</td>
<td>➢ new</td>
<td>➢ newer/ newest</td>
</tr>
<tr>
<td>2. By placing the words more most in front of adjectives or adverbs with three syllables.</td>
<td>➢ convenient</td>
<td>➢ more/ most convenient</td>
</tr>
<tr>
<td>3. Words with two syllables may be formed like 1 or 2 above: they will add the ending –er –est if they end in –y, -ly, -ow, -le, -er. Most of the remaining ones take more most in front of them.</td>
<td>➢ funny</td>
<td>➢ funnier/ funniest</td>
</tr>
<tr>
<td>4. Some common two-syllable adjectives can have either type of formation.</td>
<td>➢ common</td>
<td>➢ commoner/commonest</td>
</tr>
<tr>
<td>5. There is a small number of adjectives and adverbs that form the comparative and superlative using a different stem.</td>
<td>➢ bad</td>
<td>➢ worse/worst</td>
</tr>
</tbody>
</table>

### Use in sentences

<table>
<thead>
<tr>
<th>Use in sentences</th>
<th>Words and constructions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalence</td>
<td>As…as/ similar to/ each/ either/ all/ both/ alike</td>
<td>Mathematics has both similarities and differences compared to other fields of science…</td>
</tr>
<tr>
<td>Non-equivalence</td>
<td>- not as…as - less… than - greater/wider/ more wonderful… than</td>
<td>Learning mathematics is not as difficult as it seems. Television is less interesting than books. The concept of Science is wider than that of Natural Sciences.</td>
</tr>
<tr>
<td>Parallel increase</td>
<td>The (word+er) the…the more/ The (word+er) the…the less</td>
<td>The smaller the problem, the less changeling it is for the scientists.</td>
</tr>
</tbody>
</table>
Exercise
Read this extract about “Scientific literature” and underline all the sentences or parts of sentences that express a comparison. Identify if they show equivalence, non-equivalence or parallel increase and by which means.

1 Science has become so pervasive in modern societies that it is generally perceived
2 a necessity to communicate the achievements, news, and dreams of scientists to a
3 wider populace. This need is fulfilled by an enormous range of scientific literature.
4 While scientific journals communicate and document the results of research
5 carried out in universities and various other institutions, and new discoveries in
6 various fields of science, science magazines cater to the needs of a wider
7 readership. Besides these, science books and magazines on science fiction ignite
8 the interest of many more people. A significant fraction of literature in science is
9 also available on the World Wide Web: most reputed journals and newsmagazines
10 have their own websites. Also, more and more people are being attracted towards
11 the vocation of science popularization and science journalism.
When reading it is important to recognize and understand the relationship in which sentences and groups of sentences combine to present information. This information may be linked my means of a connective word or marker.

Making a list, enumerating, and giving instructions, indicates a cataloguing of what is being said or written. It is important to know that most enumerations belong to clearly defined sets. The following are the markets that can be used to show the order in which things are to be said:

- 1, 2, 3, etc.
- one, two, three, etc.
- fist(ly), second(ly), third(ly), etc.
- in the first/second/third place
- lasty, finally
- to begin with, to finish with/to conclude…
- another, next, then
- furthermore, afterwards, moreover, etc.
- first and foremost
- first and most important
- above all
- last but not least…

There are many ways of showing sequential relationships. Those above given are not the only ones, they are the most common ones.

Exercise
Read the following extract about “Science and social concerns” and underline all the listing markers.

1. A basic understanding of science and technology has become indispensable for
2. anyone living in a city or town, because technology – a product of science – has
3. become an important part of peoples’ lives. Firstly, science education aims at
4. increasing common knowledge about science and widening social awareness. The
5. process of learning science begins early in life for many people: school students
6. start learning about science as soon as they acquire basic language skills, an
7. d science is always an essential part of curriculum. In the second place, science
8. education is also a very vibrant field of study and research. Foremost, learning
9. science requires learning its language, which often differs from colloquial
10. language. For example, the terminology of the physical sciences is rich in
11. mathematical jargon, and that of biological studies is rich in Latin names and,
12. last but not least, the language used to communicate science is rich in words
13. pertaining to concepts, phenomena, and processes, which are initially alien to
14. children.
It is also very important to recognize the sequence of events, especially in such activities as scheduling, recounting historical facts, doing routine activities and conducting and describing experiments. Events do not simply occur, they occur either before, during or after other events. This time sequence may be chronological, logical or casual. Once a time reference has been established, certain adjectives and adverbials may order subsequent information in relation to it. The following are examples of time relaters:

<table>
<thead>
<tr>
<th>Previous to given time</th>
<th>Simultaneous with given time reference</th>
<th>Subsequent to time reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>before/ earlier/ former/ formerly already/ prior/ up to now/ yet/ so far/ in the beginning/ long ago...</td>
<td>during/ contemporary/ at present/ at this point/ now/ today/ for the time being/ at the moment/ meantime/ when...</td>
<td>after/ following/ later/ next/ afterwards/ eventually/ since/ by the time/ by the end/ soon/next...</td>
</tr>
</tbody>
</table>

**Exercise**

Read the continuation of the extract about “Science and social concerns” and underline all the time relaters:

1. Due to today’s growing economic value of technology and industrial research, the economy of any modern country depends now, more than ever, on its state of science and technology. The governments of most developed and developing countries therefore designate a significant part of their annual budget to science and technology research and communication and often have a science policy and there are some large-scale science projects - often termed as big science. The practice of science by scientists has undergone remarkable changes in the past few centuries. Most scientific research is currently funded by government or corporate bodies. These relatively recent economic factors appear to increase the incentive for some to engage in fraud in reporting results of scientific research often termed scientific misconduct. Occasional instances of verified scientific misconduct, however, are by no means solely modern occurrences.
Exercise
Read the following extract and find all instances of transitional markers, listing markers, time relater and comparisons present in the text. Identify the main idea, major and minor details.

*Mathematics and the scientific method*

1. Mathematics is essential to many sciences. The most important function of mathematics in science is the role it plays in the expression of scientific models. Observing and collecting measurements, as well as hypothesizing and predicting, often require mathematical models and extensive use of mathematics. Mathematical branches most often used in science include calculus and statistics, although virtually every branch of mathematics has applications, even "pure" areas such as number theory and topology.
2. Mathematics is most prevalent in physics, but less so in chemistry, biology, and some social sciences.

3. Some thinkers see mathematicians as scientists, regarding physical experiments as inessential or mathematical proofs as equivalent to experiments. Others do not see mathematics as a science, since it does not require experimental test of its theories and hypotheses, although some theorems can be disproved by contradiction through finding exceptions. (More specifically, mathematical theorems and formulas are obtained by logical derivations which presume axiomatic systems, rather than a combination of empirical observation and method of reasoning that has come to be known as scientific method.) In either case, the fact that mathematics is such a useful tool in describing the universe is a central issue in the philosophy of mathematics.
Sample sentences with examples in italics and connectives in bold:

1. The switches are capable of being in one or two possible states that is, on or off.
2. Computers have circuits for performing arithmetic operations such as: addition, subtraction, division, and multiplication.
3. The computer can only decide three things, namely: Are two numbers equal? Or is one number less than another?
4. Computers can process information at extremely rapid rates; for example, they can solve certain arithmetic problems millions of times faster than a skilled mathematician.

Exercise

Though sometimes examples can be shown explicitly, it is important to bear in mind that they are not always presented in that way. Considering this, try to guess which the examples in the text below are:

Some of the most common methods of inputting information is to use magnetic tapes, disks, and terminals. The computer’s input device, which might be a card reader, a tape drive or disk drive, depending on the medium used, reads the information into the computer. For outputting information, two common devices used are a printer, which prints the new information on paper, or a screen, which shows the results on a T.V.-like screen.
There are many reasons why people read; but in an academic setting, reading is primarily done to get information on a particular subject. It is important to the reader to understand the relationship between the information given and the information which preceded it. Often information is presented in such a way as to suggest a reinforcement of what has been said, or to show a similarity to what has been said before.

When writers give explanations about something, they usually offer examples to support their argument in favour of a particular viewpoint. They may choose to present the information *deductively*, in which case a generalization is given first and then examples are given in support of the general statement or principle. Others prefer to provide examples first, and then make the generalization. This form of presentation is *inductive*.

**Reinforcement**

Some markers used to show reinforcement are:

<table>
<thead>
<tr>
<th>Furthermore</th>
<th>Too</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition</td>
<td>Moreover</td>
</tr>
<tr>
<td>As well as</td>
<td>Additionally</td>
</tr>
<tr>
<td>Besides</td>
<td>What is more</td>
</tr>
</tbody>
</table>

**Examples**

1. *In addition to leprosy, smallpox has been one of the most loathsome diseases suffered by Mankind.*
2. In our busy world, it’s not usual to feel worried at times. You may worry about your family, your job, your health and other personal issues. *Moreover,* you may worry about friends and your community too.
**Similarity**

Markers are used to add information to show that something is similar to what has been said before. Some of them are:

<table>
<thead>
<tr>
<th>Equally</th>
<th>Similarly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likewise</td>
<td>Correspondingly</td>
</tr>
<tr>
<td>In the same way</td>
<td></td>
</tr>
</tbody>
</table>

* In initial position

**Examples:**

1. Many microcomputers are used merely for a fixed application. Microcomputers operate in much the same way as is the case in automobile emission control systems.

2. The evidence shows that exercise can reduce blood pressure. Equally doing sport moderately can be very effective for lessening the risks of a heart attack.
Medicine is the branch of health science and the sector of public life concerned with maintaining or restoring human health through the study, diagnosis and treatment of disease and injury. Besides, medicine can be regarded at the same time as an area of knowledge – a science of body systems, their diseases and treatment – and the applied practice of that knowledge. However, medicine often refers more specifically to matters dealt with by physicians and surgeons.

The various specialized branches of the science of medicine correspond to the equally specialized medical professions dealing with particular organs or diseases. The science of medicine is the knowledge of body systems and diseases, while the profession of medicine refers to the social structure of the group of people formally trained to apply that knowledge to treat disease.

Likewise many scientific disciplines, Medicine comprises various specialized sub-branches, such as cardiology or neurology, or other fields such as sports medicine, research or public health.

Similarly, Medicine is also often used amongst medical professionals as shorthand for internal medicine. Veterinary medicine is the practice of health care in animal species other than human beings.

Exercise

While reading the following text, circle the markers used to add information and underline the information that is being added.
LANGUAGE IN CONTEXT (11)

Giving an explanation or a definition

Authors often give definitions to new or unfamiliar terms, or vocabulary items and concepts, or ideas which are specific to the subject being discussed. Not only are definitions given, but explanations are frequently supplied, either implicitly or explicitly, to avoid confusion in the mind of the reader.

Some expressions or markers used to define or explain a statement explicitly are:

<table>
<thead>
<tr>
<th>Expression</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td>*By ... we mean</td>
</tr>
<tr>
<td>It is taken to be</td>
<td>*By ... is meant</td>
</tr>
<tr>
<td>Denotes</td>
<td>In other words</td>
</tr>
<tr>
<td>Refers to</td>
<td>*That is (to say)</td>
</tr>
<tr>
<td>It is defined as</td>
<td></td>
</tr>
</tbody>
</table>

*In initial position

**Examples:**

1. The term computer is defined as the processor plus the internal memory.
2. In general, by the word culture we mean the human activity.
3. The word "literature" spelled with a lower-case "l" can refer to any form of writing, such as essays; while "Literature" spelled with an upper-case "L" is taken to be a whole body of literary work, world-wide or relating to a specific culture.
There are other ways used to define or explain, depending on the style used. One very common method is to give the term being defined and say what it is without repeating the term.

**Examples**

1. **Enzymes** are organic compounds.
2. An **essay** is a short work.
3. Geology is the study of the Earth's litosphere, mantle, and core.

Another very common method is to use the same pattern as above and also give some distinguishing characteristics:

1. Enzymes are organic compounds that take part in thousands of chemical reactions in our body.
2. An essay is a short work that treats a topic from an author's personal point of view.
3. Tapes and disks are memory devices that can be stored for future use.

One of the most frequent forms of definition or explanation is to write two nouns or noun phrases separated by commas.
Examples:

1. Computers, electronic devices for processing information, are used in practically every aspect of life.
2. The Dorsal Cavity, one of the major cavities in the human body, contains the brain and the spinal cord.
3. Politics, the process and method of gaining or maintaining support for public or common action, predates human society.

Exercises:

A) Study the following definitions. A definition usually includes all these parts: the term to be defined, the group it belongs to, and the characteristics which distinguish it from other members of the group.

1. A cereal is a plant that produces grains that can be eaten or used for making flour or bread.
2. A preservative is a substance which stops food from going off.
3. A computer is a machine with an intricate network of electronic circuits that operate switches.
4. Market Research is the activity of collecting and studying information about what people want, need, and buy.
5. Guidelines are pieces of advice that an organization or person issues, intended to help you do something.

B) Identify the definitions and explanations given in the following text:

Society is a group of people who form a semi-closed system. At its simplest, the term *society* refers to a large group of people sharing their own culture and institutions. A society, then, is a network of relationships between people. The English word *society* is derived from the French *société*, which, in turn, had its origin in the Latin *societas*, a “friendly association with others,” from *socius* meaning “companion, associate, comrade or business partner.” Thus, the meaning of society is closely related to what is considered to be social. Implicit in the meaning of society is that its members may share some mutual concern or interest, a common objective or common characteristics. The social sciences generally use the term *society* to mean a group of people who form a semi-closed social system, in which most interactions are with other individuals belonging to the group. More abstractly, a *society* is defined as a network of relationships between social entities. A *society* is also sometimes defined as an interdependent community, but the sociologist Tönnies sought to draw a contrast between society and community. An important feature of society is social culture, aspects of which include roles and social ranking.
LANGUAGE IN CONTEXT (12)

Classifying

The term “classification” means to separate objects from one another. The simplest classification divides things into those that show groups of characteristics that are shared and those that are not. For example, one would not place fish and birds together in the same class with trees.

Classification usually goes from general to specific and is essential in attempting to make sense out of things around us. Classification, then, is a process of bringing order out of confusion by breaking down the general topic into its related parts in a logical way. Outlining is very closely related to classification, because it organizes information a logical fashion, going from general to specific, or from least important to most important, or from specific to general.

From general to specific

There are several ways of expressing each of these relationships:

- ...can be divided into
- ...has
- ...is made up
- ...comprises
- ...is of
- ...includes
- ...is composed of
- ...consists of
From specific to general

Some of the most common expressions to make reference to this kind of relationship are:

...are of ...make up
...form ...constitute
...are classified as

Exercises:
Taking the following the example, try to write it again by using the expressions above:

1. The CPU is divided into three parts: the control unit, the arithmetic-logical unit, and memory.
2. The introduction, the development of the topic, the conclusion, and the bibliography are the parts of a dissertation.
Reading texts often have connectives omitted without seriously affecting the flow of intelligibility. However, connectives dealing with contrasting elements within a sentence or paragraph are very rarely absent because without these, the reading would be nonsensical and confusing. There are many ways of showing that contrast exists between things.

👀 The easiest indicator that a contrast exists and that also emphasizes that the opposite is true, is when a statement is introduced by one of the following markers:

- **On the contrary**
- **On the one hand … on the other hand**
- **By contrast**
- **Conversely**
- **Opposite**
- **In comparison**
- **By way of contrast**

👀 Sometimes contrastive connective are used to indicate that what follows is a replacement of what was said before. Examples of such markers are:

- **Alternatively**
- **Instead**
- **But**
- **Then**
- **Rather than**
- **Whereas**
- **An/the alternative is (initial position)**
- **It might be better if (initial position)**

👀 When the writer wants to express that what has been said before is true or correct, but what follows is, in contrast, also true or correct, the following connective markers are used:

- **But**
- **However**
- **Nevertheless**
- **Nonetheless**
- **Even if**
- **Even though**
- **Although**
- **Though**
- **In spite of+ noun**
- **Despite+ noun or -ing**
- **On the other hand**
Exercises

A) Rewrite the following sentence by using the expressions above:

1. A computer can solve a complex problem in seconds; by way of contrast, man would take weeks, maybe months, to do the same operations.

B) Write a suitable connective in each of the following sentences:

1. In *A Homage to Catalonia* Orwell does not praise communism, ............... he criticizes it.

2. When a computer fails to produce the desire output, it is often due to human error ................. the fault of the computer itself.

3. Fat people are likely to suffer from a heart failure, ................. slim people are usually out of that risk.

4. ................. to ordinary medicine is homeopathy.

C) Read the following text and fill in the table below:

*The Simple yet Elegant Furnishings of an Athenian Home.*-“These houses, even owned by the lordly rich, are surprisingly simple in their furnishings. The accumulation of heavy furniture, wall decorations, and bric-a-brac which will characterize the dwellings of a later age, would be utterly offensive to an Athenian—contradicting all his ideas of harmony and "moderation." The Athenian house lacks of course bookcases and framed pictures. It probably too lacks any genuine closets. Beds, couches, chairs (usually backless), stools, footstools, and small portable tables,—these alone seem in evidence. In place of bureaus, dressers and cupboards, there are huge chests, heavy and carved, in which most of the household gear can be locked away. In truth, the whole style of Greek household life expresses that simplicity on which we have already commented. Oriental carpets are indeed met with, but they are often used as wall draperies or couch covers rather than upon the floors. Greek costume (see p. 43) is so simple that there is small need for elaborate chests of drawers, and a line of pegs upon the wall cares for most of the family wardrobe.

All this is true; yet what furniture one finds is fashioned with commendable grace. There is a marked absence of heavy and unhealthful upholstery: but the simple bed (four posts sustaining a springless cushion stuffed with feathers or wool) has its woodwork adorned with carving which is a true mean betwixt the too plain and the too ornate: and the whole bed is given an elegant effect by the magnificently embroidered scarlet tapestry which overspreads it. The lines of the legs of the low wooden tables which are used at the dinner parties will be a lesson (if we have time to study them) upon just proportion and the value of subtle curves. Moreover, the different household vessels, the stone and bronze lamps, the various table dishes, even the common pottery put to the humblest uses, all have a beauty, a chaste elegance, a saving touch of deft ornamentation, which transforms them out of "kitchen ware" into works of art. Those black water pots covered with red-clay figures which the serving maids are bearing so carelessly into the scullery at the screaming summons of the cook will be some day perchance the pride of a
museum, and teach a later age that costly material and aristocratic uses are not needful to make an article supremely beautiful.

Of course the well-to-do Athenian is proud to possess certain "valuables." He will have a few silver cups elegantly chased, and at least one diner's couch in the andron will be made of rare imported wood, and be inlaid with gilt or silver. On festival days the house will be hung with brilliant and elaborately wrought tapestries which will suddenly emerge from the great chests. Also, despite frowns and criticisms, the custom is growing of decorating one's walls with bright-lined frescoes after the manner of the Agora colonnades. In the course of a few generations the homes of the wealthier Greeks will come to resemble those of the Romans, such as a later age has resurrected at Pompeii.

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<table>
<thead>
<tr>
<th>Contrastive marker</th>
<th>Function of marker</th>
<th>Items contrasted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23
Understanding the different way of expressing the relationship between the causes and effects of an action is very important when you are reading English. If an argument begins with effects or results, the causes are the reasons that logically lead to those results. This cause-effect relationship is commonly used in academic texts.

There are many different ways of expressing cause and effect:

A causes/ results in B
Dust causes the recording condition of disks to deteriorate.
B results from/ is caused by A
Deterioration in the recording condition of disks is caused by dust.

Often, the choice of verbs in a sentence will indicate a cause-effect relationship. The following verbs are used to link a cause with an effect:

<table>
<thead>
<tr>
<th>Result</th>
<th>Cause</th>
<th>Produce</th>
<th>Allow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable</td>
<td>Prevent</td>
<td>Be caused by</td>
<td>Be</td>
</tr>
<tr>
<td>produced by</td>
<td>Result in</td>
<td>Result from</td>
<td>Bring about</td>
</tr>
</tbody>
</table>

Examples:

1. The idea of keeping instructions for the computer inside the computer memory 
   brought about significant changes in computer technology.

2. The misleading and disappointing experience in earlier trials with idoxuridine (IDU) 
   resulted in more controlled studies.

3. The widespread conviction during the postwar years that adolescents could not 
   really be helped by psychiatry prevented psychiatric services from being 
   provided for adolescents aged 13 or 14.
Connectives commonly used to specify a cause are:

- Because
- If
- In response to
- Due to
- As
- Since
- As the/a result of

Some expressions used to introduce a result are:

- Thus
- Therefore
- With the result that
- Hence
- Consequently
- So that
- For this reason

Exercises

A) Rewrite the following sentence by using some of the connectives above:

Many people are attracted to running because they think it is good for developing muscle tone and losing weight.

B) Rewrite the following extract so that it does not have changes in meaning:

Job loss is the most traumatic job-related experience that anybody can ever have. It creates economic problems through the loss of income in addition to loss of self-esteem and prestige and a sense of doubt about competence.

C) Read the following text about Adam Smith, the 18th century renowned economist, and underline those sentences expressing either cause or effect:

Shortly before his death Smith had nearly all his manuscripts destroyed. In his last years he seemed to have been planning two major treatises, one on the theory and history of law and one on the sciences and arts. The posthumously published Essays on Philosophical Subjects (1795) probably contain parts of what would have been the latter treatise.

The Wealth of Nations was influential since it did so much to create the field of economics and develop it into an autonomous systematic discipline. In the Western world, it is arguably the most influential book on the subject ever published. When the book, which has become a classic manifesto against mercantilism (the theory that large reserves of bullion are essential for economic success), appeared in 1776, there was a strong sentiment for free trade in both Britain and America. This new feeling had been born out of the economic hardships and poverty caused by the American War of Independence. However, at the time of publication, not everybody was
immediately convinced of the advantages of free trade: the British public and Parliament still clung to mercantilism for many years to come.

*The Wealth of Nations* also rejects the Physiocratic school's emphasis on the importance of land; instead, Smith believed labour was paramount, and that a division of labour would affect a great increase in production. *Nations* was so successful, in fact, that it led to the abandonment of earlier economic schools, and later economists, such as Thomas Malthus and David Ricardo, focused on refining Smith's theory into what is now known as classical economics (Modern economics evolved from this). Malthus expanded Smith's ruminations on overpopulation, while Ricardo believed in the "iron law of wages" — that overpopulation would prevent wages from topping the subsistence level. Smith postulated an increase of wages with an increase in production, a view considered more accurate today.

One of the main points of *The Wealth of Nations* is that the free market, while appearing chaotic and unrestrained, is actually guided to produce the right amount and variety of goods by a so-called "invisible hand" (originally written in Moral Sentiments). If a product shortage occurs, for instance, its price rises, creating a profit margin that creates an incentive for others to enter production, eventually curing the shortage. If too many producers enter the market, the increased competition among manufacturers and increased supply would lower the price of the product to its production cost, the "natural price". Even as profits are zeroed out at the "natural price," there would be incentives to produce goods and services, as all costs of production, including compensation for the owner's labour, are also built into the price of the goods. If prices dip below a zero profit, producers would drop out of the market; if they were above a zero profit, producers would enter the market. Smith believed that while human motives are often selfish and greedy, the competition in the free market would tend to benefit society as a whole by keeping prices low, while still building in an incentive for a wide variety of goods and services. Nevertheless, he was wary of businessmen and argued against the formation of monopolies.
A prediction is a statement about a particular subject which is related to a prior condition being fulfilled. It is a special kind of inference in which we tell in advance what we think will happen in the future. It is therefore impossible to predict without having any knowledge of an existing condition. By examining existing data, a logical conclusion can be often logically drawn about what is likely to happen next. Predictions of results based on existing conditions can be expressed as different levels of certainty. They are not absolute, and can change according to context. For example:

1. Certainty can be conveyed by:

   \[ \text{Will (definitely, certainly)} \]
   \[ \text{Certain, sure} \]
   \[ \text{Without a doubt, without question} \]

2. Probability can be conveyed by:

   \[ \text{Probable, probably} \]
   \[ \text{Likely} \]
   \[ \text{Most probable, most probably, highly probable, most likely, highly likely} \]

3. Possibility can be expressed by:

   \[ \text{May (not), might (not), can, could, possible, possibly, perhaps} \]
4. Improbability:

<table>
<thead>
<tr>
<th>Improbable, unlikely</th>
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</thead>
<tbody>
<tr>
<td>Doubtful, questionable</td>
</tr>
<tr>
<td>Probably not</td>
</tr>
<tr>
<td>Most / highly improbable / unlikely</td>
</tr>
<tr>
<td>Most / highly doubtful / questionable</td>
</tr>
<tr>
<td>Most probably not</td>
</tr>
</tbody>
</table>

5. Impossibility:

| Cannot, could not, not possible, impossible |

Exercise

Read the following sentences and underline the part that expresses a condition, once; and the part expressing a prediction, twice:

1. It has been said that if transport technology had developed as rapidly as computer technology, a trip across the Atlantic Ocean today would take a few seconds.

2. Working for the U.S. Census Bureau, Dr. Hollerith realized that unless some means of speeding up the analyses of census data were found, it would take more than ten years to complete the job.

3. If the hammer in train printers hits a little early or late, the character will appear slightly to the right of its proper position.

4. Mainframes would still be occupying a lot of space if it were not for microminiaturization.

5. If computer technology continues growing at the rate it has, bubble memory will soon replace the chip.


Exercise

Read the following extract about Charles Dickens. Then try to find all instances of examples, definitions, added information, classifications, and markers expressing cause and effect. Finally, identify the main ideas in the text.

In the nineteenth century the writing of novels emerged from a permitted indulgence to an acceptable career. Fielding and Smollet, Dickens’s heroes, did not depend on their novels for a living any more than did Richardson and Jane Austen, whereas for Dickens, Thackeray, Trollope and Henry James, their art ensured not only a means of subsistence but social prestige as well. It is customary to think of Dickens as a critic of the Victorian way of life, but whatever reservations the novels may express about self-aggrandizement, no career could demonstrate the ideal of the self-made man more effectively than his own.

A man of phenomenal energy, Dickens combined his literary career with a variety of social and theatrical interests. Some of his social concerns are documented in essays such as Philip Collin’s two studies, *Dickens and Crime* (1962) and *Dickens and Education* (1963), while the theatrical involvement embraced writing, acting and producing for the stage, and culminated in the famous public readings from his own works. However, a glance through the list of his novels shows the extent in which Dickens’s life was dominated by the demands of authorship, for apart from the gaps between the last three items there is scarcely an unproductive year. When one considers how each of the novels appeared in either weekly or monthly instalments, and that they were supplemented by short stories and occasional journalism, as well as, from time to time, the duties of an editor, it can be fairly said that Dickens’s literary activity over a period of more than thirty years was uninterrupted. Due to lack of space, I have confined myself in the study of the novels alone.

The practice of serial publication, a publisher’s device to facilitate sales which became an important factor in the development of nineteenth-century fiction, had consequences for Dickens’s novels which it is difficult for the modern reader confronted by a set of eight-hundred page volumes to appreciate. Nine of the novels written by Dickens were originally brought out in illustrated monthly parts, each consisting of three or four chapters. Of the remaining six, one, *Oliver Twist*, appeared as a monthly serial in the magazine *Bentley’s Miscellany*, while the other five, all of them rather shorter, were published in serial form in weekly papers. The method of publication had a great bearing on the tone and content of the novels concerned. In the first place, the need to maintain interest by the deployment of an easily identifiable narrative was paramount. Much has been made of the complexity of Dickens’s plots but fundamentally a Dickens novel is based on a simple narrative concept as it can be seen in *Pickwick’s Journey*, the *Oliver Twist* and *David Copperfield*, or in the hidden secrets of *Bleak House*, *Little Dorrit* or *Our Mutual Friend*. On the other hand, with a basic story established, there is ample opportunity for the multiplicity of character and event for which Dickens is famous. The wealth of apparently extraneous detail that is a feature of his novels has sometimes led to the supposition that Dickens wrote without plan, but the information that he gave, along with his own notes for individual novels, shows very clearly the extent to which, particularly in his later novels, he formulated a basic narrative concept to which he could keep firm hold as his novel progressed.