

If you were asked to describe types of computers, you might mention PC's, laptops, and BlackBerries. By dividing a broad topic into its major categories, you are using a pattern known as *classification*.

This pattern is widely used in many academic subjects. For example, a psychology text might explain human needs by classifying them into two categories: primary and secondary. In a chemistry textbook, various compounds may be grouped and discussed according to common characteristics, such as the presence of hydrogen or oxygen. The classification pattern divides a topic into parts, on the basis of common or shared characteristics.

Here are a few examples of topics and the classifications or categories into which each might be divided.

- **Movies:** comedy, horror, mystery
- **Motives:** achievement, power, affiliation, competency
- **Plants:** leaves, stem, roots

The name of the cancer is derived from the type of tissue in which it develops. Carcinoma (carc = cancer; omo = tumor) refers to a malignant tumor consisting of epithelial cells. A tumor that develops from a gland is called an adenocarcinoma (adeno = gland). Sarcoma is a general term for any cancer arising from connective tissue. Osteogenic sarcomas (osteo = bone; genic = origin), the most frequent type of childhood cancer, destroy normal bone tissue and eventually spread to other areas of the body. Myelomas (myelos = marrow) are malignant tumors, occurring in middle-aged and older people, that interfere with the blood-cell-producing function of bone marrow and cause anemia. Chondrosarcomas (chondro = cartilage) are cancerous growths of cartilage.

—Tortora, *Introduction to the Human Body*, p. 56

Process

In disciplines that focus on procedures, steps, or stages by which actions are accomplished, the process pattern is often employed. These subjects include mathematics, natural and life sciences, computer science, and engineering. The pattern is similar to chronology, in that the steps or stages follow each other in time. Transitional words and phrases often used in conjunction with this pattern are similar to those used for chronological order. You can visualize the process pattern as follows:

Let us track your brain waves through the night. As you prepare to go to bed, an EEG records that your brain waves are moving along at a rate of about 14 cycles per second (cps). Once you are comfortably in bed, you begin to relax and your brain waves slow down to a rate of about 8 to 12 cps. When you fall asleep, you enter your *sleep cycle*, each of whose stages shows a distinct EEG pattern. In Stage 1 sleep, the EEG shows brain waves of about 3 to 7 cps. During Stage 2, the EEG is characterized by *sleep spindles*, minute bursts of electrical activity of 12 to 16 cps. In the next two stages (3 and 4) of sleep, you enter into a very deep state of relaxed sleep. Your brain waves slow to about 1 to 2 cps, and your breathing and heart rate decrease. In a final stage, the electrical activity of your brain increases; your EEG looks very similar to those recorded during stages 1 and 2. It is during this stage that you will experience REM sleep, and you will begin to dream.

—Zimbardo and Gerrig, *Psychology and Life*, p. 115

CAUSE AND EFFECT

The cause-and-effect pattern expresses a relationship between two or more actions, events, or occurrences that are connected in time. The relationship differs, however, from chronological order in that one event leads to another by *causing* it. Information that is organized in terms of the cause-and-effect pattern may:

- explain causes, sources, reasons, motives, and action
- explain the effect, result, or consequence of a particular action
- explain both causes and effects

The cause-and-effect pattern is used extensively in many academic fields. All disciplines that ask the question "Why" employ the cause-and-effect thought pattern. It is widely used in the sciences, technologies, and social sciences.

Many statements expressing cause-and-effect relationships appear in direct order, with the cause stated first and the effect following: "When demand for a product increases, prices rise." However, reverse order is sometimes used, as in the following statement: "Prices rise when a product's demand increases."

The cause-and-effect pattern is not limited to an expression of a simple one-cause, one-effect relationship. There may be multiple causes, or multiple effects, or both multiple causes and multiple effects. For example, both slippery road conditions and your failure to buy snow tires (causes) may contribute to your car sliding into the ditch (effect).

In other instances, a chain of causes or effects may occur. For instance, failing to set your alarm clock may force you to miss your 8:00 a.m. class, which in turn may cause you not to submit your term paper on time, which may result in a penalty grade.

Why do fashions occur in the first place? One reason is that some cultures, like ours, *value change*: what is new is good, even better. Thus, in many modern societies clothing styles change yearly, while people in traditional societies may wear the same style for generations. A second reason is that many industries promote quick changes in fashion to increase sales. A third reason is that fashions usually trickle down from the top. A new style may occasionally originate from lower-status groups, as blue jeans did. But most fashions come from upper-class people who like to adopt some style or artifact as a badge of their status. But they cannot monopolize most status symbols for long. Their style is adopted by the middle class, maybe copied or modified for use by lower-status groups, offering many people the prestige of possessing a high-status symbol.

—Thio, *Sociology*, p. 534

The **comparison organizational pattern** is used to emphasize or discuss similarities between or among ideas, theories, concepts, or events, whereas the **contrast pattern** emphasizes differences. When a speaker or writer is concerned with both similarities and differences, a **combination pattern** is used. You can visualize these three variations of the pattern as follows:

The comparison-and-contrast pattern is widely used in the social sciences, where different groups, societies, cultures, or behaviors are studied. Literature courses may require comparisons among poets, among several literary works, or among stylistic features. A business course may examine various management styles, compare organizational structures, or contrast retailing plans.

Small businesses are likely to have less formal purchasing processes. A small retail grocer might, for example, purchase a computer system after visiting a few suppliers to compare prices and features, while a large grocery store chain might collect bids from a specified number of vendors and then evaluate those bids on pre-established criteria. Usually, fewer individuals are involved in the decision-making process for a small business. The owner of the small business, for example, may make all decisions, and a larger business may operate with a buying committee of several people.

—Kinneer, Bernhardt, and Krentler, *Principles of Marketing*, p. 218

Chronology

Chronological order refers to the sequence in which events occur in time. This pattern is essential in the academic disciplines concerned with the interpretation of events in the past. History, government, and anthropology are prime examples. In various forms of literature, chronological order is evident; the narrative form, used in novels, short stories, and narrative essays, relies on chronological order.

You can visualize the chronological order pattern as follows:

In 1999, a smoldering conflict in Kosovo, another of the provinces of the former Yugoslavia, led to war. In an effort to stop Slobodan Milosevic, the Serbian leader responsible for the devastation of Bosnia, from squelching a movement for autonomy in Kosovo, NATO, now 50 years old, launched an American-led bombing campaign. Milosevic responded with an even more violent "ethnic cleansing" campaign that drove hundreds of thousands of Kosovars from their homes. Even without the introduction of ground troops, this ultimately successful air assault was the largest allied operation in Europe since World War II.

—Nash et al., *The American People*, p. 1099

Each academic discipline has its own specialized vocabulary. One of the primary purposes of introductory textbooks is to introduce students to this new language. Consequently, definition is a commonly used pattern throughout most introductory-level texts.

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Suppose you were asked to define the word *comedian* for someone unfamiliar with the term. First, you would probably say that a comedian is a person who entertains. Then you might distinguish a comedian from other types of entertainers by saying that a comedian is an entertainer who tells jokes and makes others laugh. Finally, you might mention, by way of example, the names of several well-known comedians who have appeared on television. Although you may have presented it informally, your definition would have followed the standard, classic pattern. The first part of your definition tells what general class or group the term belongs to (entertainers). The second part tells what distinguishes the term from other items in the same class or category. The third part includes further explanation, characteristics, examples, or applications.

See how the term *genetics* is defined in the following paragraph, and notice how the term and the general class are presented in the first sentence. The remainder of the paragraph presents the distinguishing characteristics.

Genetics is the scientific study of heredity, the transmission of characteristics from parents to offspring. Genetics explains why offspring resemble their parents and also why they are not identical to them. Genetics is a subject that has considerable economic, medical, and social significance and is partly the basis for the modern theory of evolution. Because of its importance, genetics has been a topic of central interest in the study of life for centuries. Modern concepts in genetics are fundamentally different, however, from earlier ones.

—Mix, Farber, and King, *Biology, The Network of Life*, p. 262