

DEFINING RELATIVE CLAUSES

A. You may reduce the restrictive relative if

1. the relative clause consists only of the relative pronoun, the verb *to be*, and one or more prepositional phrases;

A gill is an external respiratory organ *which is* in the gill chamber at the rear of the mouth of most aquatic animals. —»

A gill is an external respiratory organ in the gill chamber at the rear of the mouth of most aquatic animals.

Enamel, in dentistry, is a hard, white inorganic material *that is* on the crown of a tooth. —»

Enamel, in dentistry, is a hard, white inorganic material on the crown of a tooth.

2. the relative clause consists of a passive verb plus some *additional* information;

A theater is a building *which has been* specifically designed for dramatic performances. —»

A theater is a building specifically designed for dramatic performances.

A collagen is a white, inelastic protein *that is* formed and maintained by fibroblasts. —»

A collagen is a white, inelastic protein formed and maintained by fibroblasts.

3. the relative clause contains the relative pronoun, an adjective ending in *-ble*, plus *additional* information.

A robot is a multiprogrammable device *which is* capable of performing the work of a human. —»

A robot is a multiprogrammable device capable of performing the work of a human.

4. the relative clause contains the verb *have*. In this case the relative pronoun and *have* can both be dropped and replaced by *with*;

A parliament is a national governing body *which has* the highest level of legislative power within a state. —»

A parliament is a national governing body *with* the highest level of legislative power within a state.

5. the relative clause contains an active state verb (a verb that expresses a state or something that is going on). The relative pronoun is dropped and the verb changed to the *-ing* form. Exceptions to this are *to be* and *have*.

Pollution is a form of contamination *that often* results from human activity. —»

Pollution is a form of contamination often *resulting* from human activity.

A moon is a natural satellite *which orbits* around a planet. —»

A moon is a natural satellite *orbiting* around a planet.

Exercise I: Edit the following by reducing the relative clauses

1. Aluminum is a lightweight metal that is often used for hightension power transmission.
2. Heat is a form of energy which can be transmitted through solid and liquid media by conduction.
3. A brake is a device that is capable of slowing the motion of a mechanism.
4. A dome is generally a hemispherical roof which is on top of a circular, square, or other-shaped space.
5. Snow is a form of precipitation which results from the sublimation of water vapor into solid crystals at temperatures below 0°C.
6. An antigen is a substance which causes the formation of antibodies, the body's natural response to foreign substances.
7. A catalyst is a substance that can speed up the rate of a chemical reaction without changing its own structure.
8. A black hole is a celestial body which has approximately the same mass as the sun and a gravitational radius of about 3 km.

B. Now notice also that in a full relative clause, **the relative pronoun can be preceded by a preposition.** The relative pronoun *which* must be used in this type of restrictive relative clause. This construction is common in formal academic writing. These clauses cannot be reduced.

e.g.: A foundation is a base *on* which a structure can be built.

Exercise II: Complete the following definitions by inserting an appropriate preposition.

1. A thermometer is an instrument ___ which temperature can be measured.
2. Photosynthesis is a process ___ which sunlight is used to manufacture carbohydrates from water and carbon dioxide.
3. An anhydride is a compound ___ which the elements of water have been removed.
4. An eclipse is a celestial event ___ which one body, such as a star, is covered by another, such as a planet.
5. An axis is an imaginary line ___ which a body is said to rotate.

Whereby is commonly used in formal writing instead of *by which*, *by means of which*, and *through which*.

e.g.: Collective bargaining is a process *whereby* employers agree to discuss work-related issues with employee representatives.

C. Here are a few final comments on how **information should be presented in a one-sentence definition**. First, care should be taken to find the precise word or phrase for the class:

A **microscope is an object . . .** , is less precise than A **microscope is an *instrument* . . .**

A **vowel is a sound . . .** , is less precise than A **vowel is a *speech sound* . . .**

Exercise III: Choose a word or phrase that assigns the following terms or phrases to a precise class. Then form their definitions. Use your dictionary, if necessary.

1. a beaker
2. an ellipse
3. an amplifier
4. neon
5. a parasite
6. an electric motor
7. lysine
8. mitosis
9. oxidation
10. (one of your own)