PLAGIARISM

A Student's Guide to Recognizing It and Avoiding It

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Most of the plagiarism committed by students is unwitting and is due to their ignorance about what constitutes plagiarism. If you do not know exactly what plagiarism is, you cannot avoid doing it. This guide is intended to illustrate plagiarism is in all its forms.

There are several different kinds of plagiarism. Most students recognize one form which I call "Copy & Paste Plagiarism," but that is only the most obvious kind. In what follows, I give a brief description of each kind of plagiarism illustrated with examples. The "**Source Article**" is the published material on the left, and on the right are examples of plagiarized text and text that successfully uses the Source Article as a legitimate reference.

Types of Plagiarism considered here:

Type I: **Copy & Paste**
Type II: **Word Switch**
Type III: **Style**
Type IV: **Metaphor**
Type V **Idea**

Type I: **Copy & Paste** Plagiarism

Description: Any time you lift a sentence or significant phrase intact from a source, you must use quotations marks and
reference the source.

Source Article:

Especially since the launch of HST and the unprecedented clarity of the images satellites have given us, you've all seen on the news or in books, beautiful color pictures of various sights in the cosmos. But is this the way you would see these objects if you went there? Well, to tackle that question, first we have to consider the nature of light and color. Light is made of waves of electromagnetic radiation. We perceive different wavelengths of visible light as different colors.

Copy & Paste PLAGIARISM

Everyone is interested in astronomical images, especially since the launch of HST and the unprecedented clarity of the images satellites have given us. But is this the way you would see these objects if you went there?

How to use the info without plagiarizing

We are all thrilled by the beauty of pictures of the universe taken with space telescopes and other satellites. The pictures display spectacular color and detail, but, as posed in "Source Article" by So-n-so, "is this the way you would see these objects if you went there?"

Type II: **Word Switch** Plagiarism

Description: If you take a sentence from a source and change around a few words, it is still plagiarism. If you want to quote a sentence, then you need to put it in quotation marks and cite the author and article. But quoting Source articles should only be done if what the quote says is particularly useful in the point *you* are trying to make in what *you* are writing. In the case below, a quotation would not be useful. The person who plagiarized in this example has just been too lazy to synthesize the ideas expressed in the Source article.

Source Article:

All solid bodies emit light: stars, rocks and people included. The temperature of the star, rock or person determines which wavelength of light will be most strongly radiated. In the constellation Orion, the upper left star is Betelgeuse (Armpit of the giant), 520 l-y distant. Betelgeuse is a supergiant star, 14,000 times brighter than our sun, and so big, if you were to put Betelgeuse in place of our sun, its surface would reach all the way out to Jupiter. Betelgeuse's color is bright red. On the other hand, another supergiant star, Rigel, with a luminosity 57,000 times that of the sun, appears whitish-blue. The reason that Betelgeuse is red and Rigel is blue is that their surface temperatures are different. Hot stars at 30,000 degrees emit a lot more blue light than red light, and so hot stars look blue or bluish-white. Cool stars at 3,000 degrees give off more red light than blue, and so these stars look red.

Word Switch PLAGIARISM

Stars, rocks and people all emit light, and which wavelength of light will be most strongly radiated depends on the temperature of the star, rock or person. For example, the star Betelgeuse in the constellation Orion, Armpit of the Giant, is a supergiant star, 14,000 times brighter than our own sun.

How to use the info without plagiarizing:

Everything has a temperature, and everything radiates light, and the two are not unconnected. In fact, the hotter a body is, the more blue light it radiates and the colder, the redder the emission. So what is the difference between red and blue light? It is the wavelength. An interesting example is given in 'The Source Article" by So-n-so, where the author points out that the star Betelgeuse in the constellation Orion is very red because its temperature is so cool, and Rigel, another star in Orion, is blue because it is so hot.

Another example of Word Switch Plagiarism:

Source Article:

Brown dwarfs rank among the most elusive objects in the universe. With masses from about 15 to 80 times that of Jupiter, they are bigger than planets but too small to ignite the nuclear fusion reactions that cause stars to shine.

Word Switch PLAGIARISM

Brown dwarfs are difficult to locate and rank among the most elusive objects in the universe. Brown dwarfs have masses from about 15 to 80 times that of Jupiter. Scientists have determined that brown dwarfs are bigger than planets, however, they are too small to ignite nuclear fusion reactions which cause stars to shine.

How to use the info without plagiarizing:

Brown dwarfs are more massive than typical planets but yet are too small to be stars. Stars, by definition, maintain nuclear fusion reactions, which require a large mass.

Type III: **Style** Plagiarism ****THIS IS TRAP THAT MOST STUDENTS FALL INTO!****

Description: When you follow a Source Article sentence-by-sentence or paragraph-by-paragraph (as is done in the example below), it is plagiarism, even though none of your sentences is exactly like those in the Source Article or even in the same order. What you are copying in this case, is the *author's reasoning* style. If you were to make a basic outline of the Source Article below and then outline the Style-plagiarized example on the right, you would see that the outlines are the same! Contrast this with the non-plagiarized example, where the information in the Source Article is used only to enhance the point the *student* is trying to make.

Source Article:

Especially since the launch of HST and the unprecedented clarity of the images satellites have given us, You've all seen on the news or in books, beautiful color pictures of various sights in the cosmos. But is this the way you would see these objects if you went there? Well, to tackle that question, first we have to talk about the nature of light and color.

Light is made of waves of electromagnetic radiation. We perceive different wavelengths as different colors.

All solid bodies emit light: stars, rocks and people included. The temperature of the star, rock or person determines which wavelength of light will be most strongly radiated. In the constellation Orion, the upper left star is Betelgeuse (Armpit of the giant), 520 l-y distant. Betelgeuse is a supergiant star, 14,000 times brighter than our sun. and so big, if you were to put Betelgeuse in place of our sun, its surface would reach all the way out to Jupiter. Betelgeuse's color is bright red. On the other hand, another supergiant star, Rigel, with a luminosity 57,000 times that of the sun, appears whitish-blue. The reason that Betelgeuse is red and Rigel is blue is that their surface temperatures are different.

Hot stars at 30,000 degrees emit a lot more blue light than red light, and so hot stars look blue or bluish-white. Cool stars at 3,000 degrees give off more red light than blue, and so these stars look red.

Style PLAGIARISM

The beautiful pictures that the space telescope has given us show spectacular color. But is the color real? First, we have to consider what light and color are. Different wavelengths of light correspond to different colors, and light is called electromagnetic radiation. The temperature of an object determines the color of light emitted, and all things, including people, emit light. In the constellation Orion, the star Betelgeuse is a huge, giant star, as big as the orbit of Jupiter. Betelgeuse is red. Another star in Orion, Rigel, is blue. The reason that they are different colors is that they each have a different surface temperature.

Cold stars are at about 3,000 degrees and emit more red than blue light and very hot stars emit blue light since they have temperatures of about 30,000 degrees.

How to use the info without plagiarizing

Is there anything we can know about stars by just looking at them without binoculars or a telescope, or are they just really mysterious objects that will always keep their secrets? With only our naked eyes we can see that stars have different colors, from white to blue to yellowish and red; and color does indeed tell us something important about stars. Color tells us a star's temperature. Everything has a temperature, and everything radiates light, and temperature and light are intimately connected. In fact, the hotter a body is, the more blue light it radiates and the colder, the redder the emission.

Type IV: **Metaphor** Plagiarism

Description: Metaphors are used either to make an idea clearer or give the reader an analogy that touches the senses or emotions better than a plain description of the object or process. Metaphors, then, are an important part of an author's creative style. If you cannot come up with your own metaphor to illustrate an important idea, then use the metaphor in the Source Article, but give the author credit for it.

Source Article:

This picture of the constellation Cygnus, the Swan, in visible light looks rather dull. Yet at an infrared wavelength of 60μ the region looks very different. In infrared light we can see a glittering jewel-box of new born stars peeking out of the dust clouds that lie between us and the center of our Galaxy.

Metaphor PLAGIARISM

Although dusty clouds block our vision of stellar nurseries, infrared light reveals them. These newborns glitter like a jewel box and seem to be peeking at us from behind the dust obscuring them.

How to use the info without plagiarizing

Although dusty clouds block our vision of stellar nurseries, infrared light reveals them. In "Source Article," So-n-so describes these newborns as glittery jewel boxes peeking out at us from deep inside the dust clouds where they still remain.

Another example:

Source Article:

The black holes seem to inhabit every galaxy that has a central bulge--the vast, elliptical swarm of very old stars which constitutes many galaxies' most prominent part.

Metaphor PLAGIARISM

The bulge is a large swarm of extremely old stars.

How to use the info without plagiarizing

The bulge of a galaxy is elliptical and contains old stars that fly around the center like bees in a hive.

Type V: **Idea** Plagiarism

Description: If the author of the source article expresses a creative idea or suggests a solution to a problem, the idea or solution must be clearly attributed to the author. Many students have difficulty distinguishing an author's ideas and/or solutions from *public domain information*. Public domain information is any idea or solution about which people in the field accept as general knowledge. For example, what a black hole is and how it is defined is general knowledge. You do not need to reference a general description of a black hole. The escape velocity of earth is also general knowledge and needs no reference. The approximate distance to the center of the Galaxy is also general knowledge. However, a new idea about how to look for black holes or a new solution to a physics problem needs to be attributed to the authors. If you don't know what is accepted as public domain in a particular field, ASK.

Source Article:	**Idea PLAGIARISM**
Until now, infrared carbon stars have been classified as such due either to the presence of carbon-rich dust or to these stars' presence in region VII of the Habing diagram. Our visible spectra show conclusively that these stars are true carbon stars and do not have any O-rich molecules in their atmospheres. Their weak Ba lines might indicate an under-abundance of *s*-process elements. This important result, if true, would certainly separate infrared carbon stars from the optical population.	Infrared carbon stars show weak Ba lines and this might mean that they do not have the normal amount of *s*-process elements in their atmospheres, making them decidedly a different type of star. **How to use the info without plagiarizing** The difference between optical and infrared carbon stars might soon be resolved since So-n-so (Source Article) announced that the weakness of Ba lines might indicate that the infrared group originates from a different population than optical carbon stars.

Another Example:

Source Article:	**How to use the info without plagiarizing**
Hot stars at 30,000 degrees emit a lot more blue light than red light, and so hot stars look blue or bluish-white. Cool stars at 3,000 degrees give off more red light than blue, and so these stars look red.	Stars considered to be hot are 30,000 degrees, whereas stars as cool as 3,000 degrees are considered to be cold.