



PLTW Engineering

12/Intellectual Property

April 10, 2020



12/EDD

Lesson: **4/10/2020**

Objective/Learning Target: Students will be able to recognize intellectual property and explain how it relates to engineering

Intellectual Property

Intellectual property is something produced by the mind, of which the ownership or right to use it can be legally protected.





Intrapreneur vs. Entrepreneur

An Intrapreneur is a person working for a corporation, who has the freedom and resources to ideate new products or business ventures.

An Entrepreneur is a person who organizes and manages businesses, assuming the risk for the sake of the financial loss or profit.



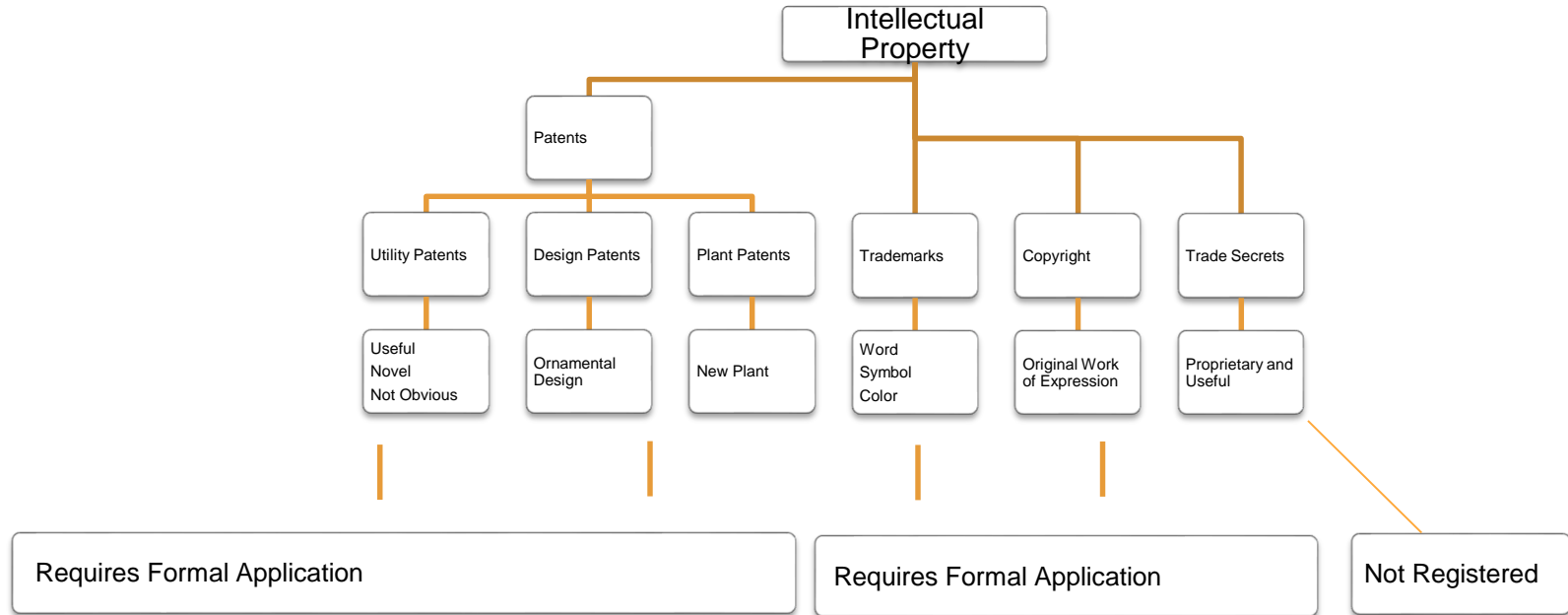
Invention vs. Innovation

An invention is a new device, method, or process developed from study and experimentation.

An innovation is an improvement of an existing technology, product, system, or method of creating or doing something.

At this stage in human evolution, invention is a rare occurrence.

Intellectual Property as it relates to Engineering Design and Development





Patents

A patent is a grant made by the government that proves the creator of an invention for the sole right to make, use, and sell that invention for a set period of time.

A patent must be each of the following:

- Novel - never before seen
- Useful - improve quality of life
- Nonobvious - be something common in everyday life



Provisional Patents

A provisional patent is a less expensive and detailed application that allows one year's protection to provide time to further investigate or pursue licensing before filing a regular patent application.



Licensing and Royalties

Licensing is the granting of permission to use intellectual property rights, such as trademarks, patents, or technology, under defined conditions.

Royalties are a share of the proceeds or product paid to the owner of a right, as a patent, for permission to use it or operate under it.



Copyright, Trademark, Trade Secret

Copyright is the exclusive legal right to reproduce, publish, sell, or distribute the matter and form of something (as a literary, musical, or artistic work).

Trademark is a symbol, design, word, letter, etc. used by a manufacturer or dealer to distinguish a product or products from those of competitors.

Trade Secret is something (like a formula) which has economic value to a business because it is not generally known or easily discoverable by observation and for which efforts have been made to maintain secrecy.



Business Plan

If you wish to start a business based upon an invention or innovation and need investors, such as a bank loan or line of credit, you must create a business plan.

The Business Plan is a presentation that tells about your product, the market for it, and how you plan to use investment money.

Many people create and sell their own product in a limited form to prove its worth in the marketplace before entering agreements or asking for investment.



Helpful Links

[US Department of Justice website on Intellectual Property](#)

[Step by Step Guide to Creating a Business Plan](#)