

# Intellectual Property Outline: Middle School, Ages 13-15

~ 30 MINUTES ~

*Note: The following may provide a turnkey solution for your presentation but is offered simply as a starting point. Please feel free to selectively use sections as appropriate for your own tailored session. To the extent that it is helpful, please refer audience members to the more encyclopedic catalog of materials that can be found at [MichelsonIP.com](http://MichelsonIP.com).*

## PART 1: INTRODUCTION TO IP

*What is IP? High level overview of each subsection with a focus on patents.*

- *Types of IP; Patents, Copyrights, Trademarks, and Trade Secrets*

### Overview of IP: Defining Patents, Copyrights, Trademarks, & Trade Secrets

*The legal foundation for U.S. intellectual property rights was laid by the Founders in 1787, in the very first Article of the U.S. Constitution, which outlined the precepts of our democratic society. In Article 1, Section 8, Clause 8 of the Constitution, Congress was given the authority to “promote the progress of Science and useful Arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”*

- Patents: *A patent is an intellectual property right granted by the government of a nation to an inventor that gives him or her the exclusive right to the invention for up to 20 years, in exchange for disclosing the details of the new technology to society for its ultimate benefit.*
- Copyright: *A copyright is an intellectual property right granted by a government to the author of an original literary, dramatic, musical, artistic, or other eligible creative work. It gives the creator the exclusive right for a limited time to control how the work is published, reproduced, performed, or displayed.*
- Trademarks: *A trademark is an intellectual property right granted by a government to an individual, business, or legal entity that creates and uses a distinctive word, name, symbol, or device to distinguish its products or services from those from any other entity in the marketplace.*
- Trade Secrets: *Trade secret law is a source of protection for intellectual property that serves as an alternative to patent or trademark law; requiring that the intellectual property not be publicly disclosed.*

## PART 2: IN DEPTH REVIEW OF PATENTS IN THE U.S.

### The History of Patents & The U.S. Patent System

#### **The History of Patents - *What are the origins of the patent system?***

- Patent-like incentives first appeared in ancient Greece in 500 BC, and continued to spread throughout Europe through the 1700s. Early patent systems reinforced the wealth of elites instead of the welfare and productive capacity of the whole of society.
  - British patent application fees, for example, were more than 11 times the per capita income of the average citizen. This restricted innovation to a small sector of the population.

#### **Foundations of Patent Protection - *What is the rationale for issuing a patent?***

- As the first country in the world to incorporate intellectual property rights in its national constitution, America's founders viewed intellectual property rights as vital to the nation's economic survival.
  - They consciously designed a patent system that would do what no patent system had ever done before — **stimulate the inventive genius and entrepreneurial energy of the common man.**
- Today's U.S. patent system satisfies two broad goals:
  - Stimulates invention: The inherent property rights of inventors and authors to their creations are protected, thereby helping to ensure that the wellsprings of creation and productivity do not dry up for lack of incentive.
  - Is an effective tool for knowledge sharing: The benefits derived from these inventions and creations are ultimately harnessed to the public good through disclosure, thus promoting the progress of the nation and "the general welfare" of its citizens.

#### **The Patent System and U.S. Economic Growth - *How has the patent system supported U.S. Economic Growth?***

- The U.S. patent system stimulated invention and economic growth and quickly became the unrivaled leader of the Industrial Revolution.
  - By 1870, the U.S. was patenting more than 5x the number of inventions as Britain, even though their populations were nearly equal in size.
- The patent system's central role in fostering innovation can be seen in the patenting spikes that occurred with every major industrial breakthrough.
  - 1880s - major surge in patenting, with the annual number of new patents issued jumping from 12,000 in the 1870s to ~20,000 in the 1880s. This patent boom corresponded with rapid advances in the emerging railroad, telegraph, telephone, and electric light and power industries.
  - 1900s - similarly, during the birth and early-stage growth of the automobile and aircraft industries. Patents granted at this time doubled from 20,000 per year to 40,000 per year.

- 1980s - when the personal computer and emerging high-tech industries propelled us toward the age of the Internet. Patenting levels then increased from approximately 80,000 to 100,000 each year.
- Today, with the rise of the internet, social media, and smartphones over the last two decades, the number of patent applications filed each year with the USPTO has surged fourfold. In 2014, the USPTO received 578,802 applications, 300,678 of which received a patent.

## Requirements and Limitations of Patentability

### **Criteria for Patenting - *What, Exactly, Can You Patent?***

- “The Patent Act,” says that a machine, manufacture, process, or composition of matter can be patented if it demonstrates the following three characteristics:
  - Novelty
  - Non-obviousness, and
  - Utility
- Patentable inventions fall into one of two categories: products or processes.
  - You cannot patent ideas; the most important reason why one thing is patentable and another is not lies in the difference between ideas and applications.
  - You cannot patent mathematical formulas, a law of nature or a natural phenomena; they all exist independently of human intervention, making this knowledge freely available.
- The highest hurdle facing inventors is non-obviousness requirement; the vast majority of rejections at the patent office are for obvious reasons.
- **Camera phone example:**
  - Inventing the camera phone was not so obvious in meeting the non-obviousness patent requirement.
  - While composed of well-known and widely-available components, combining the two did satisfy the non-obviousness requirement because it became more than the sum of its parts, and met a large and previously-unfilled need in the marketplace.
  - This is apparent as we see millions of people who take selfies everyday.

## Patent Enforcement Actions

### **Enforcing Patent Rights - *How are patent rights protected?***

#### Patent Law and Enforcement

- Patents can be enforced by their owners in U.S. federal courts. It is up to the owner of the patent, the “patentee,” to enforce it against infringers by filing a civil case in federal court for patent infringement.

- Patent infringement occurs regardless of the infringer's lack of knowledge of the patent or their intent to infringe it.
- In modern times, patent enforcement has become a long and very expensive process. Patent litigation serves a vital function in society by settling the validity and disputed ownership of patent rights so these can be commercialized into new products, services, and medical treatments.

### Patent Infringement

- If the patentee believes their patent is being infringed, they should first hire a patent trial lawyer; the lawyer will evaluate the patent and the accused device or process to provide a legal opinion about whether or not an infringement exists.
- If infringement is found, options for pursuing a patent infringement claim include:
  - Demand that the alleged infringer stop infringing and pay damages for past infringement.
  - Offer the alleged infringer a license to practice your invention for money, called "royalty."
  - Ignore the infringement, or postpone any action for a time.
  - File a patent infringement lawsuit in federal court against the alleged infringer.

### Conclusion

Intellectual Property (IP) rights are vital to a nation's economic survival; IP comprises an astonishing 38 percent of total U.S. GDP today, and represents 80 percent of the market value of all publicly traded companies in the U.S. As a result, any young person today who does not understand the basics of intellectual property--and its value and role in science, business, and arts professions--will find him or herself at a distinct disadvantage in the world of tomorrow.

- Over the last 40 years, intellectual property has grown from an arcane, narrowly-specialized legal field into a major force in American social and economic life.
- Intellectual property is now the chief engine of wealth creation and economic growth in the world.
- America's patent system helped create the most successful economy on the face of the earth. The Founders designed the world's first democratized intellectual property system, precisely because they believed in the ingenuity of the common citizen.

## PART 3: SUPPLEMENTAL IP SECTIONS

### Copyright

- Copyrights are automatically granted to an author at the moment of creation; as a result the work is protected by copyright laws without registration.
- Patents and copyrights seemingly try to accomplish similar goals, protect the property rights of creators, but they are distinct from one another in important ways.
  - Determining merit can be far more subjective for a creative work than for patent eligible inventions. For this reason, the U.S. does not have an examination system to determine whether a creative work merits copyright protection. This is not the case with patents.
- **Copyright infringement case in the music industry:**
  - The most significant copyright infringement case in recent years concerning music was the March 10, 2015, verdict against Robin Thicke and Pharrell Williams, the performer and primary songwriter-producer of the 2013 pop hit “Blurred Lines.”
  - A federal jury ruled that Thicke and Williams committed copyright infringement by using elements of the 1977 Marvin Gaye classic “Got to Give It Up.” The jury awarded Gaye’s family \$7.3 million.
  - The case is significant as it challenges the growing practice in contemporary music production of incorporating elements of the work of other artists.

### Trademarks

- The original purpose of a trademark was to indicate the origin of goods and services to protect the public from confusion.
  - Trademarks developed into guarantees of quality and an avenue for branding.
- **Nike trademark “Swoosh” example:**
  - Nike’s “Swoosh” logo plays a significant role in the company’s \$106 billion shoe and apparel business.
  - Nike registered the logo with the U.S. Patent and Trademark Office in 1971. Nike founder paid a mere \$35 for the design but today, the logo is worth an estimated \$20 billion.
  - The logo is also recognized around the world as a symbol of Nike’s quality workmanship and design. Also, its vital role in protecting Nike’s market share and reputation explains why the company so strenuously protects its trademark rights from being infringed by counterfeiters.
- Trademarks offer similarities with other IP rights through:
  - The power to encourage and reward creative enterprise.
  - The goal of marshaling the benefits of creative endeavor to the public good.
- Trademarks are different from other IP rights in three key areas:

- The legal foundation comes from the commerce Clause of the Constitution, giving Congress the authority to regulate interstate commerce and enact whatever is necessary.
- They are not limited in duration; trademarks are granted in perpetuity as long as they are not abandoned by the owner.
- They exist only in conjunction with commercial activity. A trademark cannot be obtained by mere adoption, they can only be acquired through commercial use via the sale of goods and services.

## Trade Secrets

- Trade secret is an alternative and valuable way to protect intellectual property. Trade secret law requires that the intellectual property not be disclosed, whereas patent and trademark law require just the opposite.
- **Coca Cola trade secret example:**
  - The vault which holds the secret formula for Coca Cola may be the most valuable trade secret in the world.
  - The company presents the formula as a closely held trade secret only known by a few employees, as a key publicity, marketing, and intellectual property protection strategy.
- Advantages of trade secret law:
  - Trade secrets provides indefinite future protection, so long as the trade secret stays a secret.
  - Trade secret protection prevents the disclosure or use of the trade secret by one whom the secret was disclosed in confidence.
- Disadvantages of trade secret law:
  - Trade secret law does not offer any protection against the use of the same intellectual property that is independently derived or reverse engineered by a competitor.

## KEY TERMS

**Copyrights** - A copyright is an intellectual property right granted by a government to the author of an original literary, dramatic, musical, artistic, or other eligible creative work.

**Intellectual Property** - Creations of intellect, such as inventions and artistic works.

**Non-obviousness** - A patent requirement that ensures that the idea is inventive.

**Novelty** - A patent requirement that ensures that the idea is new.

**Patent** - A patent is an intellectual property right granted by the government of a nation to an inventor that gives him or her the exclusive right to the invention for up to 20 years, in exchange for disclosing the details of the new technology to society for its ultimate benefit.

**Patent Infringement** - Is a strict liability violation where you do not need to know that you are infringing a patent, or that a patent even exists to be liable for patent infringement.

**Processes** - or methods, are defined as a means to an end—either a means of doing something new, like being able to pay for purchases directly from your smartphone, or a new way of doing something old, like using “pinch, swipe, and zoom” gestures on a touchscreen, rather than clicking drop-down menus, to manipulate text and images on a smartphone.

**Products** - Are physical things, manufactures, or compositions of matter.

**Trademarks** - An intellectual property right granted by a government to an individual, business, or legal entity that creates and uses a distinctive word, name, symbol, or device to distinguish its products or services from those from any other entity in the marketplace.

**Trade Secrets** - A law that requires that the intellectual property to be protected not publicly disclosed.

**Utility** - A patent requirement that ensures that the idea is usable and beneficial.

**Utility Patents** - The most common type of patents, which preclude others from making, using, or selling the invention during the term of the patent, which begins on the grant date and ends 20 years from the filing date.

**Royalty** - Money by offered the alleged infringer a license to practice your invention