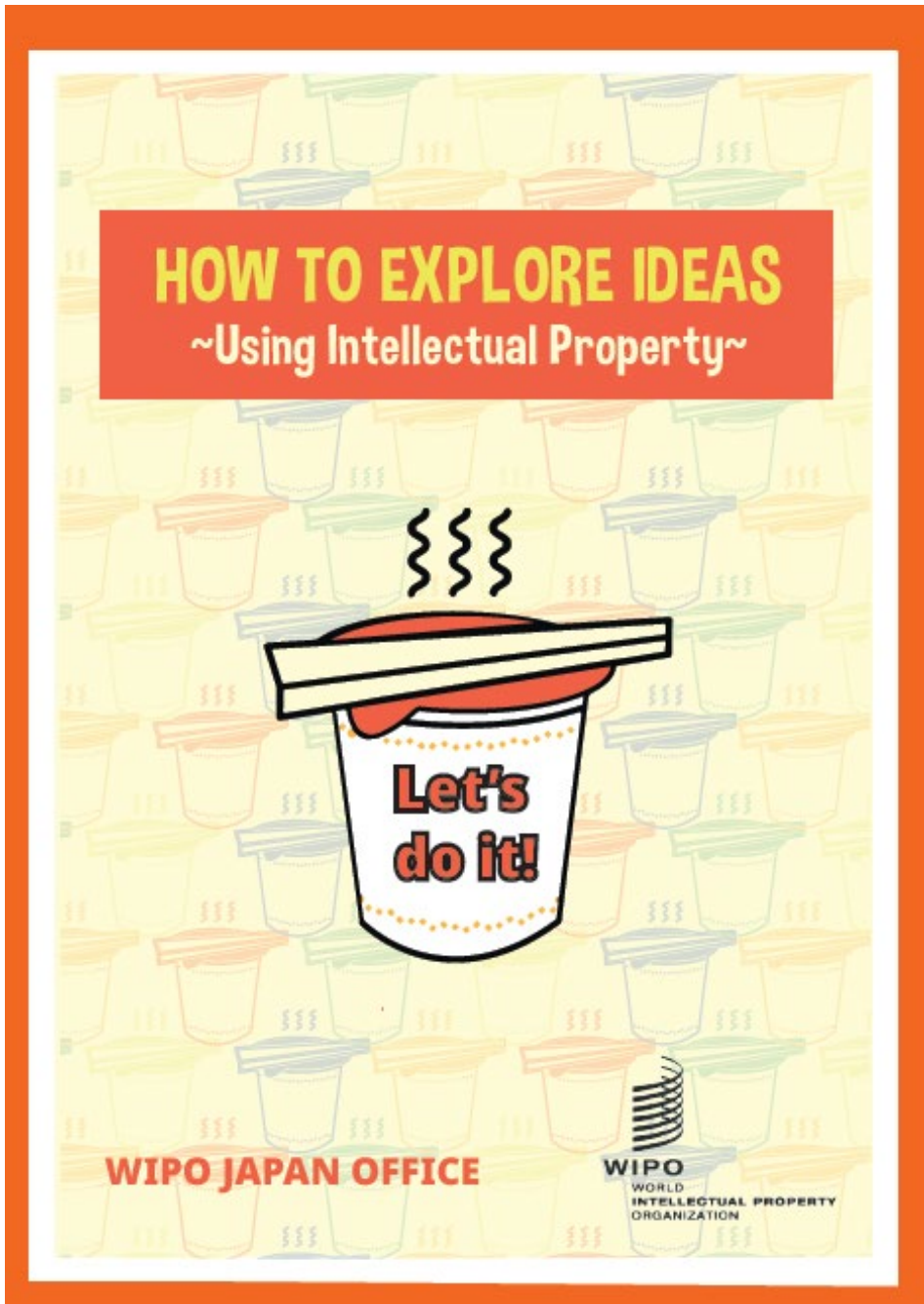


**“HOW TO EXPLORE IDEAS”**  
Guidebook for educators and lectures  
(The Teaching Note for lectures)  
**Revised edition**



Funded by WIPO Funds-In-Trust Japan Industrial Property Global

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## **1 . Introduction – Why is this book important?**

Ideas and creative abilities to solve problems in the society and around us become innovation. In delivering the inventions to people and safely applying those inventions require use of IP. It is also important to respect the creations and creativity of others in order to maintain inventive society that can solve the challenges it faces.

WIPO Japan Office published an educational material 'How to Explore Ideas' to illustrate the importance of creativity and respect for creativity in an easy to learn approach. It explains the importance of creative thinking and the roles of IP by drawing an example of cup noodles invented by Momofuku Ando, which is now an internationally consumed product. It also helps readers with develop their creativity. 'How to Explore Ideas' can be widely used by IP beginners, students and educators who brings creativity and IP into classrooms.

In addition, the book guides for educators and teachers on how to make the most effective use of this teaching material is summarizing key points and providing ideas as to how to use it in a lesson format.

We hope that many educators and instructors will use this guidebook to deepen their own knowledge and understanding of intellectual property, and at the same time, work in the classroom to increase the creativity of young people and promote their understanding of intellectual property.

**WIPO Japan Office**

## 2. How is it taught?

This book teaches students how to discover and understand problems around them, and develop ideas to solve them. It also explains the use of intellectual property in protecting those solutions. As an example, the book introduces Momofuku Ando's invention of instant noodles, now famous around the world, and traces the history of how "Chicken Ramen" and "Cup Noodles" developed into a business.

Students learn about the existence and importance of intellectual property, simultaneously developing their creative thinking skills as they look to develop ideas that serve as solutions to the problems they find around them. In the process, we hope they come to understand that anyone can become a creator or inventor, as well as gain respect for those who already are.

## 3. What's in the book?

The textbook "How to Explore Ideas Using Intellectual Property" is divided into five topics, based around the story of Momofuku Ando's invention of instant noodles:

- 1) Hints are everywhere
- 2) Let's develop our ideas
- 3) Let's change our point of view
- 4) Aim high!
- 5) Let's do it!

The image shows a page titled "Contents" with a yellow background. It lists five topics, each with a colored star in the top right corner: 1 (orange star), 2 (red star), 3 (green star), 4 (yellow star), and 5 (blue star). A cartoon character named Michi is in the bottom right corner with a speech bubble saying "Let's start!".

Contents	
<b>1 Hints are everywhere</b> <b>Instant noodles and Intellectual property rights</b> <ul style="list-style-type: none"><li>• About 100 billion servings of instant noodles are eaten around the world every year (p. 6)</li><li>• This is how "Chicken Ramen" was born, the world's first instant noodle! (p. 8)</li><li>• "Chicken Ramen" and intellectual property rights (p. 12)</li></ul>	<b>4 Aim high!</b> <b>Creative thinking and Intellectual property rights</b> <ul style="list-style-type: none"><li>• "Creative thinking" (p. 26)</li><li>• Sustainable creative thinking (p. 27)</li><li>• Intellectual Property right system diagram (p. 28)</li></ul>
<b>2 Let's develop our ideas</b> <b>"Cup Noodles" and intellectual property rights</b> <ul style="list-style-type: none"><li>• The invention of "Cup Noodles" (p. 14)</li><li>• "Cup Noodles" and intellectual property rights (p. 16)</li></ul>	<b>5 Let's do it!</b> <ul style="list-style-type: none"><li>• Different flavors and packaging of instant noodles from all over the world! (p. 30)</li><li>• Creative activities (p. 32)</li><li>• Message (p. 38)</li><li>• Notes (p. 38)</li></ul>
<b>3 Let's change our point of view</b> <b>Intellectual property rights create a rich society</b> <ul style="list-style-type: none"><li>• What else is there? From ideas to IP (p. 18)</li><li>• What else is there? Products protected by industrial design and trademark rights (p. 22)</li><li>• Let's respect creations (p. 24)</li></ul>	

Each topic is identified by a different color of star (★) in the upper right corner of the page. An orange star indicates a page on creative thinking, while a green star indicates a page on intellectual property.

## 4. Who is this book designed for?

Although written for middle and high school students as intended audience, by altering how it is used, teachers of university or elementary school may be able to refer to it as well.

## 5. Learning objectives

### – What is there to be learned here?

The following learning goals are set for each topic of this textbook:

#### **1) Hints are everywhere**

Through the story of the development of Momofuku Ando's instant noodles invention, "Chicken Ramen," students learn how he worked out his ideas based on problems he saw around him. This section talks about how to transform ideas into products and protect them from counterfeiting. Students learn how Momofuku Ando expanded the instant noodle market through the use of intellectual property rights such as patents, industrial designs, and trademarks.

#### **2) Let's develop our ideas**

In this topic, students learn the story of how Momofuku Ando improved upon his "Chicken Ramen" invention to create his next product, "Cup Noodles." Students learn that even after a problem-solving idea is developed into a product, new problems may arise, followed again by new problem-solving ideas, and so on. We call this the "intellectual creation cycle". Students also learn about the different types of intellectual property protection available to protect different ideas, including patent rights, utility model rights, industrial design rights, trademark rights, etc.

#### **3) Let's change our point of view**

In this topic, students will learn about other useful inventions, which were also created based on problems facing the inventors. Students will learn that by changing their points of view, they can protect and develop intellectual property not only through a patent, but also by making use of industrial design and trademark rights. Through a "creative mind" perspective, the students will also learn about the importance of respecting the ideas of other creators and inventors.

#### **4) Aim high!**

In this topic, students will put into practice what they learned in topics 1, 2 and 3 by considering problems they face in their daily lives and proposing ideas to solve them. They are encouraged to change their points of view to focus on creative thinking and the intellectual property rights system.

#### **5) Let's do it!**

In this topic, students will work on the activity titled "What kind of instant noodles would you make?" in order to experience the process of problem-finding, idea creation, and intellectual property protection. By doing so, we hope that students will learn to think positively and value their own ideas.

From the next page, learning objectives of each item will be explained in more detail.

## 5. Learning objectives

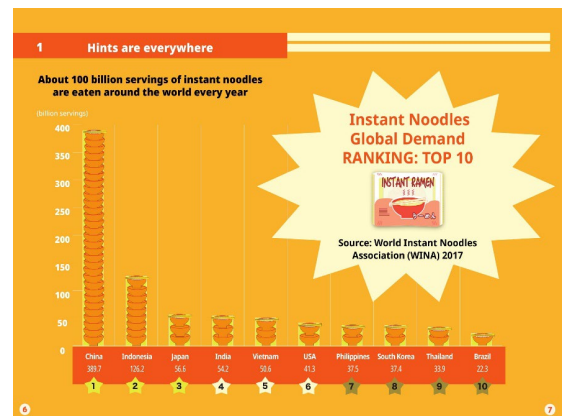
### 1) Hints are Everywhere

Here, students are taught about the story of Momofuku Ando and the birth of the instant noodles called "Chicken Ramen." Through this, they learn not only how to find hints in problems around them for creating new ideas and putting them into practical use as products, but also how to protect their ideas as intellectual property (patent, design, trademark), safeguarding them from imitation by others and expanding their market.

⊖ **About 100 billion servings of instant noodles are eaten around the world every year**

This section teaches about the volume of instant noodles eaten around the world. Through this knowledge, students learn about the size of the market and what in what countries they are consumed, giving them a sense of their actual influence. **Since the rankings are from 2017, it would be good to compare the current rankings and ask for a taste of each country (see p. 30 and 31).**

⊖ **This is how "Chicken Ramen" was born, the world's first instant noodles** Here, students learn about the circumstances around Momofuku Ando's creation of instant noodles, and what inspired him to do it. It is important for them to become conscious of the imagination and creativity that serve as the driving forces behind generating ideas.



1 Hints are everywhere

This is how "Chicken Ramen" was born, the world's first instant noodles!

**It all began in Japan.**

Momofuku Ando's previous business had failed and he lost all his properties.

He remembered that, after World War II, hungry people used to line up at food stalls for a long time just to have a bowl of ramen noodles.

**No money  
No company  
No employees**

That's it! Let's invent some noodles that can be easily prepared at home!

However, he still had imagination and creativity.

This is how the world's great invention, "Chicken Ramen" was born in a small and humble work shed.

## 5. Learning objectives (cont'd)

⊗ This is how "Chicken Ramen" was born, the world's first instant noodles. Here, students learn how Momofuku Ando identified a problem, found an idea for solving it, developed it to invent "dehydration by flash-frying," and patented it. **Remind them that something familiar can be a clue (in this case, tempura).**

### ④ "Chicken Ramen" and intellectual property rights

Aside from the patent for method of manufacture, students also learn about how the package design and naming trademarks are protected as intellectual property (IP), and how the market is expanded while these are protected from imitation by other companies.

### 2) Let's develop our ideas

Here, the story is told of how the instant noodle product known as "Chicken Ramen" was further developed to create "Cup Noodles." Students learn that when you actually create a product based on an idea created from a look at problems around you, the next problem then appears before you, and you create new ideas based on that. It is an ongoing process of finding problems and developing ideas. **Page 27 shows sustainable creative thinking and encourages students to visualize.** Not only that, these multiple ideas can be protected in a variety of ways, based on type of intellectual property type (for example: patent rights, utility model rights, design rights, trademark rights, etc.)

**1 Hints are everywhere**

This is how "Chicken Ramen" was born, the world's first instant noodles!

**Problem**  
I want to create noodles that can be stored for long periods and prepared at home, using only boiling water.

**Idea**  
Let's dry the noodles by frying them in hot oil!

**Invention**  
Dehydration by flash frying

Figuring out a method of drying seasoned noodles was no simple task. After trying and failing several times, he managed to discover a good idea. Momofuku Ando always conducted his experiments by following five development principles.

**5 development principles**

1. Must be delicious.
2. Must be able to be stored for a long period of time.
3. Must be easy to prepare.
4. Must be affordable.
5. Must be safe and hygienical.

**[Hint]** Tempura offered a hint!

One day, when Momofuku Ando went into the kitchen, his wife was frying tempura. Tempura is a Japanese dish that consists of vegetables, fish and other ingredients coated in flour mixed with water, fried in hot oil so that the water evaporates from the coating. The scene inspired Momofuku Ando.

**[Implementation]** "Chicken Ramen" release

Frying noodles in hot oil expels the moisture, making them almost completely dry. Additionally, when boiling water is poured over fried noodles, the water is absorbed through small holes made during dehydration. This process quickly restores the softness of the noodles.

The invention of "dehydration by flash frying" became the main technology and patent of instant noodles. In order to make a product available for sale, there are many difficult problems to be solved aside from simply creating the invention. With support from his family and without giving up, Momofuku Ando made every necessary effort to release his product. In 1958, he finally started selling the world's first instant noodles, "Chicken Ramen."

**1 Hints are everywhere**

"Chicken Ramen" and Intellectual Property (IP)

"Chicken Ramen" became a big hit. However, many low-quality counterfeit imitations of the product also appeared on the market. Thanks to patents, industrial designs and trademark rights, "Chicken Ramen" could be protected from other companies' fake products.

In the end, an industrial association for the product was created. The quality level of the instant noodles was guaranteed and companies that were part of this group could use these patents as a license. This way, consumers started trusting instant noodles more and more, growing and expanding the market.

**Problem** ⇌ **Idea** ⇌ **IP**

**Product**

- Must be easy to store for long periods of time.
- Must be easy to prepare.

**Packaging**

- Consumers must understand the new product.
- Transparent window in the package makes the product contents visible.

**Naming**

- Consumers must understand what kind of product it is.
- Must be easy to remember and become familiar with.
- Noodles are seasoned with chicken soup.

**Dehydration by flash frying (patent)**

**Packaging (industrial design)**

**Chicken Ramen (trademark)**

## 5. Learning objectives (cont'd)

### 2) Let's develop our ideas (cont'd)

#### ⊖ The invention of "Cup Noodles"!

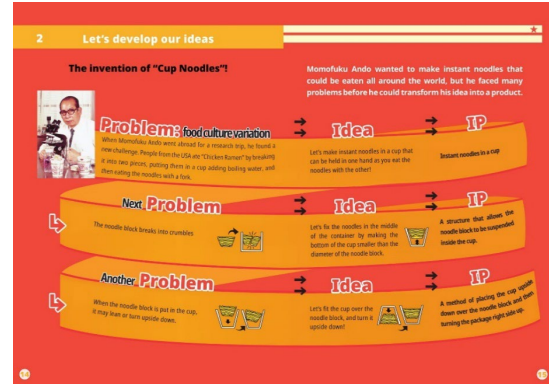
This section talks about how Momofuku Ando actually created his product, based on an idea he created looking at a certain problem, and how a new problem appeared which led him to create a new idea which brought about the invention of "Cup Noodles." This specific example teaches students about the ongoing process of problem discovery and idea creation (creative thinking). **Tell them that the ideas never stop, from the concept of Cup Noodles to making it even better.**

#### ⊖ "Cup Noodles" and intellectual property rights

Here, "Cup Noodles" are used as a concrete example in how multiple ideas may be protected in a variety of ways based on type of intellectual (for example: patent rights, utility model rights, design rights, trademark rights, etc.). In learning about this topic, it is ideal to be able to have cup noodles actually available, and have access to reading materials regarding patent rights, utility model rights, design rights, and trademark rights, etc. **It would also be a good idea to give them an assignment to find examples of intellectual property on their own from among things that are familiar to them.**

### 3) Let's change our point of view

Here students learn of other examples, aside from instant noodles and "Cup Noodles," in which everyday problems became hints towards the creation of ideas that led to useful products. They are taught how, by changing their point of view, they can create intellectual property limited not only to inventions, but that also includes designs and trademarks qualified for protection.





# 5. Learning objectives (cont'd)

## 3) Let's change our point of view (cont'd)

### ⊖ What else is there? From ideas to IP

This section teaches about specific instances of intellectual property other than instant noodles and "Cup Noodles." Examples include design ideas such as painless needle injection based on the structure of a mosquito's mouth, extreme water repellent technology based on the structure of lotus leaves, and a bullet train based on the beak of a kingfisher.

**3 Let's change our point of view**

**What else is there? From ideas to IP**

**Problem** → **Hint** → **Idea** → **Invention/IP**

- Let's make a painless injection syringe**
  - We don't notice when mosquitoes bite us.
  - And sharp because their mouth tip is serrated!
- I don't want to get my hands wet when I fold up an umbrella**
  - Lotus leaves repel water and don't get wet.
  - That's because they have countless small protrusions on their surface.
- Let's reduce the bullet train's air resistance and avoid that coughing sound when it enters a tunnel.**
  - When kingfishers hunt fish, they dive into the water while flying at a high speed.
  - That's because their beak is sharp and has a square pyramidal shape.

**Invention: Painless needle injection**

**Invention: Extremely water-repellent umbrella**

**Industrial Design: Bullet train**

### ⊖ What else is there? From ideas to invention

Here, students learn about what problems Thomas Edison and Prof. Satoshi Omura considered when inventing the incandescent light bulb and ivermectin (a drug that protects humans from parasites), respectively.

**3 Let's change our point of view**

**What else is there? From ideas to IP**

**Problem** → **Idea** → **Invention**

**Thomas Edison**

**Problem**: "I want to make lights that radiate for a long time."

**Idea**: Placing a light-conducting filament that shines for many hours inside a vacuum container.

**Invention**: Carbonizing bamboo from Japan and using it as the filament for an incandescent light bulb.

**Prof. Satoshi Omura**

**Problem**: "I want to take microorganisms out of natural soil and develop a chemical substance that will be useful to people!"

**Idea**: Finding a substance that kills parasites of animals, and using that to craft a new medicine.

**Invention**: "Ivermectin" Thanks to this invention, every year, 3 billion people are protected from parasites.

### ⊗ What else is there? Products protected by industrial design and trademark rights

This section teaches students about products other than inventions that are protected by as intellectual property, including through design rights and trademark rights. These include products protected under design rights including flat-panel televisions, smartphones and PET bottles; and world brands protected under trademark rights including two-legged walking robot ASIMO, basketballs, and Coca-Cola.

**3 Let's change our point of view**

**What else is there? Products protected by industrial design and trademark rights**

**Industrial Design**

- Flat-panel television**: Combining screen technology and size. LED made it possible to create a thinner and lighter television. This innovative design allowed people to use television in different ways, creating new lifestyles.
- Smartphone**: Touchscreen mechanisms reduced the number of buttons on a device. The birth of this technology led to the design of the smartphone, which is cool and easy to use.
- PET bottle**:
  - Usability
  - Express the concept of the product
  - The design is adaptable to fit the environment and culture of the consumers
  - Brand strategy through design

**Trademark**

- Two-legged walking robot**:
  - Advanced
  - Step in Innovation
  - Mobility
  - A mark that appeals to customers by introducing them to a company's new technology.
- Basketball**: This ball is certified by the International Basketball Federation. A mark that highlights the product's quality and high-level technology to consumers.
- Global brands**: Increases the value of a company. Examples: TOYOTA, Coca-Cola, Apple.

### ④ Let's respect creations

This section teaches about the importance of simultaneously having both the perspective of a creative mind, creating and inventing ideas using problems as hints; and a intellectual property mind, respecting and protecting these created ideas, their inventors and creators.

**3 Let's change our point of view**

**Let's respect creations**

Counterfeit products might harm the health of the consumers and expose them to danger.

The internal liquid from counterfeit lithium-batteries can leak; it may catch on fire or even cause an explosion.

Counterfeit products can ruin the profits and sales of the original brands, or even damage the product's image to customers.

As first glances, original and counterfeit products may look identical, but there is a great difference in quality between them.

When buying counterfeit products, they can break very easily, meaning that you, the consumer, will suffer a loss. When buying a counterfeit product, you are sabotaging the company's desire to create innovation and produce new inventions.

It is important to constantly develop two mindsets: "to stretch the power of thinking creations (creative mind)" and "to respect creations (IP mind)".

**creative mind** → to give birth to new ideas

**IP mind** → to respect everyone's ideas

## 5. Learning objectives (cont'd)

### 4) Aim high!

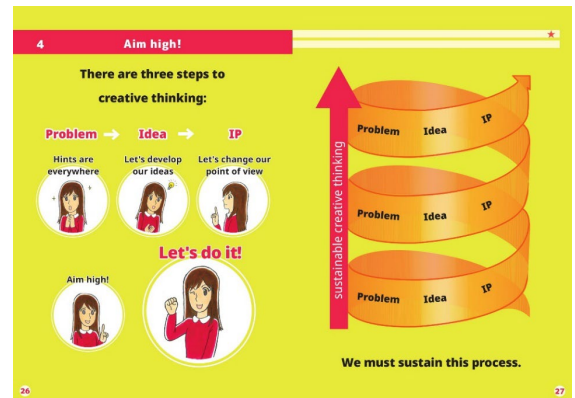
This section is about deepening an understanding of creative thinking and the intellectual property rights system, beginning with the lessons learned in parts 1-3, and encouraging students to find hints around them, develop their ideas, and change their point of view.

### ⊖ Creative thinking has three steps

Students are taught about creative thinking, and encouraged to find problems around them, use them as hints to create ideas, and develop them, changing their viewpoint to protect them as intellectual property (inventions, designs, trademarks, etc.). They learn about the importance of an ongoing process in which they then uncover new problems, and create new ideas for these as well.

### ⊖ Intellectual property rights

This section teaches how things in our everyday lives exist because of a variety of ideas that are protected as intellectual property under things like patent rights, industrial design rights, trademark rights, utility model rights, copyrights, plant breeders' rights, trade secrets, trademark rights, and geographical indications.



## 5. Learning objectives (cont'd)

### 5) Let's do it!

It is important in class to get students to think positively and compose their dreams, in which they discover their own value. This is done by including the theme of what kind of instant food the students themselves might like to create, getting them to experience first-hand the process of finding problems, creating and developing ideas, and protecting their intellectual property.

⊖ Instant ramen is eaten all over the world in different flavors and packaging All over the world, the flavor and packaging of instant noodles are changed to suit the country in which they are being sold. Students learn about the product development ingenuity used to adapt a product to cultures around the world.



### ⊖ What kind of instant food would you make?

Here, the students think about what kind of instant food they might make (not limited to instant noodles). They work alone or in groups and exchange ideas. It is a good idea for them to be conscious of problems with existing instant foods and suggest ideas keeping in mind whose problem (daily concern) is being approached, and what is involved.

**5 Let's do it!**

Problem → Idea → Patent  
Industrial design  
Trademark

**What kind of instant food would you make?**

Product name:

Flavor:

Ingredients:

Package design:

How are you going to make your product?:

Best feature(s):

## 5. Learning objectives (cont'd)

### 5) Let's do it! (Cont'd)

⊗ **Finding out problems! What troubles do you have in your daily life?** This is an opportunity for hands-on creative thinking practice. Students should be encouraged to think about problems in their daily lives and brainstorm about what kinds of products or services they would like to see that might solve them.

5 Let's do it!

Finding out problems!  
What troubles do you have in your daily life?

Is there anything that makes you think "I wish I had something like this?"

At school

At home

When you are playing

In the city

In the society as a whole

④ **Is there anything that makes you think, "I wish I had something like this"?**

Once ideas have been created to solve the problems, students should think about how to develop their ideas and protect them as intellectual property. Ideally this is approached at the same time as a review of the intellectual property rights system.

5 Let's do it!

Let's find some ideas to solve these problems!

How are you going to protect these ideas?

Problem

Idea

Idea

IP

### ⑤ Message

Here students are taught the importance of thinking positively, and composing the dreams that help them discover their own value.

Message

Think Positive  
Love yourself  
Paint your dreams

Notes

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## 6. Sample classes using the teaching materials <Specific examples of time allocation> One 50-minute class time slot (Let's Learn about Intellectual Property Rights)

<b>&lt;Introduction&gt; 4 minutes</b>		
Pages 1 to 5	Title and summary explanation, outline of the lecture	4 min.
<b>&lt;1. Hints are everywhere&gt; 15 minutes</b>		
Pages 6 to 7	Explanation about the instant noodles market	3 min.
Pages 8 to 9	The origin of "Chicken Ramen"	3 min.
Pages 10 to 11	The "Chicken Ramen" invention	5 min.
Pages 12 to 13	"Chicken Ramen" and intellectual property	4 min.
<b>&lt;2. Let's develop our ideas&gt; 12 minutes</b>		
Pages 14 to 15	The birth of "Cup Noodles"	4 min.
Pages 16 to 17	"Cup Noodles" and intellectual property rights	4 min.
	Specific examples of intellectual property rights - supplementary explanation	2 min.
	Introduction of Patent Publications	2 min.
<b>&lt;3. Let's change our point of view&gt; 9 minutes</b>		
Pages 18 to 19	From ideas to intellectual property	2 min.
Pages 20 to 21	From ideas to invention	2 min.
Pages 22 to 23	What else is there? Industrial design and trademark rights	2 min.
Pages 24 to 25	Let's respect what was created	3 min.
<b>&lt;4. Aim high!&gt; 5 minutes</b>		
Pages 26 to 27	Creative thinking	2 min.
Pages 28 to 29	Intellectual property rights	3 min.
<b>&lt;Q &amp; A/Summary&gt; 5 minutes</b>		
		<b>Total: 50 min.</b>

# One 50-minute class time slot (Let's Learn about Intellectual Property Rights from Instant Noodles)

<b>&lt;Introduction&gt; 4 minutes</b>		
Pages 1 to 5	Title and summary explanation, outline of the lecture	4 min.
<b>&lt;1. Hints are everywhere&gt; 15 minutes</b>		
Pages 6 to 7	Explanation about the instant noodles market	3 min.
Pages 8 to 9	The origin of "Chicken Ramen"	3 min.
Pages 10 to 11	The "Chicken Ramen" invention	5 min.
Pages 12 to 13	"Chicken Ramen" and intellectual property	4 min.
<b>&lt;2. Let's develop our ideas&gt; 12 minutes</b>		
Pages 14 to 15	The birth of "Cup Noodles"	4 min.
Pages 16 to 17	"Cup Noodles" and intellectual property rights	4 min.
	Specific examples of intellectual property rights - supplementary explanation	2 min.
	Introduction of Patent Publications	2 min.
<b>&lt;5. Let's do it!&gt; 12 minutes</b>		
Pages 32 to 33	Think for yourself: What kind of instant food?	5 min.
	Presentation	2 min.
	Voting on best idea	1 min.
Pages 24 to 25	Let's respect what was created	3 min.
<b>&lt;4. Aim high!&gt; 2 minutes</b>		
Pages 26 to 27	Creative thinking	2 min.
<b>&lt;Q &amp; A/Summary&gt; 5 minutes</b>		
		<b>Total: 50 min.</b>

## Two 50-minute class time slots (on the same day)

### (i) First period

<b>&lt;Introduction&gt; 4 minutes</b>		
Pages 1 to 5	Title and summary explanation, outline of the lecture	4 min.
<b>&lt;1. Hints are everywhere&gt; 15 minutes</b>		
Pages 6 to 7	Explanation about the instant noodles market	3 min.
Pages 8 to 9	The origin of "Chicken Ramen"	3 min.
Pages 10 to 11	The "Chicken Ramen" invention	5 min.
Pages 12 to 13	"Chicken Ramen" and intellectual property	4 min.
<b>&lt;2. Let's develop our ideas&gt; 12 minutes</b>		
Pages 14 to 15	The birth of "Cup Noodles"	4 min.
Pages 16 to 17	"Cup Noodles" and intellectual property rights	4 min.
	Specific examples of intellectual property rights - supplementary explanation	2 min.
	Introduction of Patent Publications	2 min.
<b>&lt;3. Let's change our point of view&gt; 9 minutes</b>		
Pages 18 to 19	From ideas to intellectual property	2 min.
Pages 20 to 21	From ideas to invention	2 min.
Pages 22 to 23	What else is there? Industrial design and trademark rights	2 min.
Pages 24 to 25	Let's respect what was created	3 min.
<b>&lt;4. Aim high!&gt; 5 minutes</b>		
Pages 26 to 27	Creative thinking	2 min.
Pages 28 to 29	Intellectual property rights	3 min.
<b>&lt;Q &amp; A/Summary&gt; 5 minutes</b>		
		<b>Total: 50 min.</b>

## Two 50-minute class time slots(on the same day)

### ( ii ) Second period

<b>&lt;5. Let's do it!&gt; 41 minutes</b>		
Pages 32 to 33	Think for yourself: What kind of instant food?	10 min.
	Discussion as group work Presentation	5 min.
	Voting on best idea	3 min.
Pages 34 to 37	"Is there anything that makes you think "I wish I had something like this?" Consider the intellectual property rights that correspond to these ideas	10min .
	Select one item as group work and discuss it Presentation	5 min.
	Voting on best idea	3 min.
Pages 24 to 25	Respect what was created	5 min.
<b>&lt;4. Aim high!&gt; 4 minutes</b>		
Pages 26 to 27	Creative thinking	4 min.
<b>&lt;Q &amp; A/Summary&gt; 5 minutes</b>		
<b>Total: 50 min.</b>		



## Two 50-minute class time slots (on different days)

### (i) First day

<b>&lt;Introduction&gt; 4 minutes</b>		
Pages 1 to 5	Title and summary explanation, outline of the lecture	4 min.
<b>&lt;1. Hints are everywhere&gt; 15 minutes</b>		
Pages 6 to 7	Explanation about the instant noodles market	3 min.
Pages 8 to 9	The origin of "Chicken Ramen"	3 min.
Pages 10 to 11	The "Chicken Ramen" invention	5 min.
Pages 12 to 13	"Chicken Ramen" and intellectual property	4 min.
<b>&lt;2. Let's develop our ideas&gt; 12 minutes</b>		
Pages 14 to 15	The birth of "Cup Noodles"	4 min.
Pages 16 to 17	"Cup Noodles" and intellectual property rights	4 min.
	Specific examples of intellectual property rights - supplementary explanation	2 min.
	Introduction of Patent Publications	2 min.
<b>&lt;3. Let's change our point of view&gt; 9 minutes</b>		
Pages 18 to 19	From ideas to intellectual property	2 min.
Pages 20 to 21	From ideas to invention	2 min.
Pages 22 to 23	What else is there? Industrial design and trademark rights	2 min.
Pages 24 to 25	Let's respect what was created	3 min.
<b>&lt;4. Aim high!&gt; 5 minutes</b>		
Pages 26 to 27	Creative thinking	2 min.
Pages 28 to 29	Intellectual property rights	3 min.
<b>Explanation of assignment &lt;5. Let's do it!&gt; 5 minutes</b>		
<b>Request/summary of group work presentation materials</b>		
	The assignment will be homework; the group will discuss it by the next class	5 min.
<b>Total: 50 min.</b>		

## Two 50-minute class time slots(on the same day)

### ( ii ) Second day

<b>&lt;5. Let's do it!&gt; 41 minutes</b>		
Pages 32 to 33	Assignment Group Work 1 presentation	15 min.
	Voting on best idea	3 min.
Pages 34 to 37	Assignment Group Work 2 presentation	15min .
	Voting on best idea	3 min.
Pages 24 to 25	Respect what was created	5 min.
<b>&lt;4. Aim high!&gt; 4 minutes</b>		
Pages 26 to 27	Creative thinking	4 min.
<b>&lt;Q &amp; A/Summary&gt; 5 minutes</b>		
<b>Total: 50 min.</b>		

# 7. Reference materials / Appendix

## Key points in each section:

### 1 ) Hints are everywhere

- What is it that makes a food that is eaten all over the world in the hundreds of millions?
- Instant noodles began in Japan.
- Why were instant noodles made in Japan? (understanding the state of society at the time of its creation)
- How were instant noodles made? (importance of capital investment, technology and other things)
- Research began in a humble work shed.
- Idea that it might be possible began from familiar ingredients and familiar tools. (ideas begin from familiar things)
- What do you want to do? (eat noodles easily at home)
- What do you need to achieve that?
- On your way you hit up against a wall!
- To accomplish something, you need new ideas.
- With tempura as a hint, the drying method was established→the basic noodle technology was established.
- Review: solve problems around you with things around you (ideas are around you).
- Great things are made out of familiar things!

### 2 ) Let's develop our ideas

- Instant noodles to "Cup Noodles" (instant noodles are improved to make "Cup Noodles")
- What is necessary to solve the problem of instant noodles?
- What do behind-the-scenes stories tell us about what might be necessary for further innovation?
- Further development is necessary in making an invention into a product (Understanding the challenges of business development).
- Constant thinking and creating resolves problems (sometimes a reversal of one's thinking becomes necessary)
- The finished outcome is protected by patent, design, and/or trademark.
- Can you become rich if you make something good? The world is not so simple.
- Business requires a variety of elements. If you develop an excellent product, you still need to work on its package and naming in order for it to sell.  
Cheap, tasty, safe→dehydration by flash frying→instant noodles→patent
- Being able to see inside reassures the customer→see-through package→design
- Familiar-sounding, easy-to-remember naming→"Chicken Ramen" →trademark

# 7. Reference materials / Appendix

## Key points in each section:

### 3) Let's change our point of view

- A needle based on a mosquito's mouth, water repellent technology for an umbrella based on a lotus leaf, bullet train design based on a kingfisher's beak, the folding of an antenna panel based on origami
- <What are patents for?>
- The stories of Edison and Satoshi Omura: from problems to ideas, inventions
- New technology develops industry and enriches our lives.
- <Examples of design and trademark protection>
- Flat-panel televisions as an example of adding value to products through integration with technology→improvement in sales
- A product made by X company is trustworthy.→source indicator (consumer is also protected.)
- X product is safe→quality assurance (consumer is also protected.)
- Improvement in product image→Improvement in brand value (benefit both to companies and to consumers)
- <What's wrong with counterfeit goods? >
- Imitations exist in the fields of patent, design, and trademark.
- The disadvantages of counterfeit goods (deprives the interests of right holders → deprives consumers of safety)

### 4) Aim high!

- In developing ideas, what is the best way to think about it? How should you best direct your mind's energy? How do you hit on ideas?
- Innovation begins from identifying familiar problems and hitting on ideas to solve them. This becomes what is called intellectual property.
- Repeating this spiral creates new technologies, develops industry, and enriches our lives. Sustainable creative thinking.
- The significance and importance of intellectual property

### 5) Let's do it!

- Comprehension that there are various taste preferences and dishes that vary depending on country and region.
- <What kind of instant food would you make?>
- Try to make a new kind of instant noodles that's even better than "Cup Noodles"!
- List your problems and build ideas from there (what flavor, what ingredients, how you would make it)
- Package design, naming
- <Work beginning with familiar ideas>
- Discover a problem→create ideas through solving the problem→protect the ideas as intellectual property
- Aim to enrich your and everyone's lives!
- What would improve life in school, at home, at play, in your town or city, or in society at large?
- Once you have created ideas based on the repeated response to problems, how do you then go about protecting them as intellectual property?
- <Message>
- "Think Positive" "Love Yourself" "Respect for the creation, inventor and creator" "Paint Your Dreams"