

# LESSON 4: Documentation & Journaling

## Lesson Script

**THIS SCRIPT IS TO BE USED AS A GUIDE TO ACCOMPANY THE SLIDE DECK FOR THIS YIP LESSON FOR PRESENTATION IN PERSON OR VIRTUAL (SYNCHRONOUS OR ASYNCHRONOUS-PRE-RECORDED).**

**TEACHER MAY ADD SPECIFIC GREETINGS AND COMMENTS AS NEEDED AND MAKE CHANGES TO MEET CLASS NEEDS USING THE LESSON PLAN IN THE YIP CURRICULUM.**



***[TEACHER MAY MODIFY INTRODUCTION TO LESSON AS NEEDED.]***

Welcome to the fourth session for our invention unit with the Young Inventors' Program.

Today we are going to cover YIP Lesson Four: Documentation and Journaling. We are also going to talk about your YIP Inventor's Journal.




By the end of today, you will understand how a patent protects an inventor and his/her invention ideas. You will also know how to document and record your invention process and the importance of keeping accurate details of your work by using your YIP Inventor's Journal as a logbook or record keeping tool.

# LESSON 4: Documentation & Journaling

**MATERIALS:**

- Pens/pencils
- Notebook or other paper for writing and drawing
- Do You Know Who Invented the Telephone? worksheet
- Teach Me S'more worksheet
- YIP Inventor's Journal
- Optional: ingredients for making a s'more (2 graham crackers, marshmallow, piece of chocolate)



Before we start, you will need the following materials.

- Pen/pencil
- YIP Inventor's Journal
- Do You Know Who Invented the Telephone? Worksheet
- Teach Me S'more Worksheet
- Optional: ingredients for making a s'more (2 graham crackers, marshmallow, piece of chocolate)

**NOTE:**



**TEACHER SHOULD HAVE DISTRIBUTED THE YIP INVENTOR'S JOURNAL FOR STUDENTS (PROVIDED) OR, ACCESS TO THE DIGITAL JOURNAL (FOUND ON YIP WEBSITE: [www.fuelthepark.org](http://www.fuelthepark.org)). THE DIGITAL VERSION CAN BE DOWNLOADED AND PRINTED OR USED ON ANY DEVICE.**

***IF PRE-RECORDING YOU MAY SAY:***

If you want to pause the video while you collect your things, go ahead and press Pause. Then hit Play when you are ready.

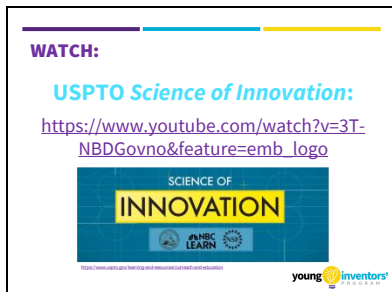
**WHAT IS A PATENT?**

A **patent** is a document issued by the **US Patent and Trade Office (USPTO)** that protects an inventor from having their idea stolen or used by someone else.

Have you ever heard of a patent? A patent protects an inventor from having his or her idea stolen or used by someone else. It is a document issued by the United States Patent and Trademark Office. It gives the inventor rights to his or her invention so that someone else can't copy it or say that they came up with the idea for it first. The patent gives the inventor the right to prevent anyone else from making, using, or selling the invention without his or her permission. A patent lasts for 20 years and when it expires, anyone can produce the product without paying the inventor.

## LESSON 4: Documentation & Journaling



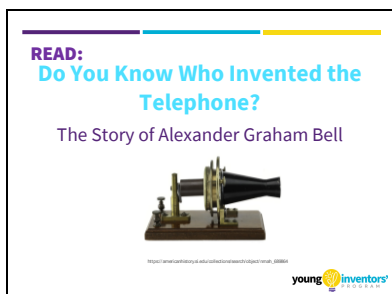
Let's watch this video to learn more about innovation and patents.

**[PLAY VIDEO]** (6:56 minutes).

Link: <https://www.youtube.com/watch?v=3T-NBDGovno>

**NOTE:**

***IF IN-PERSON OR SYNCHRONOUS RECORDING, STOP SLIDES AFTER VIDEO TO LEAD A SHORT DISCUSSION OR TO PROMPT A FEW QUESTIONS FOR STUDENTS TO THINK ABOUT. BEGIN SLIDES WHEN READY TO RESUME.***



**NOTE:**

***IF IN PERSON OR SYNCHRONOUS RECORDING, STOP SLIDES AND READ (OR HAVE STUDENTS READ) THE WHO INVENTED THE TELEPHONE?, THE STORY OF ALEXANDER GRAHAM BELL WORKSHEET. TEACHER MAY LEAD SHORT DISCUSSION WITH THE FOLLOWING PROMPTS.***

- Why did Bell's patent hold up through time?
- What other items do you associate with famous inventors? Are they the "real" inventors?


***BEGIN SLIDES WHEN READY TO RESUME.***

***IF PRE-RECORDING, TEACHER MAY WISH TO STOP SCREEN SHARE AND SLIDES TO READ THE WHO INVENTED THE TELEPHONE?, THE STORY OF ALEXANDER GRAHAM BELL WORKSHEET, OR HAVE STUDENTS TO READ IT ON THEIR OWN AT HOME AND THINK ABOUT THE PROMPTS ABOVE AS THEY READ. BEGIN SCREEN SHARE WITH SLIDES WHEN READY TO RESUME.***

# LESSON 4: Documentation & Journaling

**WHY DO I NEED AN INVENTORS JOURNAL?**

The purpose of the Invention Journal is to tell the entire story of your invention. For every step of the way in making your invention, you will record what you did, why you did it, and how you did it.



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A journal, notebook or logbook, is an essential tool an inventor uses to help them document their process, from when they came up with an idea to when they develop a finished product. As you invent, you will also need to keep a record of your thoughts and activities. You can use your YIP Inventor's Journal which we have already begun to use in previous activities.

You will want to use this journal or some logbook to write down everything you do, why you did it, how you did it, and when you did it. If you are working on your invention and do not have your journal with you, you can always take notes on a separate piece of paper and insert it into your journal later. The important part is that you are recording all of your invention activities.

**GUIDED DISCOVERY**

**YIP INVENTOR JOURNAL GUIDELINES**

- ✓ Write in ink and do not erase.
- ✓ Have your journal witnessed at least once a week.



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Here are some guidelines to help you as you work and record in your journal:

**NOTE:**  
**TEACHER MAY ALTER ANY GUIDELINES TO MEET CLASS REQUIREMENTS.**

**NOTE:**  
**IF TEACHING IN-PERSON OR SYNCHRONOUS RECORDING, READ THE GUIDELINES OR ASK STUDENTS TO READ WITH YOU AS YOU MOVE THROUGH THE NEXT SLIDES.**


**IF PRE-RECORDING, TEACHER SHOULD READ THROUGH SLIDES OR STOP SLIDES AND PRESENT YOUR OWN GUIDELINES.**

# LESSON 4: Documentation & Journaling

**GUIDED DISCOVERY**

**YIP INVENTOR JOURNAL GUIDELINES**

- ✓ Begin your journal with your problem idea and the results of your research.
- ✓ Record your invention ideas and describe how you got them. Also, record changes you make as time goes by.
- ✓ Explain why your idea is new and original or how it is an improvement on an already existing invention.
- ✓ List your research resources.



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**GUIDED DISCOVERY**

**YIP INVENTOR JOURNAL GUIDELINES**

- ✓ Explain what your invention does.
- ✓ Tell how your invention works.
- ✓ Write about your challenges and how you overcame them.
- ✓ Describe all the materials and parts you used. List your costs (if you have any).
- ✓ Diagram and describe the tests you run. Include the results.


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**IF PRE-RECORDING, TEACHER SHOULD READ THROUGH SLIDES OR STOP THE SLIDES AND PRESENT YOUR OWN GUIDELINES.**

**GUIDED DISCOVERY**

**YIP INVENTOR JOURNAL GUIDELINES**



- ✓ Make a diagram of your ideas whenever possible.
- ✓ Tell what you changed and why.
- ✓ Describe how/why you named your invention.

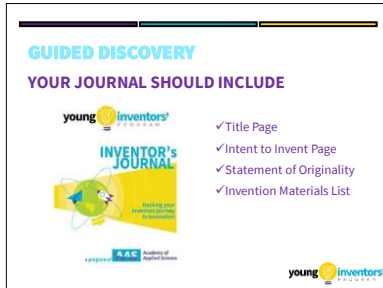


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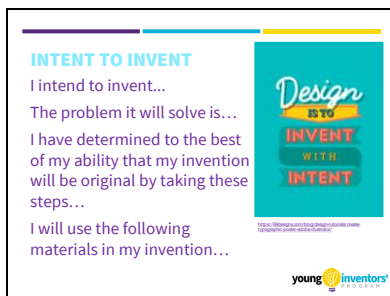
# LESSON 4: Documentation & Journaling



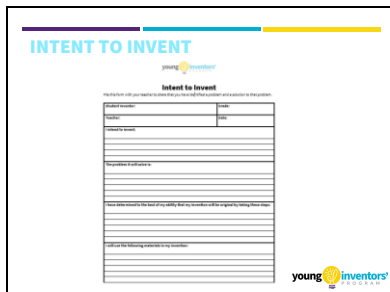
**NOTE:**

**THESE ELEMENTS ARE STRONGLY RECOMMENDED FOR COMPETITION AT THE NORTHERN NEW ENGLAND INVENTION CONVENTION AND THE INVENTION CONVENTION US NATIONALS. TEACHER MAY OR MAY NOT CHOOSE TO REQUIRE THEM.**

I am going to highlight some of the important and required pages in your journals so you know what you must do to complete it.



First, is your Intent to Invent page in the journal. We will go over this page in more detail in a future class activity, but I want you to take a look at it now, too. This page will define your problem and your idea for your invention- how you will solve your problem.

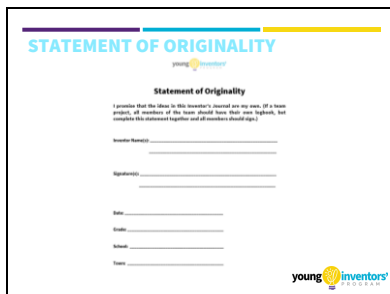


If you have a copy of your YIP Inventor’s Journal with you, turn to the Intent to Invent page. It looks like this.

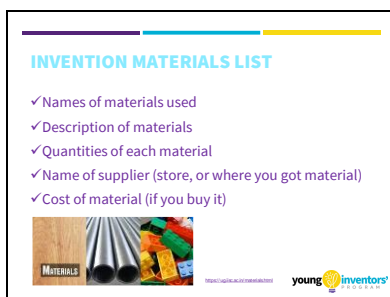
# LESSON 4: Documentation & Journaling



The Statement of Originality will provide your declaration that your idea is yours and that you did not take it or copy it from someone else.



If you have a copy of your YIP Inventor's Journal with you, turn to the Statement of Originality page. It looks like this.



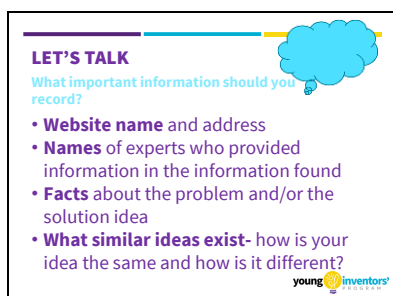
The Invention Materials List will report what items you used to make your invention model. Of course, I encourage you to use recycled materials and things you have around the house. But, if you do need to buy something specific, make a note of where you buy it, how many or how much you need, and how much you spend.

Think of this list like a recipe in a cookbook. Not only does it tell what you used, but it will also help anyone who may want to pre-produce your invention later. Think about if you get a patent and put your invention on the market for people to buy. This materials list will help a manufacturer make your invention over and over again.

# LESSON 4: Documentation & Journaling



If you have a copy of your YIP Inventor's Journal with you, turn to the Invention Materials List page. It looks like this.



So what important information should you be sure to include in your inventor journal? Remember to write down any website addresses you use as you explore your topic and your invention in any research you do. Also, record any other sources you may use- people you interview, and books or magazines you read about your problem, idea or invention. List any facts you learn in your research too. And, of course, if you find that a similar invention already exists, don't panic. Just write down what you learn and where you found the information and then carefully explain and provide evidence of how your invention idea is different or better.

**NOTE:**

***IF TEACHING IN-PERSON OR SYNCHRONOUS RECORDING, STOP SLIDES AND ASK STUDENTS TO RECALL THE IMPORTANT ITEMS TO RECORD. FILL IN ANYTHING THEY MAY MISS. BEGIN SLIDES WHEN READY TO RESUME.***

**STUDENT PROVING BEHAVIOR ACTIVITY:**

***NOW IS A GOOD TIME TO INSERT ONE OF THE RECOMMENDED STUDENT PROVING BEHAVIOR ACTIVITIES FROM LESSON 4 PLAN INTO THE LESSON. STOP SLIDES AND/OR SCREEN SHARE TO LEAD ACTIVITY. BEGIN SLIDES WHEN READY TO RESUME.***



# LESSON 4: Documentation & Journaling

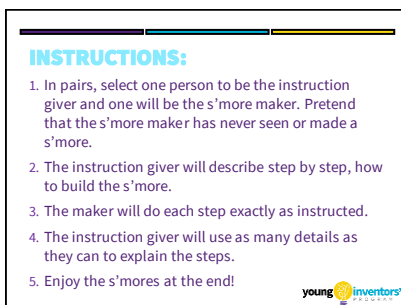


OK, so now it's time to practice our record keeping and documentation skills. Let's do an activity.



Your challenge today is to teach someone else how to make a s'more. To be safe, we are not going to do the marshmallow roasting, so no fire is needed. We'll just use a plain, cold marshmallow for our treat.

It sounds easy, but here's the catch, you can only use words to explain the process. You may not demonstrate, give pictures or use a video to show your friend what to do. You must be really detailed in your explanation in order to complete the task correctly.



No matter what challenge you do, follow these general instructions:

Find a partner. Pretend that this person has no idea what a s'more is; they don't know what it looks like, tastes like, or how to make one. Ask them to play along with you and pretend as well, even if they do know about s'mores. Then, you will describe each step, to help your friend build the s'more. Remind your partner that they should only do what you tell them and when you tell them to do it. Use as many details as you can as you explain the process.

## LESSON 4: Documentation & Journaling

**NOTE:**

**IF TEACHING IN-PERSON OR SYNCHRONOUS RECORDING, STOP SLIDES AND LEAD THE ACTIVITY AS YOU WISH. SEE LESSON PLAN 4 FOR RECOMMENDATIONS FOR A VIRTUAL ACTIVITY. DO THE ACTIVITY AS A CLASS OR IN SMALL GROUPS. WHEN READY, BEGIN SLIDES TO RESUME.**

**IF PRE-RECORDING, REMIND STUDENTS AT HOME TO ASK AN ADULT FOR PERMISSION TO USE INGREDIENTS AND TO EAT TREATS. BEWARE OF ANY ALLERGIES.**

**NOTE:**

**ALTERNATIVE ACTIVITIES INCLUDE TEACHING SOMEONE TO TIE A SHOE OR TO DRAW A PICTURE OF A HOUSE OR A SNOWPERSON.**

**THINK ABOUT:**


How did you feel as you gave instructions and watched the person build the s'more?

What was challenging?

Were your instructions detailed? Did you leave out any steps?

Did your partner build the s'more correctly?

How would you teach someone the next time?



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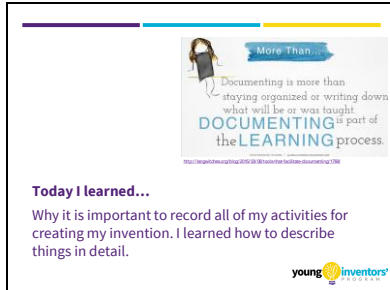
When you finish the activity, take some time to reflect with your partner. Was this challenge easier or harder than you thought it would be? Why?

- How did you feel as you gave instructions and watched your partner follow them?
- Were your instructions detailed enough? Did you leave out any steps? Was your partner able to understand what you were telling them?
- Did your partner build the s'more correctly?
- If you were asked to do this again, what would you do differently?

**NOTE:**

**IF TEACHING IN-PERSON OR SYNCHRONOUS RECORDING, STOP SLIDES AND ASK STUDENTS TO REFLECT AS A GROUP ON THE QUESTIONS. WHEN READY, BEGIN SLIDES TO RESUME.**

## LESSON 4: Documentation & Journaling



Great work today. We covered a lot. Recording and keeping a journal of your invention journey is an essential part of inventing. You now know why it is important to show all of your work. You want to protect your ideas, and you also want to be able to re-create your invention later. You learned what information is important to document: your research and the resources you use, the steps you take, the materials you need, the drawings of your plans and ideas, and when you do all of these things. Remember that you always need to date and sign each day's entry in your journal. YIP has provided a journal for you, or you can use your own. If you need to, you can always write down notes on other paper and add them to your journal later. Journals can be messy—they are a work in progress, not a final draft. At the end, I hope you will look back fondly at your journal as a diary of your journey as an inventor.

Well, this ends today YIP Lesson: Journaling and Documentation.

**NOTE:**

**TEACHER MAY CHOOSE TO CLOSE THE LESSON BY GIVING A RELEVANT ASSIGNMENT OR ASKING STUDENTS TO REFLECT ON THE ACTIVITY. SEE THE YIP LESSON 4 PLAN FOR SUGGESTIONS.**