



Inventing Merit Badge Workbook

SCOUTMASTER BUCKY

Scouts participating in a Scoutmaster Bucky merit badge opportunity, whether online or in person, should consider using the Inventing merit badge pamphlet for discovery and knowledge, along with the class preparation pages for clarifications, insights, and expectations.

<https://scoutmasterbucky.com/merit-badges/inventing/inventing-pamphlet.pdf>

<https://scoutmasterbucky.com/merit-badges/inventing/inventing-cpp.pdf>

REQUIREMENT 2a REQUIRES COUNSELOR APPROVAL.

REQUIREMENTS 2a and 3c REQUIRE PARENT / GUARDIAN PERMISSION.

REQUIREMENT 1: In your own words, define *inventing*.

Notes:

REQUIREMENT 1a: Explain to your counselor the role of inventors and their inventions in the economic development of the United States.

Notes:



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REQUIREMENT 1b: List three inventions and state how they have helped humankind.

INVENTION #1:

Invention:

How this invention helped humankind:

INVENTION #2:

Invention:

How this invention helped humankind:

INVENTION #3:

Invention:

How this invention helped humankind:



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DO ONE OF THE FOLLOWING (2A or 2B) FOR REQUIREMENT 2

REQUIREMENT 2a: Identify and interview with a buddy (and with your parent or guardian's permission and counselor's approval) an individual in your community who has invented a useful item. Report what you learned to your counselor.

Person to Interview:

Name of your Buddy who will be working with you:

PARENT/GUARDIAN PERMISSION: IS REQUIRED.

Parent's / Guardian's Name

Phone or Email

Parent's / Guardian's Signature

Date ☐ *permission*

COUNSELOR APPROVAL: IS REQUIRED.

Counselor's Name

Phone or Email

Counselor's Signature

Date ☐ *approved*

What did this person invent?

Notes:



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REQUIREMENT 2b: Read about three inventors.

INVENTOR #1:

Inventor's Name and what they invented:

What did you read – include title and type (magazine, book, online, etc. [if online, be sure include the URL]:

INVENTOR #2:

Inventor's Name and what they invented:

What did you read – include title and type (magazine, book, online, etc. [if online, be sure include the URL]:

INVENTOR #3:

Inventor's Name and what they invented:

What did you read – include title and type (magazine, book, online, etc. [if online, be sure include the URL]:



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REQUIREMENT 2b: Select the one you find most interesting and tell your counselor what you learned.

Selected Inventor:

Notes:

REQUIREMENT 3a: Define the term *intellectual property*.

Notes:

REQUIREMENT 3a: Explain which government agencies oversee the protection of intellectual property.

Notes:



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REQUIREMENT 3a: Explain the types of intellectual property that can be protected.

Notes:

REQUIREMENT 3a: Explain how intellectual property is protected.

Notes:

REQUIREMENT 3a: Explain why intellectual property is necessary.

Notes:



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REQUIREMENT 3b: Explain the components of a patent.

Notes:

REQUIREMENT 3b: Explain the different types of patents available.

Notes:



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REQUIREMENT 3c: Examine your Scouting gear and find a patent number on a camping item you have used. With your parent or guardian's permission, use the internet to find out more about that patent.

Scouting Gear Item:

Patent Number:

PARENT / GUARDIAN PERMISSION: IS REQUIRED.

Parent's / Guardian's Name

Phone or Email

Parent's / Guardian's Signature

Date

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permission

Notes:

REQUIREMENT 3c: Compare the finished item with the claims and drawings in the patent. Report what you learned to your counselor.

Notes:



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REQUIREMENT 3d: Explain to your counselor the term *patent infringement*.

Notes:

REQUIREMENT 4: Discuss with your counselor the types of inventions that are appropriate to share with others, and explain why.

Notes:



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REQUIREMENT 4: Tell your counselor about one unpatented invention and its impact on society.

Notes:

REQUIREMENT 5: Choose a commercially available product that you have used on an overnight camping trip with your troop. Make recommendations for improving the product.

Selected Product:

Notes:



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REQUIREMENT 5:

Make a sketch that shows your recommendations. Discuss your recommendations with your counselor.



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REQUIREMENT 6: Think of an item you would like to invent that would solve a problem for your family, troop, chartered organization, community, or a special-interest group.

What will you invent:

REQUIREMENT 6a: Keeping a notebook to record your progress. Talk to potential users of your invention and determine their needs. Then, based on what you have learned, write a statement describing the invention and how it would help solve a problem. This statement should include a detailed sketch of the invention.

As a part of completing this requirement you will need to record your progress in your inventing progress notebook.

Make sure you have this ready to share when you meet with the merit badge counselor.

REQUIREMENT 6b: Keeping a notebook to record your progress. Create a model of the invention using clay, cardboard, or any other readily available material. List the materials necessary to build a working prototype of the invention.

As a part of completing this requirement you will need to record your progress in your inventing progress notebook.

Make sure you have this ready to share when you meet with the merit badge counselor.

Don't forget to bring your model to share with the merit badge counselor
This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6c: Keeping a notebook to record your progress. Share the idea and the model with your counselor and potential users of your invention. Record their feedback in your notebook.

As a part of completing this requirement you will need to record your progress in your inventing progress notebook.

Make sure you have this ready to share when you meet with the merit badge counselor.

REQUIREMENT 7: Build a working prototype of the item you invented for requirement 6.*

*** NOTE: BEFORE YOU BEGIN BUILDING THE PROTOTYPE, YOU MUST HAVE YOUR COUNSELOR'S APPROVAL, BASED ON THE DESIGN AND BUILDING PLANS YOU HAVE ALREADY SHARED.**

COUNSELOR APPROVAL: IS REQUIRED.

Counselor's Name

Phone or Email

Counselor's Signature

Date

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approved



REQUIREMENT 7: Test and evaluate the invention. Among the aspects to consider in your evaluation are cost, usefulness, marketability, appearance, and function.

Cost:

Usefulness:

Marketability:

Appearance:

Function:



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REQUIREMENT 7: Describe how your original vision and expectations for your invention are similar or dissimilar to the prototype you built.

Notes:

REQUIREMENT 7: Have your counselor evaluate and critique your prototype.

Don't forget to bring your prototype to complete this part of the requirement

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!



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DO ONE OF THE FOLLOWING (8A or 8B) FOR REQUIREMENT 8

REQUIREMENT 8a: Participate with a club or team (robotics team, science club, or engineering club) that builds a useful item.

Club / Team and Location:

Useful item that was built:

Coach's / Teacher's / Leader's Name

Phone or Email

Coach's / Teacher's / Leader's Signature

Date

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participated with club or team

REQUIREMENT 8a: Share your experience with your counselor.

Notes:



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REQUIREMENT 8b: Visit a museum or exhibit dedicated to an inventor or invention, and create a presentation of your visit to share with a group such as your troop or patrol.

Place and Location Visited:

Inventor or Invention:

Notes:



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REQUIREMENT 9:

Discuss with your counselor the diverse skills, education, training, and experience it takes to be an inventor.

Diverse Skills:

Education:

Training:

Experience:



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REQUIREMENT 9: Discuss how you can prepare yourself to be creative and inventive to solve problems at home, in school, and in your community.

at home:

in school:

in your community:

REQUIREMENT 9: Discuss three career fields that might utilize the skills of an inventor.

Career Field #1:

Career Field #2:

Career Field #3: