



Sustainability

Merit Badge Workbook



This workbook can help you but you still need to read the merit badge pamphlet.

The work space provided for each requirement should be used by the Scout to make notes for discussing the item with his counselor, not for providing the full and complete answers. Each Scout must do each requirement.

No one may add or subtract from the official requirements found in **Boy Scout Requirements** (Pub. 33216 – SKU 620714).

This workbook was updated specifically for use during the Wartburg College Merit Badge College in February of 2016.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Phone No.: _____

Anne Duncan, the Sustainability Coordinator for Wartburg College will be the sustainability counselor for the Merit Badge College on February 27, 2016. She can be reached at 319-352-8536 and anne.duncan@wartburg.edu.

STEP 1 – Do this step first.

1. Before starting work on any other requirements for this merit badge, write in your own words the meaning of *sustainability*.

Explain how you think conservation and stewardship of our natural resources relate to sustainability.

Have a family meeting, and ask family members to write down what they think sustainability means. Be sure to take notes. You will need this information again for requirement 5.

STEP 2 – Do the following

Water. - Do A AND C.

A. Develop and implement a plan that attempts to reduce your family's water usage

As a family, discuss water usage. To aid in your discussion, if past water bills are available, you may choose to examine a few.

As a family, choose three ways to help reduce consumption. Implement those ideas for one month.

1.	
2.	
3.	

Share what you learn with your counselor, and tell how your plan affected your family's water usage.

Water. - continued

C. Discuss with your counselor two areas in the world that have been affected by drought over the last three years. For each area, identify a water conservation practice (successful or unsuccessful) that has been used. Tell whether the practice was effective and why. Discuss what water conservation practice you would have tried and why.

Area:

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Conservation Practice used:

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Was it effective?

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Why?

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What would you try?

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Why?

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Area:

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Conservation Practice used:

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Was it effective?

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Why?

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What would you try?

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Why?

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Food. - continued

B. Discuss with your counselor the ways individuals, families, and communities can create their own food sources (potted plants, family garden, rooftop garden, neighborhood or community garden).

Tell how this plan might contribute to a more sustainable way of life if practiced globally.

Community. - Do A AND C.

A. As a group we will use the classroom board to draw a sketch depicting how you would design a sustainable community. Use the space below to note some of the elements of a sustainable community, such as how the housing, work locations, shops, schools, and transportation systems affect energy, pollution, natural resources, and the economy of the community.

Community. - continued

C. As a group, we will review the most current housing needs assessment for Waverly, Iowa. Before the Merit Badge College, go to <http://www.waverlyia.com/webres/File/economic-development/Maxfield.pdf> to read the assessment. Note things like changes to population by age, location, and housing type.

Discuss with your counselor how birth and death rates affect sufficient housing, and how a lack of housing - or too much housing - can influence the sustainability of a local or global area.

Energy. - Do A AND C.

A. Learn about the sustainability of the different energy sources listed below. Find out how the production and consumption of each of these energy sources affects the environment. How does it's production and consumption affect the environment?

Fossil Fuels

Solar

Wind

Nuclear

Energy. - continued

Hydropower

Geothermal

What does the term "carbon footprint" mean?

Discuss what you learn with your counselor, and explain how you think your family can reduce its carbon footprint.

Energy. - continued

B. Develop and implement a plan that attempts to reduce consumption for one of your family's household utilities.

Examine your family's bills for that utility reflecting usage for three months (past or current).

As a family, choose three ways to help reduce consumption and be a better steward of this resource.

1.	
2.	
3.	

Implement those ideas for one month.

Share what you learn with your counselor, and tell how your plan affected your family's usage.

Stuff. - Do A AND C.

A. Keep a log of the "stuff" your family purchases (excluding food items) for **two weeks**. In your log, categorize each purchase as an essential need (such as soap) or a desirable want (such as a DVD). A blank log form can be found at the end of this workbook.

Share what you learn with your counselor.

C. Discuss with your counselor how having too much "stuff" affects you, your family, and your community.

Financial Impact	
Time Spent	
Maintenance	
Health	
Storage	
Waste	

Stuff. - continued

Include in your discussion the practices that can be used to avoid accumulating too much "stuff."

STEP 3. - Do the following.

A. Explain to your counselor how the following planetary life-support systems support life on Earth and interact with one another.

Soil

Climate

Freshwater

Atmospheric

Nutrient

Oceanic

Ecosystems

Species

STEP 4. - continued

Food waste. Learn about the value of composting and how to start a compost pile.

Start a compost pile appropriate for your living situation.
Tell what can be done with the compost when it is ready for use.

Species decline. Explain the term species (plant or animal) decline.

Discuss the human activities that contribute to species decline, what can be done to help reverse the decline, and its impact on a sustainable environment.

STEP 4. - continued

World population. Learn how the world's population affects the sustainability of Earth. Discuss three human activities that may contribute to putting Earth at risk, now and in the future.

	Activity	Discussion
1.		
2.		
3.		

Climate Change. Listen carefully to the presentation on Climate Change. Discuss three factors that scientists believe affect the global weather and temperature.

Discuss three ways Climate Change will effect you now, and/or as you get older.

STEP 5. – To be done after the Merit Badge College, at home.

A. After completing requirements 1 through 4, have a family meeting.

Discuss what your family has learned about what it means to be a sustainable citizen.

Talk about the behavioral changes and life choices your family can make to live more sustainably.

Share what you learn with your counselor.

B. Discuss with your counselor how living by the Scout Oath and Scout Law in your daily life helps promote sustainability and good stewardship.

