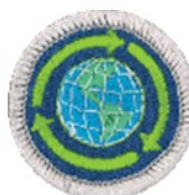




BOY SCOUTS OF AMERICA®  
HUDSON VALLEY COUNCIL



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Merit Badge College Schedule - March 30, 2019							
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8
9:00 -10:00 AM	10:00 -11:00 AM	11:00 AM -12:00 PM	12:00 -1:00 PM	1:00 – 2:00	2:00 – 3:00 PM	3:00 – 4:00 PM	4:00 – 5:00 PM
American Culture (3 Hours)				Chess (4 Hours)			
American Heritage (3 Hours)				Digital Technology (4 Hours)			
Citizenship in the Community (A) (4 Hours)				Citizenship in the Community (B) (4 Hours)			
Citizenship in the Nation (A) (4 Hours)				Citizenship in the Nation (B) (4 Hours)			
Citizenship in the World (A) (B) (3 Hours)				Fingerprinting (2 Hours)		Collections (2 Hours)	
Communication (A) (3 Hours)					Communication (B) (C) (3 Hours)		
Disability Awareness (A) (4 Hours)				Disability Awareness (B) (4 Hours)			
Coin Collecting (3 Hours)				Public Health (4 Hours)			
Entrepreneurship (4 Hours)					Public Speaking (3 Hours)		
First Aid (A) (C) (3 Hours)					First Aid (B) (D) (3 Hours)		
Game Design (3.5 Hours)					Fire Safety (3 Hours)		
Law (4 Hours)					Crime Prevention (3 Hours)		
Movie Making (All Day – 7 Hours)							
Music (3 Hours)					Music (3 Hours)		
Indian Lore (3 Hours)					Photography (3 Hours)		
Radio (All Day – 8 Hours)							
Sustainability (4 Hours)				Scouting Heritage (2 Hours)		Textiles (2 Hours)	
Swimming (All Day – 8 Hours)							
Veterinary Medicine (3 Hours)				Veterinary Medicine (3 Hours)			
Weather (3 Hours)					Traffic Safety (3 Hours)		
Welding (All Day – 8 Hours)							

## MERIT BADGE COLLEGE

The purpose of the Merit Badge College (MBC) is to offer Scouts an opportunity to meet with highly qualified professionals to learn and foster the development of lifelong interests. Particular emphasis is given to career and hobby oriented Merit Badges (MB) especially those MB's with a limited availability of counselors, or requiring specialized equipment as in Welding.

Earning a MB is not guaranteed. No MB requirements will be excused; none will be "gifted". The unit leader must ensure that each Scout is capable of understanding the material of the MB he/she has chosen. Specific Merit Badges being offered are subject to change based on counselor availability. Prerequisites, projects or other outside work must be sent to MB counselor by no later than March 16<sup>th</sup>. A note from the Scoutmaster or a signed prior partial MB Card may also be used as proof of prerequisite completion.

Scouts should secure and review the appropriate Merit Badge Pamphlets (Read the Book!!) Prerequisite information and course catalogs can be found on the Hudson Valley Council website under Merit Badge College, and have also been listed in the catalog.

Worksheets for each Merit Badge prerequisite item must be completed before arrival at the Merit Badge College – Worksheets are available at <http://usscouts.org/mb/worksheets/list.asp> Scouts who do not complete the prerequisites prior to the MBC may not be permitted to attend, as this may delay other scouts in the session.

**SCOUTS MUST BRING A SIGNED BLUE CARD WITH THEM TO THE MERIT BADGE COLLEGE. BLUE CARDS WILL NOT BE AVAILABLE AT THE MERIT BADGE COLLEGE!**

**This is a CLASS A event.** All Scouts and Scout Leaders should demonstrate their Scout Spirit in word and deed. Please wear your uniform.

**Cell Phones - A Scout is Courteous** - If you must have a cell phone, set it to silent/vibrate. Demonstrate respect for the instructors and other classmates and do NOT make or take calls or text messages during class time.

The Merit Badge Counselor has the discretion to determine if the Scout has met the requirements.



# GUIDANCE FOR SCOUTS ATTENDING THE MBC

The Merit Badge College is an opportunity to learn from subject matter experts in career or lifelong hobby subjects.

## 1.) **Pick a Merit Badge**

From the Course Catalog, you can select a number of Merit Badges that you have an interest in taking. We expect that you will talk to your Scoutmaster and parents about which badge to take. But in the end, we expect you to select a topic that you truly wish to learn about. Don't let rank advancement be the only consideration.

## 2.) **Consider Your Age**

While there is not an age or grade requirement for any merit badge, certain classes at the MBC are recommended for older Scouts. In the short duration of a single day, the nature and amount of material covered in these classes will possibly make it difficult for a younger Scout to keep up. This can slow the pace of the class and the class will not complete in the intended material. This may also cause the younger scout to get frustrated or anxious. We want you to enjoy what you do here so you will do it well. Please double check the courses you are considering by referring to the Difficulty Level Document.

## 3.) **Getting Ready for MBC Day (Read the book) / Complete the Worksheet!**

OK. So, you have selected your badges and registered online. Congratulations! The next thing that you should do, if you have not already done so, is to get a copy of the Merit Badge pamphlet for yourself. You should **read through the pamphlet so that you are completely familiar with it**. In fact you may want to read it through more than once. **(Read the book.)** We do not guarantee that you will complete any badge. Many MB classes will have published a list of pre-requisites. These are requirements that you must complete by March 16<sup>th</sup>. When you complete them, bring all material to class with you such as notes, pictures, writings, reports, letters. **(Read the book.)** It is up to you to make sure that you complete every requirement. Some requirements may by their nature not be doable in a classroom. **(Read the book.)** You should at least attempt to complete these before the MBC. If you can do this, then you will get the most out of the workshop.

**Again, worksheets for each Merit Badge prerequisite item must be completed before arrival at the Merit Badge College – Worksheets are available at <http://usscouts.org/mb/worksheets/list.asp>**

## 4.) **Blue Merit Badge Cards**

Before the MBC, you should fill out the card with your name, address, Merit Badge and Troop information. Your Scoutmaster should sign this card indicating that they approve you taking the class. Keep it safe. You must have with you a Merit Badge Card for every badge. This card will be the **ONLY** record of your achievement at the MBC. Counselors are not required to keep records. Most will, but some will not. You are responsible for your card. Keep it safe.

## 5.) **ON MBC Day LEARN and ACHIEVE**

**PROPER SCOUT BEHAVIOR IS EXPECTED. EACH SCOUT IS AN AMBASSADOR TO THE HOST SCHOOL.**

## CHOOSING THE RIGHT MERIT BADGES BASED ON DEGREE OF DIFFICULTY

We want all scouts to enjoy their time at Merit Badge College, and have created the following to help you select the most appropriate courses. This is a guide, older scouts can feel free to take courses listed for younger scouts, but we recommend the badges based on a minimum age as shown

<b>Level 1 – New Scouts / Ages 10 ½ - 11 / 5<sup>th</sup> and 6<sup>th</sup> Grades</b>	
Digital Technology Fingerprinting	Fire Safety Indian Lore

<b>Level 2 – Second Class / Ages 11 – 13 / 6<sup>th</sup> and 7<sup>th</sup> Grades</b>	
<i>First Aid (Eagle Required)</i>	
Chess Coin Collecting Collections Crime Prevention	Disabilities Awareness Game Design Law Music

<b>Level 3 – First Class and Star / Ages 13-14 / 7<sup>th</sup> and 8<sup>th</sup> Grades</b>	
<i>Citizenship in the Community (Eagle Required)</i> <i>Citizenship in the Nation (Eagle Required)</i> <i>Sustainability (Eagle Required)</i> <i>Swimming (Eagle Required)</i>	
American Cultures American Heritage Entrepreneurship Photography Public Health	Public Speaking Radio Textile Veterinary Medicine Welding

<b>Level 4 – Star and Life / Ages 14 and Up / 8<sup>th</sup> Grade and Up</b>	
<i>Citizenship in the World (Eagle Required)</i> <i>Communication (Eagle Required)</i>	
Moviemaking Scouting Heritage	Traffic Safety Weather

## **GUIDANCE FOR PARENTS**

The Merit Badge College is an opportunity for your scout to explore various subject matters, working with experts in career or lifelong hobby subjects. We appreciate you bringing your scout to us for what we hope will be a great day!

We will be grateful to have you assist your scout (if needed) in the check in process.

We especially appreciate it if you have traveled a distance to get here and would prefer not to go home and come back. Available on the day of the classes will be a list of local attractions for you to avail yourself of while waiting for your scout(s) to finish up at the MBC.

Please plan to drop off your scout and be prompt in picking them up at the end of their scheduled sessions. Space at the school is limited, we would prefer if you did not stay in the school during the classes.

## **SNOW/INCLEMENT WEATHER**

Although we will hope for good weather conditions, in case of severe snowfall and/or inclement weather, please check the council website for information. We will utilize similar school closing guidelines in making the decision to cancel the Merit Badge College.

**PLEASE NOTE:** Due to the number of counselors and staff, we will not be able to reschedule or refund the fees for the college if there is a weather related cancellation.

# American Cultures (Level 3)

9:00 AM – 12 Noon

Periods 1-3



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the American Cultures merit badge:

Choose **THREE** groups that have different racial, cultural, national, or ethnic backgrounds, one of which comes from your own background. Use these groups to meet requirements 1, 2, and 3.

1. Do **TWO** of the following, choosing a different group for each:
  - a. Go to a festival, celebration, or other event identified with one of the groups. Report on what you see and learn.
  - b. Go to a place of worship, school, or other institution identified with one of the groups. Report on what you see and learn.
  - c. Talk with a person from one of the groups about the heritage and traditions of the group. Report on what you learn.
  - d. Learn a song, dance, poem, or story that is traditional to one group, and teach it to a group of your friends.
  - e. Go to a library or museum to see a program or exhibit featuring one group's traditions. Report on what you see and learn.
2. Imagine that one of the groups had always lived alone in a city or country to which no other groups ever came. Tell what you think the city or country might be like today. Now tell what you think it might be like if the three groups you chose lived there at the same time.
3. Tell about some differences between the religious and social customs of the three groups. Tell about some ideas or ways of doing things that are similar in the three groups.
4. Tell about a contribution made to our country by three different people each from a different racial, ethnic, or religious background.
5. Give a talk to your scout unit or class at school on how people from different groups have gotten along together. Lead a discussion on what can be done to help various groups understand one another better.

Notes/Comments from MB Counselor

Prerequisites will be sent to student after registration if necessary



# American Heritage (Level 3)

9:00 AM – 12 Noon  
Periods 1-3



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the American Heritage merit badge:

1. Read the Declaration of Independence. Pay close attention to the section that begins with "We hold these truths to be self-evident" and ends with "to provide new Guards for future security." Rewrite that section in your own words, making it as easy to understand as possible. Then share your writing with your merit badge counselor and discuss the importance of the Declaration of Independence.
2. Do TWO of the following:
  - a. Select two individuals from American history, one a political leader (a president, senator, etc.) and the other a private citizen (a writer, religious leader, etc.). Find out about each person's accomplishments and compare the contributions each has made to America's heritage.
  - b. With your counselor's approval, choose an organization that has promoted some type of positive change in American society. Find out why the organization believed this change was necessary and how it helped to accomplish the change. Discuss how this organization is related to events or situations from America's past.
  - c. With your counselor's approval, interview two veterans of the U.S. military. Find out what their experiences were like. Ask the veterans what they believe they accomplished.
  - d. With your counselor's approval, interview three people in your community of different ages and occupations. Ask these people what America means to them, what they think is special about this country, and what American traditions they feel are important to preserve.
3. Do the following:
  - a. Select a topic that is currently in the news. Describe to your counselor what is happening. Explain how today's events are related to or affected by the events and values of America's past.
  - b. For each of the following, describe its adoption, tell about any changes since its adoption, and explain how each one continues to influence Americans today: the flag, the Pledge of Allegiance, the seal, the motto, and the national anthem.
  - c. Research your family's history. Find out how various events and situations in American history affected your family. If your family immigrated to America, tell the reasons why. Share what you find with your counselor.

# American Heritage

## (Continued)



4. Do TWO of the following:
  - a. Explain what is meant by the National Register of Historic Places. Describe how a property becomes eligible for listing. Make a map of your local area, marking the points of historical interest. Tell about any National Register properties in your area. Share the map with your counselor, and describe the historical points you have indicated.
  - b. Research an event of historical importance that took place in or near your area. If possible, visit the place. Tell your counselor about the event and how it affected local history. Describe how the area looked then and what it now looks like.
  - c. Find out when, why, and how your town or neighborhood started, and what ethnic, national, or racial groups played a part. Find out how the area has changed over the past 50 years and try to explain why.
  - d. Take an active part in a program about an event or person in American history. Report to your counselor about the program, the part you took, and the subject.
  - e. Visit a historic trail or walk in your area. After your visit, share with your counselor what you have learned. Discuss the importance of this location and explain why you think it might qualify for National Register listing.
5. Do ONE of the following:
  - a. Watch two motion pictures (with the approval and permission of your counselor and parent) that are set in some period of American history. Describe to your counselor how accurate each film is with regard to the historical events depicted and also with regard to the way the characters are portrayed.
  - b. Read a biography (with your counselor's approval) of someone who has made a contribution to America's heritage. Tell some things you admire about this individual and some things you do not admire. Explain why you think this person has made a positive or a negative contribution to America's heritage.
  - c. Listen to recordings of popular songs from various periods of American history. Share five of these songs with your counselor, and describe how each song reflects the way people felt about the period in which it was popular. If a recording is not available, have a copy of the lyrics available.
6. Discuss with your counselor the career opportunities in American heritage. Pick one that interests you and explain how to prepare for this career. Discuss what education and training are required for this career.

Notes/Comments from MB Counselor

4a can be combined from Citizenship in the Community

# Chess (Level 2)

1:00 PM – 5:00 PM

Periods 5 - 8



## PREREQUISITES AS HIGHLIGHTED



Nova Award Merit Badge

### Requirements for the Chess merit badge:

1. Discuss with your merit badge counselor the history of the game of chess. Explain why it is considered a game of planning and strategy.
2. Discuss with your merit badge counselor the following:
  - a. The benefits of playing chess, including developing critical thinking skills, concentration skills, and decision-making skills, and how these skills can help you in other areas of your life
  - b. Sportsmanship and chess etiquette
3. Demonstrate to your counselor that you know each of the following. Then, using Scouting's Teaching EDGE\*, teach someone (preferably another Scout) who does not know how to play chess:
  - a. The name of each chess piece
  - b. How to set up a chessboard
  - c. How each chess piece moves, including castling and en passant captures
4. Do the following:
  - a. Demonstrate scorekeeping using the algebraic system of chess notation.
  - b. Discuss the differences between the opening, the middle game, and the endgame.
  - c. Explain four opening principles.
  - d. Explain the four rules for castling.
  - e. On a chessboard, demonstrate a "scholar's mate" and a "fool's mate."
  - f. Demonstrate on a chessboard four ways a chess game can end in a draw.
5. Do the following:
  - a. Explain four of the following elements of chess strategy: exploiting weaknesses, force, king safety, pawn structure, space, tempo, time.
  - b. Explain any five of these chess tactics: clearance sacrifice, decoy, discovered attack, double attack, fork, interposing, overloading, overprotecting, pin, remove the defender, skewer, zwischenzug.
  - c. Set up a chessboard with the white king on **e1**, the white rooks on **a1** and **h1**, and the black king on **e5**. With White to move first, demonstrate how to force checkmate on the black king.
  - d. Set up and solve five direct-mate problems provided by your merit badge counselor.

# Chess



6. Do ONE of the following:
- a. Play at least three games of chess with other Scouts and/or your merit badge counselor. Replay the games from your score sheets and discuss with your counselor how you might have played each game differently.
  - b. Play in a scholastic (youth) chess tournament and use your score sheets from that tournament to replay your games with your merit badge counselor. Discuss with your counselor how you might have played each game differently.
  - c. Organize and run a chess tournament with at least four players, plus you. Have each competitor play at least two games.

## Notes/Comments from MB Counselor

Print out the Chess Merit Badge Worksheet at <http://usscouts.org/mb/worksheets/list.asp>  
Start Practicing Chess!

**BRING YOUR OWN CHESS BOARD**

# Citizenship in the Community (Level 3)

Session A  
9:00 AM – 1:00 PM  
Periods 1 - 4

Session B  
1:00 PM – 5:00 PM  
Periods 5 – 8



**Eagle Required Merit Badge**

## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Citizenship in the Community merit badge:

1. Discuss with your counselor what citizenship in the community means and what it takes to be a good citizen in your community. Discuss the rights, duties, and obligations of citizenship, and explain how you can demonstrate good citizenship in your community, Scouting unit, place of worship, or school.
2. Do the following:
  - a. On a map of your community or using an electronic device, locate and point out the following:
    1. Chief government buildings such as your city hall, county courthouse, and public works/services facility
    2. Fire station, police station, and hospital nearest your home
    3. Parks, playgrounds, recreation areas, and trails
    4. Historical or other interesting points of interest
  - b. Chart the organization of your local or state government. Show the top offices and tell whether they are elected or appointed.
3. Do the following:
  - a. Attend a meeting of your city, town, or county council or school board; Or attend a municipal, county, or state court session.
  - b. Choose one of the issues discussed at the meeting where a difference of opinions was expressed, and explain to your counselor why you agree with one opinion more than you do another one.
4. Choose an issue that is important to the citizens of your community; then do the following:
  - a. Find out which branch of local government is responsible for this issue.
  - b. With your counselor's and a parent's approval, interview one person from the branch of government you identified in requirement 4a. Ask what is being done about this issue and how young people can help.
  - c. Share what you have learned with your counselor.



# Citizenship in the Community

## (Continued)

5. With the approval of your counselor **and a parent**, watch a movie that shows how the actions of one individual or group of individuals can have a positive effect on a community. Discuss with your counselor what you learned from the movie about what it means to be a valuable and concerned member of the community.  
Some suggestions:
  - o Follow Me, Boys (G)
  - o It's a Wonderful Life (G)
  - o Mr. Smith Goes to Washington (G)
  - o Remember the Titans (PG)
  - o October Sky (PG)
  - o Mr. Holland's Opus (PG)
  - o Hoosiers (PG)
  - o Pay It Forward (PG13)
  - o Braveheart (R)
  - o The Patriot (R)
6. List some of the services (such as the library, recreation center, public transportation, and public safety) your community provides that are funded by taxpayers. Tell your counselor why these services are important to your community.
7. Do the following:
  - . Identify three charitable organizations outside of Scouting that interest you and bring people in your community together to work for the good of your community.
  - a. Pick ONE of the organizations you chose for requirement 7a. Using a variety of resources (including newspapers, fliers and other literature, the Internet, volunteers, and employees of the organization), find out more about this organization.
  - b. With your counselor's and your parent's approval, contact the organization you chose for requirement 7b and find out what young people can do to help. While working on this merit badge, volunteer at least eight hours of your time for the organization. After your volunteer experience is over, discuss what you have learned with your counselor.
8. Develop a public presentation (such as a video, slide show, speech, digital presentation, or photo exhibit) about important and unique aspects of your community. Include information about the history, cultures, and ethnic groups of your community; its best features and popular places where people gather; and the challenges it faces. Stage your presentation in front of your merit badge counselor or a group, such as your patrol or a class at school.

### Notes/Comments from MB Counselor

Where it asks for Counselor's approval (4b, 5, 7c) e-mail the counselors PRIOR to doing those activities. Contact [Jazzjeff@aol.com](mailto:Jazzjeff@aol.com) for Mr Posner  
[babbittj@csp.edu](mailto:babbittj@csp.edu) for Mr Babbit



# Citizenship in the Nation (Level 3)

Session A  
9:00 AM – 1:00 PM  
Periods 1 - 4

Session B  
1:00 PM – 5:00 PM  
Periods 5 – 8



**Eagle Required Merit Badge**

## **PREREQUISITES AS HIGHLIGHTED**

### **Requirements for the Citizenship in the Nation merit badge:**

- 1. Explain what Citizenship in the Nation means and what it takes to be a good citizen of this country. Discuss the rights, duties, and obligations of a responsible and active American citizen.**
- 2. Do TWO of the following:**
  - a. Visit a place that is listed as a National Historic Landmark or that is on the National Register of Historic Places. Tell your counselor what you learned about the landmark or site and what you found interesting about it.**
  - b. Tour your state capitol building or the U.S. Capitol. Tell your counselor what you learned about the capitol, its function, and the history.**
  - c. Tour a federal facility. Explain to your counselor what you saw there and what you learned about its function in the local community and how it serves this nation.**
  - d. Choose a national monument that interests you. Using books, brochures, the Internet (with your parent's permission), and other resources, find out more about the monument. Tell your counselor what you learned, and explain why the monument is important to this country's citizens.**
- 3. Watch the national evening news five days in a row OR read the front page of a major daily newspaper five days in a row. Discuss the national issues you learned about with your counselor. Choose one of the issues and explain how it affects you and your family.**
- 4. Discuss each of the following documents with your counselor. Tell your counselor how you feel life in the United States might be different without each one.**
  - a. Declaration of Independence**
  - b. Preamble to the Constitution**
  - c. The Constitution**
  - d. Bill of Rights**
  - e. Amendments to the Constitution**
- 5. List the six functions of government as noted in the Preamble to the Constitution. Discuss with your counselor how these functions affect your family and local community.**

# Citizenship in the Nation

## Continued



- 6. With your counselor's approval, choose a speech of national historical importance. Find out about the author, and tell your counselor about the person who gave the speech. Explain the importance of the speech at the time it was given, and tell how it applies to American citizens today. Choose a sentence or two from the speech that has significant meaning to you, and tell your counselor why.**
- 7. Name the three branches of our federal government and explain to your counselor their functions. Explain how citizens are involved in each branch. For each branch of government, explain the importance of the system of checks and balances.**
- 8. Name your two senators and the member of Congress from your congressional district. Write a letter about a national issue and send it to one of these elected officials, sharing your view with him or her. Show your letter and any response you receive to your counselor.**

### Notes/Comments from MB Counselor

- I would like to have each scout e-mail a choice of Amendment to share when & why it was passed and whether all the states ratified it.
- I would like to have them e-mail what speech they choose and also what the names of their Congressman/woman and Senators are.
- I think they should bring their workbooks, pen or pencil, paper to write a letter and an envelope.
- Scout should be prepared to have active discussions for the amendments and other workbook area's and tell us their experiences and have them write a letter in the session.
- If they have pictures from a site they visited it would be great for them to e-mail those ahead of time so that I could put a few powerpoint slides together while the scout is speaking about the area.

Pre requisites should go directly to:

[Jazzjeff@aol.com](mailto:Jazzjeff@aol.com) for Mr Posner

[babbittj@csp.edu](mailto:babbittj@csp.edu) for Mr Babbit

# Citizenship in the World (Level 4)



Session A  
9:00 AM – 1:00 PM  
Periods 1 - 4

Session B  
9:00 AM – 1:00 PM  
Periods 1 - 4



**Eagle Required Merit Badge**

## **PREREQUISITES AS HIGHLIGHTED**

### **Requirements for the Citizenship in the World merit badge:**

1. Explain what citizenship in the world means to you and what you think it takes to be a good world citizen.
2. Explain how one becomes a citizen in the United States, and explain the rights, duties, and obligations of U.S. citizenship. Discuss the similarities and differences between the rights, duties, and obligations of U.S. citizens and the citizens of two other countries.
3. Do the following:
  - a. Pick a current world event. In relation to this current event, discuss with your counselor how a country's national interest and its relationship with other countries might affect areas such as its security, its economy, its values, and the health of its citizens.
  - b. Select a foreign country and discuss with your counselor how its geography, natural resources, and climate influence its economy and its global partnerships with other countries.
4. Do TWO of the following:
  - a. Explain international law and how it differs from national law. Explain the role of international law and how international law can be used as a tool for conflict resolution.
  - b. Using resources such as major daily newspapers, the Internet (with your parent's permission), and news magazines, observe a current issue that involves international trade, foreign exchange, balance of payments, tariffs, and free trade. Explain what you have learned. Include in your discussion an explanation of why countries must cooperate in order for world trade and global competition to thrive.
  - c. Select TWO of the following organizations and describe their role in the world.
    1. The United Nations and UNICEF
    2. The World Court
    3. Interpol
    4. World Organization of the Scout Movement
    5. The World Health Organization
    6. Amnesty International
    7. The International Committee of the Red Cross
    8. CARE (Cooperative for American Relief Everywhere)
    9. European Union

# Citizenship in the World

## Continued



5. Do the following:
  1. Discuss the differences between constitutional and non-constitutional governments.
  2. Name at least five different types of governments currently in power in the world.
  3. Show on a world map countries that use each of these five different forms of government.
6. Do the following:
  - . Explain how a government is represented abroad and how the United States government is accredited to international organizations.
  - a. Describe the roles of the following in the conduct of foreign relations.
    1. Ambassador
    2. Consul
    3. Bureau of International Information Programs
    4. Agency for International Development
    5. United States and Foreign Commercial Service
  - b. Explain the purpose of a passport and visa for international travel.
7. Do TWO of the following (with your parent's permission) and share with your counselor what you have learned:
  - . Visit the Web site of the U.S. State Department. Learn more about an issue you find interesting that is discussed on this Web site.
  - a. Visit the Web site of an international news organization or foreign government, OR examine a foreign newspaper available at your local library, bookstore, or newsstand. Find a news story about a human right realized in the United States that is not recognized in another country.
  - b. Visit with a student or Scout from another country and discuss the typical values, holidays, ethnic foods, and traditions practiced or enjoyed there.
  - c. Attend a world Scout jamboree.
  - d. Participate in or attend an international event in your area, such as an ethnic festival, concert, or play.

Notes/Comments from MB Counselor

Complete the worksheet, bring it, and be ready to discuss it on the MB College meeting day with your counselors and fellow scouts.

Worksheet Link: [http://meritbadge.org/wiki/images/0/09/Citizenship\\_in\\_the\\_world.pdf](http://meritbadge.org/wiki/images/0/09/Citizenship_in_the_world.pdf)

Bring Merit Badge BOOK (Not just worksheet) Pen, Pencil

# Coin Collecting (Level 2)

9:00 AM – 12:00 PM  
Periods 1 - 3



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Coin Collecting merit badge:

1. Understand how coins are made, and where the active U.S. Mint facilities are located.
2. Explain these collecting terms:
  - a. Obverse
  - b. Reverse
  - c. Reeding
  - d. Clad
  - e. Type set
  - f. Date set
3. Explain the grading terms Uncirculated, Extremely Fine, Very Fine, Fine, Very Good, Good, and Poor. Show five different grade examples of the same coin type. Explain the term proof and why it is not a grade. Tell what encapsulated coins are.
4. Know three different ways to store a collection, and describe the benefits, drawbacks, and expenses of each method. Pick one to use when completing requirements.
5. Do ONE of the following:
  - a. Demonstrate to your counselor that you know how to use two U.S. or world coin reference catalogs.
  - b. Read a numismatic magazine or newspaper and tell your counselor about what you learned.
6. Describe the 1999-2008 50 State Quarters program or the America the Beautiful Quarters program. Collect and show your counselor five different quarters from circulation you have acquired from one of these programs.
7. Collect from circulation a set of currently circulating U.S. coins. Include one coin of each denomination (cent, nickel, dime, quarter, half-dollar, dollar). For each coin, locate the mint marks, if any, and the designer's initials, if any.
8. Do the following:
  - a. Identify the people depicted on the following denominations of current U.S. paper money: \$1, \$2, \$5, \$10, \$20, \$50, and \$100.
  - b. Explain "legal tender."
  - c. Describe the role the Federal Reserve System plays in the distribution of currency.
9. Do ONE of the following:
  - a. Collect and identify 50 foreign coins from at least 10 different countries.
  - b. Collect and identify 20 bank notes from at least five different countries.
  - c. Collect and identify 15 different tokens or medals.
  - d. For each year since the year of your birth, collect a date set of a single type of coin.



## Coin Collecting (Level 2)

(Continued)

### 10. Do ONE of the following:

- a. Tour a U.S. Mint facility, the Bureau of Engraving and Printing facility, a Federal Reserve bank, or a numismatic museum or exhibit, and describe what you learned to your counselor.
- b. With your parent's permission, attend a coin show or coin club meeting, or view the Web site of the U.S. Mint or a coin dealer, and report what you learned.
- c. Give a talk about coin collecting to a group such as your troop, a Cub Scout pack, or your class at school.
- d. Do drawings of five Colonial-era U.S. coins.

### ADDITIONAL COMMENTS

#6 Requires 5 Quarters

#8 Requires Set of Currency



# Collections (Level 2)

3:00 PM – 5:00 PM

Periods 7 - 8



## PREREQUISITES AS HIGHLIGHTED (FULL LINE)

### Requirements for the Collections merit badge:

1. Prepare a short written report or outline for your counselor, giving a detailed description of your collection,\* including a short history. Be sure to include why you chose that particular type of collecting and what you enjoy and have learned from your collection.  
\*Stamp and coin collecting are excluded from eligibility for this merit badge.
2. Explain the growth and development of your collection.
3. Demonstrate your knowledge of preserving and displaying your collection.
  - a. Explain the precautions that you need to take to preserve your collection, including
    1. Handling
    2. Cleaning
    3. Storage
  - b. Explain how best to display your collection, keeping in mind preserving as discussed above.
  - c. Explain to your counselor the events available for a hobbyist of this collection, including shows, seminars, conventions, contests, and museum programs or exhibits.
4. Demonstrate your knowledge of collecting and investing. Discuss with your counselor
  - a. How investing and speculation would apply to your collection
  - b. What you would look for in purchasing other collections similar to yours
  - c. What you would expect in return value in the event you decided to sell all or part of the collection
5. Do the following:
  - a. Discuss with your counselor at least 10 terms commonly used in your collection and be prepared to discuss the definition of each.
  - b. Show your counselor any two groups from your collection. Explain how you organized your collection and why you chose that method. (Note: if your collection is too large to transport and your counselor is unable to view your collection directly, photographs should be available to share.)
  - c. Explain how your collection is valued by other collectors and display to your counselor any price guides that may be available.
  - d. Explain how your collection is graded for value, physical defects, size and age. Show the various classifications or ratings used in your collection.

## Collections (Continued)



- e. List the national, state, or local association responsive to your collection.
- f. Show the location of and explain to your counselor the identification number (if applicable), series, brand name (if any), and any special identification marks.
6. Discuss with your counselor the plans you have to continue with the collection in the future.
7. Discuss with your counselor why and how collecting has changed and how this applies to your collection.
8. Find out about career opportunities in collecting. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

Notes/Comments from MB Counselor

Complete MB Worksheet and Bring with you. Bring completed Item #1 with you. Plan to discuss #6 and #8

# Communication (Level 4)

Session A  
9:00 AM – 12:00 PM  
Periods 1 - 3

Session B  
2:00 PM – 5:00 PM  
Periods 6 - 8

Session C  
2:00 PM – 5:00 PM  
Periods 6 - 8



**Eagle Required Merit Badge**

## **PREREQUISITES AS HIGHLIGHTED**

### **1. Do ONE of the following:**

- a. For one day, keep a log in which you describe your communication activities. Keep track of the time and different ways you spend communicating, such as talking person-to-person, listening to teachers, the radio or podcasts, watching television, using social media, reading books and other print media, and using any electronic communication device. Discuss with your counselor what your log reveals about the importance of communication in your life. Think of ways to improve your communications skills.
- b. For three days, keep a journal of your listening experiences. Identify one example of each of the following, and discuss with your counselor when you have listened to:
  1. Obtain information
  2. Be persuaded
  3. Appreciate or enjoy something
  4. Understand someone's feelings
- c. In a small-group setting, meet with other scouts or with friends. Have them share personal stories about significant events in their lives that affected them in some way. Take note of how each scout participates in the group discussion and how effectively he/she communicates their story. Report what you have learned to your counselor about the differences you observed in effective communication.
- d. List as many ways as you can think of to communicate with others (face-to-face, by telephone, letter, e-mail, text messages, and so on). For each type of communication discuss with your counselor an instance when that method might not be appropriate or effective.

### **2. Do ONE of the following:**

- a. Think of a creative way to describe yourself, using, for example, a collage, short story or autobiography, drawing or series of photographs, or a song or skit. Using the aid you created, make a presentation to your counselor about yourself.
- b. Choose a concept, product, or service in which you have great confidence. Build a sales plan based on its good points. Try to persuade the counselor to agree with, use, or buy your concept, product or service. After your sales talk, discuss with your counselor how persuasive you were.



# Communication

## Continued

3. Write a five-minute speech. Give it at a meeting of a group.
4. Interview someone you know fairly well, like, or respect because of his or her position, talent, career or life experiences. Listen actively to learn as much as you can about the person. Then prepare and deliver to your counselor an introduction of the person as though this person were to be a guest speaker, and include reasons why the audience would want to hear this person speak. Show how you would call to invite this person to speak.
5. Attend a public meeting (city council, school board, debate) approved by your counselor where several points of view are given on a single issue. Practice active listening skills and take careful notes of each point of view. Prepare an objective report that includes all points of view that were expressed, and share this with your counselor.
6. With your counselor's approval, develop a plan to teach a skill or inform someone about something. Prepare teaching aids for your plan. Carry out your plan. With your counselor, determine whether the person has learned what you intended.
7. Do ONE of the following:
  - a. Write to the editor of a magazine or your local newspaper to express your opinion or share information on any subject you choose. Send your message by fax, email or regular mail.
  - b. Create a web page or blog of special interest to you (for instance, your troop or crew, a hobby, or a sport). Include at least three articles or entries and one photograph or illustration, and one link to some other web page or blog that would be helpful to someone who visits the web page or blog you have created. It is not necessary to post your web page or blog to the internet, but if you decide to do so, you must first share it with your parents and counselor and get their permission.
  - c. Use desktop publishing to produce a newsletter, brochure, flier or other printed material for your scout troop, class at school, or other group. Include at least one article and one photograph or illustration.
8. Plan a troop or crew court of honor, campfire program, or interfaith worship service. Have the patrol leaders' council approve it, then write the script and prepare the program. Serve as master of ceremonies.
9. Find out about three career opportunities in communication. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.

### Notes/Comments from MB Counselor

For #1 we will be doing c which will be done in class.

For all prereqs below, the lead counselor should receive an email from the scout noting progress/completion on the below.

#2 ( a or b, bring w/you), #3 (write speech, bring w/you), #4 and #5 (email to lead counselor in advance), #6 (have plan before class and bring aids w/you),. #7 if (if using b and c) and #8 (provide proof of completing #8).  
#9 will be done in class.

# Crime Prevention (Level 2)

2:00 PM – 5:00 PM  
Periods 6 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Crime Prevention merit badge:

1. Discuss the role and value of laws in society with regard to crime and crime prevention. Include in your discussion the definitions of 'crime' and 'crime prevention'.
2. Prepare a journal from various sources that addresses crime and crime prevention efforts in your community.
3. Discuss the following with your counselor:
  - a. The role of citizens, including youth, in crime prevention
  - b. Gangs and their impact on the community
  - c. When and how to report a crime
4. After doing EACH of the following, discuss with your counselor what you have learned:
  - a. Inspect your neighborhood for opportunities that may lead to crime. Learn how to do a crime prevention survey.
  - b. Using the checklist in this pamphlet, conduct a security survey of your home and discuss the results with your family.
5. Teach your family or patrol members how to protect themselves from crime at home, at school, in your community, and while traveling.
6. Help raise awareness about one school safety issue facing students by doing ONE of the following:
  - a. Create a poster for display on a school bulletin board.
  - b. With permission from school officials, create a page long public service announcement that could be read over the public address system at school or posted on the school's Web site.
  - c. Make a presentation to a group such as a Cub Scout den that addresses the issue.
7. Do ONE of the following:
  - a. Assist in the planning and organization of a crime prevention program in your community such as Neighborhood Watch, Community Watch, or Crime Stoppers. Explain how this program can benefit your neighborhood.
  - b. With your parent's and counselor's approval, visit a jail or detention facility or a criminal court hearing. Discuss your experience with your counselor.

# Crime Prevention

(Continued)



8. Discuss the following with your counselor:
  - a. How drug abuse awareness programs, such as 'Drugs: A Deadly Game' help prevent crime
  - b. Why alcohol, tobacco, and marijuana are sometimes called 'gateway drugs' and how 'gateway drugs' can lead to the use of other drugs
  - c. The potential consequences from the misuse of prescription drugs.
  - d. How the illegal sale and use of drugs lead to other crimes.
  - e. Three resources in your city where a person with a drug problem can go for help.
  - f. How to recognize child abuse
  - g. The 'three Rs' of Youth Protection
9. Discuss the following with your counselor:
  - a. The role of a sheriff's or police department in crime prevention.
  - b. The purpose and operation of agencies in your community that help law enforcement personnel prevent crime, and how those agencies function during emergency situations.
  - c. Explain the role private security plays in crime prevention.
  - d. Choose a career in the crime prevention or security industry that interests you. Describe the level of education required and responsibilities of a person in that position. Tell why this position interests you.

## Notes/Comments from MB Counselor

9d - Crime Prevention checklist in Workbook

8f – Discuss with parent



# Digital Technology (Level 1)

1:00 PM – 5:00 PM

Periods 5 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Digital Technology merit badge:

1. Show your counselor your current, up-to-date Cyber Chip.
2. Do the following:
  - a. Give a brief history of the changes in digital technology over time. Discuss with your counselor how digital technology in your lifetime compares with that of your parents', grandparents', or other adults' lifetime.
  - b. Describe the kinds of computers or devices you imagine might be available when you are an adult.
3. Do the following:
  - a. Explain to your counselor how text, sound, pictures, and videos are digitized for storage.
  - b. Describe the difference between lossy and lossless data compression, and give an example where each might be used.
  - c. Describe two digital devices and how they are made more useful by their programming.
  - d. Discuss the similarities and differences between computers, mobile devices, and gaming consoles.
  - e. Explain what a computer network is and describe the network's purpose.
4. Do the following:
  - a. Explain what a program or software application or "app" is and how it is created.
  - b. Name four software programs or mobile apps you or your family use, and explain how each one helps you.
  - c. Describe what malware is, and explain how to protect your digital devices and the information stored on them.
5. Do the following:
  - a. Describe how digital devices are connected to the Internet.
  - b. Using an Internet search engine (with your parent's permission), find ideas about how to conduct a troop court of honor or campfire program. Print out a copy of the ideas from at least three different websites. Share what you found with your counselor, and explain how you used the search engine to find this information.
  - c. Use a Web browser to connect to an HTTPS (secure) website (with your parent's permission). Explain to your counselor how to tell whether the site's security certificate can be trusted, and what it means to use this kind of connection.

# Digital Technology

## Continued (Pg 2)



6. Do THREE of the following. For each project you complete, copy the file to a digital device and share the finished projects with your counselor:
- Using a spreadsheet or database program, develop a food budget for a patrol weekend campout OR create a troop roster that includes the name, rank, patrol, and telephone number of each Scout. Show your counselor that you can sort the roster by each of the following categories: rank, patrol, and alphabetically by name.
  - Using a word processor, write a draft letter to the parents of your troop's Scouts, inviting them to a troop event.
  - Using a graphics program, design and draw a campsite plan for your troop OR create a flier for an upcoming troop event, incorporating text and some type of visual such as a photograph or an illustration.
  - Using a presentation software program, develop a report about a topic approved by your counselor. For your presentation, create at least five slides, with each one incorporating text and some type of visual such as a photograph or an illustration.
  - Using a digital device, take a picture of a troop activity. Send or transfer this image to a device where the picture can be shared with your counselor.
  - Make a digital recording of your voice, transfer the file to a different device, and have your counselor play back the recording.
  - Create a blog and use it as an online journal of your Scouting activities, including group discussions and meetings, campouts, and other events. Include at least five entries and two photographs or illustrations. Share your blog with your counselor. You need not post the blog to the Internet; however, if you choose to go live with your blog, you must first share it with your parents AND counselor AND get their approval.
  - Create a Web page for your troop, patrol, school, or place of worship. Include at least three articles and two photographs or illustrations. Include at least one link to a website of interest to your audience. You need not post the page to the Internet; however, if you decide to do so, you must first share the Web page with your parents AND counselor AND get their approval.
7. Do the following:
- Explain to your counselor each of these protections and why they exist: copyright, patents, trademarks, trade secrets.
  - Explain when it is permissible to accept a free copy of a program from a friend.
  - Discuss with your counselor an article or a news report about a recent legal case involving an intellectual property dispute.

# Digital Technology

## Continued (Pg 3)



### 8. Do TWO of the following:

- a. Describe why it is important to properly dispose of digital technology. List at least three dangerous chemicals that could be used to create digital devices or used inside a digital device.
- b. Explain to your counselor what is required to become a certified recycler of digital technology hardware or devices.
- c. Do an Internet search for an organization that collects discarded digital technology hardware or devices for repurposing or recycling. Find out what happens to that waste. Share with your counselor what you found.
- d. Visit a recycling center that disposes of digital technology hardware or devices. Find out what happens to that waste. Share what you learned with your counselor.
- e. Find a battery recycling center near you and find out what it does to recycle batteries. Share what you have learned with your counselor about the proper methods for recycling batteries.

### 9. Do ONE of the following:

- a. Investigate three career opportunities that involve digital technology. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.
- b. Visit a business or an industrial facility that uses digital technology. Describe four ways digital technology is being used there. Share what you learned with your counselor.

## Notes/Comments from MB Counselor

**STUDENT MUST HAVE PROOF OF CURRENT CYBER CHIP!**

#1 (see <https://www.scouting.org/training/youth-protection/cyber-chip/> and complete with home unit),

#5b, #5c, #6 (Note: options #6d, 6g, and 6h requires prior counselor approval) ,#8, #9

\*\*\*Prerequisites MUST be emailed on time. \*\*\*

# Disabilities Awareness (Level 2)

Session A  
9:00 AM – 1:00 PM  
Periods 1 - 4

Session B  
1:00 PM – 5:00 PM  
Periods 5 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Disabilities Awareness merit badge:

1. Do the following:
  - a. Define and discuss with your counselor the following disabilities awareness terms; disability, accessibility, adaptation, accommodation, invisible disability, and person first language.
  - b. Explain why proper disability etiquette is important, and how it may differ depending on the specific disability.
2. Visit an agency that works with people with physical, mental, emotional, or educational disabilities. Collect and read information about the agency's activities. Learn about opportunities its members have for training, employment, and education. Discuss what you have learned with your counselor.
3. Do TWO of the following:
  - a. Talk with a Scout who has a disability and learn about their experiences taking part in Scouting activities and earning different merit badges. Discuss what you have learned with your counselor.
  - b. Talk with an individual who has a disability and learn about this person's experiences and the activities in which this person likes to participate. Discuss what you have learned with your counselor.
  - c. Learn how people with disabilities take part in a particular adaptive sport or recreational activity. Discuss what you have learned with your counselor.
  - d. Learn about independent living aids such as service animals, canes, and augmentative communication devices such as captioned telephones and videophones. Discuss with your counselor how people use such aids.
  - e. Plan or participate in an activity that helps others understand what a person with a visible or invisible disability experiences. Discuss what you have learned with your counselor.

# Disabilities Awareness

(Continued)



- f. Do EITHER option A or option B:
- G. Visit TWO of the following locations and take notes about the accessibility to people with disabilities. In your notes, give examples of five things that could be done to improve upon the site and five things about the site that make it friendly to people with disabilities. Discuss your observations with your counselor.
  - a. Your school
  - b. Your place of worship
  - c. A Scouting event or campsite
  - d. A public exhibit or attraction (such as a theater, museum, or park)
- H. Visit TWO of the following locations and take notes while observing features and methods that are used to accommodate people with invisible disabilities. While there, ask staff members to explain any accommodation features that may not be obvious. Note anything you think could be done to better accommodate people who have invisible disabilities. Discuss your observations with your counselor.
  - a. Your school
  - b. Your place of worship
  - c. A Scouting event or campsite
  - d. A public exhibit or attraction (such as a theater, museum, or park)
- 4. Explain what advocacy is. Do ONE of the following advocacy activities:
  - . Present a counselor approved disabilities awareness program to a Cub Scout pack or other group. During your presentation, explain and use person first language.
  - a. Find out about disability awareness education programs in your school or school system, or contact a disability advocacy agency. Volunteer with a program or agency for eight hours.
  - b. Using resources such as disability advocacy agencies, government agencies, the Internet (with your parent's permission), and news magazines, learn about myths and misconceptions that influence the general public's understanding of people with disabilities. List 10 myths and misconceptions about people with disabilities and learn the facts about each myth. Share your list with your counselor, then use it to make a presentation to a Cub Scout pack or other group.
- 5. Make a commitment to your merit badge counselor describing what you will do to show a positive attitude about people with disabilities and to encourage positive attitudes among others. Discuss how your awareness has changed as a result of what you have learned.
- 6. Name five professions that provide services to people with disabilities. Pick one that interests you and find out the education, training, and experience required for this profession. Discuss what you learn with your counselor, and tell why this profession interests you.

# Entrepreneurship (Level 3)

## Recommended Age 15 and up

9:00 AM – 1:00 PM  
Periods 1 - 4



### PREREQUISITES AS HIGHLIGHTED

1. In your own words, define entrepreneurship. Explain to your merit badge counselor how entrepreneurs impact the U.S. economy.
2. Explain to your counselor why having good skills in the following areas is important for an entrepreneur: communication, planning, organization, problem solving, decision making, basic math, adaptability, technical and social skills, teamwork, and leadership.
3. Identify and interview an individual who has started a business. Learn about this person's educational background, early work experiences, where the idea for the business came from, and what was involved in starting the business. Find out how the entrepreneur raised the capital (money) to start the business, examples of successes and challenges faced, and how the business is currently doing (if applicable). Discuss with your counselor what you have learned.
4. Think of as many ideas for a business as you can, and write them down. From your list, select three ideas you believe represent the best opportunities. Choose one of these and explain to your counselor why you selected it and why you feel it can be successful.
5. Create a written business plan for your idea that includes all of the following:
  - a. Product or Service
    1. Describe the product or service to be offered.
    2. Identify goals for your business.
    3. Explain how you can make enough of the product or perform the service to meet your goals.
    4. Identify and describe the potential liability risks for your product or service.
    5. Determine what type of license, if any, you might need in order to sell or make your product or service.
  - b. Market Analysis
    1. Identify the types of people who would buy your product or service.
    2. Identify your business's competitors, and describe their strengths and weaknesses.
    3. Describe what makes your product or service unique.
  - c. Financial
    1. Determine how much money you will need to start your business, and identify how you will obtain the money.
    2. Determine the cost of offering your product or service and the price you will charge in order to make a profit.
    3. Describe what will happen with the money you make from the sales of your product or service.



# Entrepreneurship (Level 4)

(Continued)



- d. Personnel
  1. Determine what parts of the business you will handle yourself, and describe your qualifications.
  2. Determine whether you will need additional help to operate your business. If you will need help, describe the responsibilities and qualifications needed for the personnel who will fill each role.
- e. Promotion and Marketing
  1. Describe the methods you will use to promote your business to potential customers.
  2. Explain how you will utilize the Internet and social media to increase awareness of your product or service.
  3. Design a promotional flier or poster for your product or service.
- 6. When you believe your business idea is feasible, imagine your business idea is now up and running. What successes and problems might you experience? How would you overcome any failures? Discuss with your counselor any ethical questions you might face and how you would deal with them.

## Notes/Comments from MB Counselor

For Entrepreneurship, the pre-reqs are 3, 4 and 5. In my opinion, the material for this merit badge is geared towards older scouts and recommend a minimum age of 15 to enroll,

# Fingerprinting (Level 1)

1:00 PM – 3:00 PM

Periods 5 - 6



## **PREREQUISITES AS HIGHLIGHTED**

### **Requirements for the Fingerprinting merit badge:**

1. Give a short history of fingerprinting. Tell the difference between civil and criminal identification.
2. Explain the difference between the automated fingerprint identification systems (AFIA) now used by some law enforcement agencies and the biometric fingerprint systems used to control access to places like buildings, airports, and computer rooms.
3. Do the following:
  - a. Name the surfaces of the body where friction or papillary ridges are found.
  - b. Name the two basic principles supporting the science of fingerprints and give a brief explanation of each principle.
  - c. Explain what it takes to positively identify a person using fingerprints.
4. Take a clear set of prints using ONE of the following methods:
  - a. Make both rolled and plain impressions. Make these on an 8-by-8-inch fingerprint identification card available from your local police department or counselor.
  - b. Using clear adhesive tape, a pencil, and plain paper, record your own fingerprints or those of another person.
5. Show your merit badge counselor you can identify the three basic types of fingerprint patterns and their subcategories. Using your own hand, identify the types of patterns you see.

# Fire Safety (Level 1)

2:00 PM – 5:00 PM

Periods 6 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Fire Safety merit badge:

1. Do the following:
  - a. Demonstrate the technique of stop, drop, cover, roll, cover your face, and cool. Explain how burn injuries can be prevented.
  - b. List the most frequent causes of burn injuries.
  - c. Explain how to safely discard and store flammable liquids.
2. Explain the chemistry and physics of fire. Name the parts of the fire tetrahedron. Explain why vapors are important to the burning process. Name the products of combustion. Give an example of how fire grows and what happens.
3. Do the following:
  - a. Name the most frequent causes of fire in the home and give examples of ways they can be prevented. Include a discussion about fires caused by smoking in the home, cooking, candles, fireplaces, and electrical appliances.
  - b. Determine if smoke detectors are required in all dwellings within your municipality. If so, explain which specific types are required. Tell your counselor what type of smoke detectors your house has or needs.
4. Explain the role of human behavior in the arson problem in this country.
5. List the actions and common circumstances that cause seasonal and holiday-related fires. Explain how these fires can be prevented.
6. Conduct a home safety survey with the help of an adult. Then do the following:
  - a. Draw a home fire-escape plan, create a home fire-drill schedule, and conduct a home fire drill.
  - b. Test a smoke alarm and demonstrate regular maintenance of a smoke alarm.
  - c. Explain what to do when you smell gas and when you smell smoke.
  - d. Explain how you would report a fire alarm.
  - e. Explain what fire safety equipment can be found in public buildings.
  - f. Explain who should use fire extinguishers and when these devices can be used.
  - g. Explain how to extinguish a grease pan fire.
  - h. Explain what fire safety precautions you should take when you are in a public building.
7. Do the following:
  - a. Demonstrate lighting a match safely.
  - b. Demonstrate the safe way to start a charcoal fire.
  - c. Demonstrate how to safely light a candle. Discuss with your counselor how to safely use candles.

# Fire Safety

(Continued)



8. Explain the difference between combustible and noncombustible liquids and between combustible and noncombustible fabrics.
9. Do the following:
  - a. Describe for your counselor the safe way to refuel a liquid fuel engine, such as a lawn mower, weed eater, an outboard motor, farm machine, or an automobile with gas from an approved gas can.
  - b. Demonstrate the safety factors, such as proper ventilation, for auxiliary heating devices and the proper way to fuel those devices.
10. Do the following:
  - a. Explain the cost of outdoor and wildland fires and how to prevent them.
  - b. Demonstrate setting up and putting out a cooking fire.
  - c. Demonstrate using a camp stove and lantern.
  - d. Explain how to set up a campsite safe from fire.
11. Visit a fire station. Identify the types of fire trucks. Find out about the fire prevention activities in your community.
12. Choose a fire safety-related career that interests you and describe the level of education required and responsibilities of a person in that position. Tell why this position interests you.

# First Aid (Level 2)

Session A  
9:00 AM – 12:00 PM  
Periods 1 - 3

Session B  
2:00 PM – 5:00 PM  
Periods 6 - 8

Session C  
9:00 AM – 12:00 PM  
Periods 1 - 3

Session D  
2:00 PM – 5:00 PM  
Periods 6 - 8



**Eagle Required Merit Badge**

## PREREQUISITES AS HIGHLIGHTED

### Requirements for the First Aid merit badge:

1. Satisfy your counselor that you have current knowledge of all first-aid requirements for Tenderfoot, Second Class, and First Class ranks.
2. Explain how you would obtain emergency medical assistance from:
  - a. Your home
  - b. A remote location on a wilderness camping trip
  - c. An activity on open water
3. Define the term triage. Explain the steps necessary to assess and handle a medical emergency until help arrives.
4. Explain the universal precautions as applied to the transmission of infections. Discuss the ways you should protect yourself and the victim while administering first aid.
5. Prepare a first-aid kit for your home. Display and discuss its contents with your counselor.
6. Describe the early signs and symptoms of each of the following and explain what actions you should take:
  - a. Shock
  - b. Heart attack
  - c. Stroke
7. Do the following:
  - a. Describe the conditions that must exist before performing CPR on a person. Then demonstrate proper CPR technique using a training device approved by your counselor.
  - b. Explain the use of an automated external defibrillator (AED). Identify the location of the AED at your school, place of worship, and troop meeting place, if one is present.
8. Show the steps that need to be taken for someone suffering from a severe cut on the leg and on the wrist. Tell the dangers in the use of a tourniquet and the conditions under which its use is justified.
9. Explain when a bee sting could be life threatening and what action should be taken for prevention and for first aid.

# First Aid

(Continued)



10. Describe the signs and symptoms and demonstrate the proper procedures for handling and immobilizing suspected closed and open fractures or dislocations of the
  - a. Forearm
  - b. Wrist
  - c. Upper leg
  - d. Lower leg
  - e. Ankle
11. Describe the signs, symptoms, and possible complications and demonstrate care for someone with a suspected injury to the head, neck, or back.
12. Describe the symptoms, proper first-aid procedures, and possible prevention measures for the following conditions:
  - a. Anaphylaxis/allergic reactions
  - b. Bruises
  - c. Sprains or strains
  - d. Hypothermia
  - e. Frostbite
  - f. Burns—first, second, and third degree
  - g. Convulsions/seizures
  - h. Dehydration
  - i. Muscle cramps
  - j. Heat exhaustion
  - k. Heat stroke
  - l. Abdominal pain
  - m. Broken, chipped, or loosened tooth
13. Do the following:
  - a. Describe the conditions under which an injured person should be moved.
  - b. If a sick or an injured person must be moved, tell how you would determine the best method. Demonstrate this method.
  - c. With helpers under your supervision, improvise a stretcher and move a presumably unconscious person.
14. Teach another Scout a first-aid skill selected by your counselor.

**Notes/Comments from MB Counselor**

**Bring Completed First Aid Kit**

# Game Design (Level 2)

9:00 AM – 12:30 PM

Periods 1 - 4



Nova Award Merit Badge

## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Game Design merit badge:

1. Do the following:
  - a. Analyze four games you have played, each from a different medium. Identify the medium, player format, objectives, rules, resources, and theme (if relevant). Discuss the play experience, what you enjoy in each game, and what you dislike. Make a chart to compare and contrast the games.
  - b. Describe four types of play value and provide an example of a game built around each concept. Discuss other reasons people play games.
2. Discuss five of the following 17 game design terms. For each term that you pick, describe how it relates to a specific game.
  - o Thematic game elements: story, setting, characters
  - o Gameplay elements: play sequence, level design, interface design
  - o Game analysis: difficulty, balance, depth, pace, replay value, age appropriateness
  - o Related terms: single-player vs. multiplayer, cooperative vs. competitive, turn-based vs. real-time, strategy vs. reflex vs. chance, abstract vs. thematic
3. Define the term intellectual property. Describe the types of intellectual property associated with the game design industry. Describe how intellectual property is protected and why protection is necessary. Define and give an example of a licensed property.
4. Do the following:
  - . Pick a game where the players can change the rules or objectives (examples: basketball, hearts, chess, kickball). Briefly summarize the standard rules and objectives and play through the game normally.
  - a. Propose changes to several rules or objectives. Predict how each change will affect gameplay.
  - b. Play the game with one rule or objective change, observing how the players' actions and emotional experiences are affected by the rule change. Repeat this process with two other changes.
  - c. Explain to your counselor how the changes affected the actions and experience of the players. Discuss the accuracy of your predictions.
5. Design a new game. Any game medium or combination of mediums is acceptable. Record your work in a game design notebook.
  - . Write a vision statement for your game. Identify the medium, player format, objectives, and theme of the game. If suitable, describe the setting, story, and characters.
  - a. Describe the play value.
  - b. Make a preliminary list of the rules of the game. Define the resources.
  - c. Draw the game elements.



# Game Design

(Continued)



**6.** Do the following:

- . Prototype your game from requirement 5. If applicable, demonstrate to your counselor that you have addressed player safety through the rules and equipment. Record your work in your game design notebook.  
You must have your merit badge counselor's approval of your concept before you begin creating the prototype.
- a. Test your prototype with as many other people as you need to meet the player format. Compare the play experience to your descriptions from requirement 5b. Correct unclear rules, holes in the rules, dead ends, and obvious rule exploits. Change at least one rule, mechanic, or objective from your first version of the game, and describe why you are making the change. Play the game again. Record in your game design notebook whether or not your change had the expected effect.
- b. Repeat 6b at least two more times and record the results in your game design notebook.

**7.** Blind test your game. Do the following:

- . Write an instruction sheet that includes all of the information needed to play the game. Clearly describe how to set up the game, play the game, and end the game. List the game objectives.
- a. Share your prototype from requirement 6a with a group of players that has not played it or witnessed a previous playtest. Provide them with your instruction sheet(s) and any physical components. Watch them play the game, but do not provide them with instruction. Record their feedback in your game design notebook.
- b. Share your game design notebook with your counselor. Discuss the player reactions to your project and what you learned about the game design process. Based on your testing, determine what you like most about your game and suggest one or more changes.

**8.** Do ONE of the following:

- . With your parent's permission and your counselor's approval, visit with a professional in the game development industry and ask him or her about his or her job and how it fits into the overall development process. Alternately, meet with a professional in game development education and discuss the skills he or she emphasizes in the classroom.
- a. List three career opportunities in game development. Pick one and find out about the education, training, and experience required for the profession. Discuss this with your counselor. Explain why this profession might interest you.

**Notes from Merit Badge Counselor**  
**Utilize Merit Badge Book and Worksheet**

# Indian Lore (Level 1)

9:00 AM – 12:00 PM  
Periods 1 - 3



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Indian Lore merit badge:

1. Identify the different American Indian cultural areas. Explain what makes them each unique.
2. Give the history of one American Indian tribe, group or nation that lives or has lived near you. Visit it, if possible. Tell about traditional dwellings, way of life, tribal government, religious beliefs, family and clan relationships, language, clothing styles, arts and crafts, food preparation, means of getting around, games, customs in warfare, where members of the group now live, and how they live.
3. Do TWO of the following. Focus on a specific group or tribe.
  - a. Make an item of clothing worn by members of the tribe.
  - b. Make and decorate three items used by the tribe, as approved by your counselor.
  - c. Make an authentic model of a dwelling used by any Indian tribe, group, or nation.
  - d. Visit a museum to see Indian artifacts. Discuss them with your counselor. Identify at least 10 artifacts by tribe or nation, their shape, size, and use.
4. Do ONE of the following:
  - a. Learn three games played by a group or tribe. Teach and lead one game with a Scout group.
  - b. Learn and show how a tribe traditionally cooked or prepared food. Make three food items.
  - c. Give a demonstration showing how a specific Indian group traditionally hunted, fished, or trapped.
5. Do ONE of the following:
  - a. Write or briefly describe how life might have been different for the European settlers if there had been no native Americans to meet them when they came to this continent.
  - b. Sing two songs in an Indian language. Explain their meanings.
  - c. Learn in an Indian language at least 25 common terms and their meanings.
  - d. Show 25 signs in Indian sign language. Include those that will help you ask for water, for food, and where the path or road leads.

# Indian Lore

(Continued)



- e. Learn an Indian story of up to 300 words (or several shorter stories adding up to no more than 300 words). Tell the story or stories at a Scout gathering or campfire.
- f. Write or tell about eight things adopted by others from American Indians.
- g. Learn 25 Indian place names. Tell their origins and meanings.
- h. Name five well-known American Indian leaders, either from the past or people of today. Give their tribes or nations. Describe what they did or do now that makes them notable.
- i. Attend a contemporary American Indian gathering. Discuss with your counselor what you learned and observed. Include in your discussion any singing, dancing, drumming, and the various men's and women's dance styles you saw.

ANY PREREQUISITES WILL BE SENT TO STUDENT AFTER REGISTRATION

# Law (Level 2)

9:00 AM – 1:00 PM  
Periods 1 - 4



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Law merit badge:

1. Define "law." Tell some of its sources. Describe functions it serves.
2. Discuss two of the following:
  - a. The Justinian Code, The Code of Hammurabi, and the Magna Carta.
  - b. The development of the jury system.
  - c. Two famous trials in history.
3. Tell what civil law is; tell what criminal law is. Tell the main differences between them. Give examples of each.
4. Ask five people (not more than one from your immediate family) about the role of law enforcement officers in our society. Discuss their answers with them. Go to a law enforcement officer in your neighborhood and ask him about his responsibilities and duties. Report your findings.
5. Tell about several laws that were passed to protect the consumer and the seller. Tell about several organizations that provide help to consumers and sellers.
6. Do ONE of the following:
  - a. Attend a session of a civil or criminal court. Write 250 words or more on what you saw.
  - b. Plan and conduct a mock trial with your troop or school class. After the trial is over, discuss it with the group.
7. Arrange a visit with a lawyer who works for a business, bank, title company, or government agency. Find out his or her duties and responsibilities. Report what you learned.
8. Explain the requirements for becoming a lawyer in your state. Describe how judges are selected in your state.
9. Make a list of 15 jobs which deal with some aspect of law or legal processes. Tell which you prefer. Why?
10. Tell where people can go to obtain the help of a lawyer if they are unable to pay for one. Tell what you can do if you can afford a lawyer but do not know of any in your area.
11. Discuss with your counselor the importance of TWO of the following areas of the law that have recently emerged and are still developing:
  - a. Environmental law
  - b. Computers and the Internet
  - c. Copyright and the Internet
  - d. Space travel and satellites orbiting the earth
  - e. Patents
  - f. Biotechnology
  - g. Privacy law
  - h. International law

# Law (Level 2)

(Continued)



## Notes/Comments from MB Counselor

Scouts in the Law Merit Badge class will be participating in a mock trial that will require advance preparation. Scouts will be asked to complete a short questionnaire to ensure that teams are evenly matched (i.e., age, grade, rank, location). The mock trial will be based on a criminal law fact pattern and Scouts will need to speak with members of their team and prepare prior to the class. Additional time and instruction will be provided in class for trial and witness prep, courtroom rules, and strategy. All necessary material will be accessible via Google Drive.

# Moviemaking (Level 4)

9:00 AM – 4:00 PM

Periods 1 – 7 (Will take short break for Lunch)



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Moviemaking merit badge:

1. Discuss and demonstrate the proper elements of a good motion picture. In your discussion, include visual storytelling, rhythm, the 180-axis rule, camera movement, framing and composition of camera shots, and lens selection.
2. Do the following:
  - a. In a three- or four-paragraph treatment, tell the story you plan to produce, making sure that the treatment conveys a visual picture.
  - b. Prepare a storyboard for your motion picture (This can be done with rough sketches and stick figures.)
  - c. Demonstrate the following motion picture shooting techniques:
    1. Using a tripod
    2. Panning a camera
    3. Framing a shot
    4. Selecting an angle
    5. Selecting proper lighting
    6. Handheld shooting
  - d. Using motion picture techniques, plan ONE of the following programs. Start with a treatment, and complete the requirement by presenting this program to a pack or your troop, patrol, or class.
3. Do ONE of the following:
  - a. With your parent's permission and your counselor's approval, visit a film set or television production studio and watch how production work is done.
  - b. Explain to your counselor the elements of the zoom lens and three important parts.
4. Find out about three career opportunities in moviemaking. Pick one and find out the education, training, and experience required for this profession. Discuss this career with your counselor. Explain why this profession might interest you.

### Notes/Comments from MB Counselor

Scouts will need to complete Requirement 2 A and B BEFORE attending the class and Scouts are expected to have purchased and read the Moviemaking Merit Badge pamphlet. AFTER completing the class, Scouts will complete Requirement 2 D (1, 2 or 3) and provide proof of completion back to the class instructors"

# Music (Level 2)

Session A

9:00 AM – 12:00 PM

Periods 1 - 3



Session B

2:00 PM – 5:00 PM

Periods 6 - 8

## PREREQUISITES AS HIGHLIGHTED

1. Sing or play a simple song or hymn chosen by your counselor, using good technique, phrasing, tone, rhythm, and dynamics. Read all the signs and terms of the score.
2. Name the five general groups of musical instruments. Create an illustration that shows how tones are generated and how instruments produce sound.
3. Do TWO of the following:
  - (a) Attend a live performance, or listen to three hours of recordings from any two of the following musical styles: blues, jazz, classical, country, bluegrass, ethnic, gospel, musical theater, opera. Describe the sound of the music and the instruments used. Identify the composers or songwriters, the performers, and the titles of the pieces you heard. If it was a live performance, describe the setting and the reaction of the audience. Discuss your thoughts about the music.
  - (b) Interview an adult member of your family about music. Find out what the most popular music was when he or she was your age. Find out what his or her favorite music is now, and listen to three of your relative's favorite tunes with him or her. How do those favorites sound to you? Had you ever heard any of them? Play three of your favorite songs for your relative, and explain why you like these songs. Ask what he or she thinks of your favorite music.
  - (c) Serve for six months as a member of a school band, choir, or other organized musical group, or perform as a soloist in public six times.
  - (d) List five people who are important in the history of American music and explain to your counselor why they continue to be influential. Include at least one composer, one performer, one innovator, and one person born more than 100 years ago.
4. Do ONE of the following:
  - (a) Teach three songs to a group of people. Lead them in singing the songs, using proper hand motions.
  - (b) Compose and write the score for a piece of music of 12 measures or more, and play this music on an instrument.
  - (c) Make a traditional instrument and learn to play it.
5. Define for your counselor intellectual property (IP). Explain how to properly obtain and share recorded music.

Prerequisites—

#1, 3, & 4— Prepare in advance and perform / show at MB College session. \*Counselors will contact you via email for musical selections for Requirement #1 and /or instrument needs for Requirements #1 and #4b



# Photography (Level 3)

2:00 PM – 5:00 PM  
Periods 6 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Photography merit badge:

1. Safety. Do the following:
  - a. Explain to your counselor the most likely hazards you may encounter while working with photography and what you should do to anticipate, mitigate, prevent, and respond to these hazards. Explain how you would prepare for exposure to environmental situations such as weather, sun, and water.
  - b. Show your counselor your current, up-to-date Cyber Chip.
2. Explain how the following elements and terms can affect the quality of a picture:
  - a. Light - natural light (ambient/existing), low light (such as at night), and artificial light (such as from a flash)
  - b. Exposure-aperture (f-stops), shutter speed, ISO
  - c. Depth of field
  - d. Composition-rule of thirds, leading lines, framing, depth
  - e. Angle of view
  - f. Stop action and blur motion
  - g. Timing
3. Explain the basic parts and operation of a film camera or digital camera. Explain how an exposure is made when you take a picture.
4. Do TWO of the following, then share your work with your counselor:
  - a. Photograph one subject from two different angles or perspectives.
  - b. Photograph one subject from two different light sources - artificial and natural.
  - c. Photograph one subject with two different depth of fields.
  - d. Photograph one subject with two different compositional techniques.
5. Photograph THREE of the following, then share your work your counselor:
  - a. Close-up of a person
  - b. Two to three people interacting
  - c. Action shot
  - d. Animal shot
  - e. Nature shot
  - f. Picture of a person - candid, posed, or camera aware

# Photography

(Continued)



6. Describe how software allows you to enhance your photograph after it is taken. Select a photo you have taken, then do ONE of the following, and share what you have done with your counselor:
  - a. Crop your photograph.
  - b. Adjust the exposure or make a color correction.
  - c. Show another way you could improve your picture for impact.
7. Using images other than those created for requirements 4, 5 or 6, produce a visual story to document an event to photograph OR choose a topic that interests you to photograph. Do the following:
  - a. Plan the images you need to photograph for your photo story.
  - b. Share your plan with your counselor, and get your counselor's input and approval before you proceed.
  - c. Select eight to 12 images that best tell your story. Arrange your images in order and mount the prints on a poster board, OR create an electronic presentation. Share your visual story with your counselor.
8. Identify three career opportunities in photography. Pick one and explain to your counselor how to prepare for such a career. Discuss what education and training are required, and why this profession might interest you.

Notes/Comments from MB Counselor

Complete items 4-7 and bring to class

All Scouts must be prepared and will be required to present their visual stories (requirement 7) to the class. Last year, a few scouts brought their presentations on flash drives but no computer.

# Public Health (Level 3)

1:00 PM – 5:00 PM  
Periods 5 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Public Health merit badge:

1. Do the following:
  - (a) Explain what public health is. Explain how *Escherichia coli* (*E. coli*), tetanus, HIV/AIDS, malaria, salmonellosis, and Lyme disease are contracted.
  - (b) Choose any FOUR of the following diseases or conditions, and explain how each one is contracted and possibly prevented: gonorrhea, West Nile virus, Zika, botulism, influenza, syphilis, hepatitis, emphysema, meningitis, herpes, lead poisoning.
  - (c) For each disease or condition in requirement 1b, explain:
    - (i) The type or form of the malady (viral, bacterial, environmental, toxin)
    - (ii) Any possible vectors for transmission
    - (iii) Ways to help prevent exposure or the spread of infection
    - (iv) Available treatments
2. Do the following:
  - (a) Explain the meaning of *immunization*.
  - (b) Name eight diseases against which a young child should be immunized, two diseases against which everyone should be reimmunized periodically, and one immunization everyone should receive annually.
  - (c) Using the list of diseases and conditions in requirement 1b, discuss with your counselor those which currently have no immunization available.
3. Discuss the importance of safe drinking water in terms of the spread of disease. Then, demonstrate two ways for making water safe to drink that can be used while at camp. In your demonstration, explain how dishes and utensils should be washed, dried, and kept sanitary at home and in camp.
4. Explain what a vector is and how insects and rodents can be controlled in your home, in your community, and at camp. Tell why this is important. In your discussion, explain which vectors can be easily controlled by individuals and which ones require long-term, collective action.

# Public Health (Level 3)

(Continued)



5. With your parent's and counselor's approval, do ONE of the following:
- (a) Visit a municipal wastewater treatment facility OR a solid-waste management operation in your community.
    - 1. Describe how the facility safely treats and disposes of sewage or solid waste.
    - 2. Discuss your visit and what you learned with your counselor.
    - 3. Describe how sewage and solid waste should be disposed of under wilderness camping conditions.
  - (b) Visit a food service facility, such as a restaurant or school cafeteria.
    - 1. Observe food preparation, handling, and storage. Learn how the facility keeps food from becoming contaminated.
    - 2. Find out what conditions allow micro-organisms to multiply in food, what can be done to help prevent them from growing and spreading, and how to kill them.
    - 3. Discuss the importance of using a thermometer to check food temperatures.
    - 4. Discuss your visit and what you learned with your counselor.
6. Do the following:
- (a) Describe the health dangers from air, water, and noise pollution.
  - (b) Describe health dangers from tobacco use and alcohol and drug abuse.
  - (c) Describe the health dangers from abusing illegal and prescription drugs.
7. With your parent's and counselor's approval:
- Do ONE of the following:
- (a) Visit your city, county, or state public health agency.
  - (b) Familiarize yourself with your city, county, or state health agency's website.
- After completing either 7a or 7b, do the following:
- (i) Compare the four leading causes of mortality (death) in your community for any of the past five years with the four leading causes of disease in your community. Explain how the public health agency you visited is trying to reduce the mortality and morbidity rates of these leading causes of illness and death.
  - (ii) Explain the role of your health agency as it relates to the outbreak of diseases.
  - (iii) Discuss the kinds of public assistance the agency is able to provide in case of disasters such as floods, storms, tornadoes, earthquakes, and other acts of destruction. Your discussion can include the cleanup necessary after the disaster.

# Public Health

(Continued)



8. Pick a profession in the public health sector that interests you. Find out the education, training, and experience required to work in this profession. Discuss what you learn with your counselor.

## PLEASE NOTE:

A parental permission form will be sent to class attendees. This must be signed by the parent and returned to the counselor prior to the Merit Badge College.

Choose one from questions 5 and 7. Have the booklet, know what immunization are , also know what public health careers there are. Also make sure that all scouts and parents are aware that there are some sensitive topics that we may cover and have understanding / knowledge of diseases that are discussed in the workbook

# Public Speaking (Level 3)

2:00 PM – 5:00 PM

Periods 6 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Public Speaking merit badge:

1. Give a three- to five-minute introduction of yourself to an audience such as your troop, class at school, or some other group.
2. Prepare a three- to five-minute talk on a topic of your choice that incorporates body language and visual aids.
3. Give an impromptu talk of at least two minutes, either as part of a group discussion or before your counselor. Use a subject selected by your counselor that is interesting to you but that is not known to you in advance and for which you do not have time to prepare.
4. Select a topic of interest to your audience. Collect and organize information about this topic and prepare an outline. Write an eight- to 10-minute speech, practice it, then deliver it in the conversational way.
5. Show you know parliamentary procedure by leading a discussion or meeting according to accepted rules of order; or by answering questions on the rules of order.

### Notes from Counselor:

In order to facilitate requirement #3, Scouts are requested to email the MBC with a list of approximately six topics that interest them.

Requirement #2 requires visual aids. Please contact the MBC if you would like to drop off your visual aids prior to the first period.

# Radio (Level 3)

9:00 AM – 5:00 PM

All Day (Will break briefly for Lunch)



## Requirements for the Radio merit badge:

1. Explain what radio is. Then discuss the following:
  - a. The differences between broadcast radio and hobby radio.
  - b. The differences between broadcasting and two-way communications.
  - c. Radio call signs and how they are used in broadcast radio and amateur radio
  - d. The phonetic alphabet and how it is used to communicate clearly.
2. Do the following:
  - a. Sketch a diagram showing how radio waves travel locally and around the world.
  - b. Explain how the broadcast radio stations, WWV and WWVH can be used to help determine what you will hear when you listen to a shortwave radio.
  - c. Explain the difference between a distant (DX) and a local station.
  - d. Discuss what the Federal Communication Commission (FCC) does and how it is different from the International Telecommunication Union.
3. Do the following:
  - a. Draw a chart of the electromagnetic spectrum covering 300 kilohertz (kHz) to 3000 megahertz (MHz).
  - b. Label the MF, HF, VHF, UHF, and microwave portions of the spectrum on your diagram.
  - c. Locate on your chart at least eight radio services such as AM and FM commercial broadcast, citizens band (CB), television, amateur radio (at least four amateur radio bands), and public service (police and fire).
4. Explain how radio waves carry information. Include in your explanation: transceiver, transmitter, amplifier, and antenna.
5. Do the following:
  - a. Explain the differences between a block diagram and a schematic diagram.
  - b. Draw a block diagram for a radio station that includes a transceiver, amplifier, microphone, antenna, and feed line.
  - c. Discuss how information is sent when using amplitude modulation (AM), frequency modulation (FM), continuous wave (CW) Morse Code transmission, single sideband (SSB) transmission, and digital transmission.
  - d. Explain how NOAA Weather Radio (NWR) can alert you to danger.
  - e. Explain how cellular telephones work. Identify their benefits and limitations in an emergency.
6. Explain the safety precautions for working with radio gear, including the concept of grounding for direct current circuits, power outlets, and antenna systems.
7. Visit a radio installation (an amateur radio station, broadcast station, or public communications center, for example) approved in advance by your counselor.  
Discuss what types of equipment you saw in use, how it was used, what types of licenses are required to operate and maintain the equipment, and the purpose of the station.
8. Find out about three career opportunities in radio. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.



# Radio

(Continued)



## 9. Do ONE of the following: (a OR b OR c OR d )

### a. Amateur Radio

1. Tell why the FCC has an amateur radio service.  
Describe activities that amateur radio operators can do on the air, once they have earned an amateur radio license.
2. Explain differences between the Technician, General, and Extra Class license requirements and privileges.  
Explain who administers amateur radio exams.
3. Explain at least five Q signals or amateur radio terms.
4. Explain how you would make an emergency call on voice or Morse code.
5. Explain the differences between handheld transceivers and home "base" transceivers. Explain the uses of mobile amateur radio transceivers and amateur radio repeaters.
6. Using proper call signs, Q signals, and abbreviations, carry on a 10-minute real or simulated amateur radio contact using voice, Morse code, or digital mode. (Licensed amateur radio operators may substitute five QSL cards as evidence of contacts with five amateur radio operators. Properly log the real or simulated ham radio contact, and record the signal report.)

### b. Radio Broadcasting

1. Discuss with your counselor FCC broadcast regulations. Include power levels, frequencies, and the regulations for low-power stations.
2. Prepare a program schedule for radio station "KBSA" of exactly one-half hour, including music, news, commercials, and proper station identification.  
Record your program on audiotape or in a digital audio format using proper techniques.
3. Listen to and properly log 15 broadcast stations Determine the program format and target audience for five of these stations.
4. Explain to your counselor at least eight terms used in commercial broadcasting, such as segue, cut, fade, continuity, remote, Emergency Alert System, network, cue, dead air, PSA, and play list.
5. Discuss with your counselor alternative radio platforms such as internet streaming, satellite radio, and podcasts.

### c. Shortwave and Medium-Wave Listening

1. Listen across several shortwave bands for four one-hour periods - at least one period during daylight hours and at least one period at night.  
Log the stations properly and locate them geographically on a globemap, globe, or web-based mapping service.
2. Listen to several medium-wave stations for two one-hour periods, one period during daylight hours and one period at night.  
Log the stations properly and locate them on a map, globe, or web-based mapping service.
3. Compare your daytime and nighttime shortwave logs;  
note the frequencies on which your selected stations were loudest during each session. Explain the differences in the signal strength from one period to the next.

# Radio

(Continued)



4. Compare your medium-wave broadcast station logs and explain why some distant stations are heard at your location only during the night.
  5. Demonstrate listening to a radio broadcast using a smartphone/cell phone. Include international broadcasts in your demonstration.
- d. Amateur Radio Direction Finding
1. Describe amateur radio direction finding and explain why direction finding is important as both an activity and in competition.
  2. Describe what frequencies and equipment are used for ARDF or fox hunting.
  3. Build a simple directional antenna for either of the two frequencies used in ARDF.
  4. Participate in a simple fox hunt using your antenna along with a provided receiver.
  5. Show on a map how you located the "fox" using your receiver.

Note from Counselor

#9 – Doing A&B will be less difficult than completing C&D

# Scouting Heritage (Level 4)

1:00 PM – 3:00 PM

Periods 5 - 6



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Scouting Heritage merit badge:

1. Discuss with your counselor the life and times of Lord Baden-Powell of Gilwell. Explain why he felt a program like Scouting would be good for the young men of his day. Include in your discussion how Scouting was introduced in the United States, and the origins of Boy Scouting and Cub Scouting under Baden-Powell.
2. Do the following:
  - a. Give a short biographical summary of any TWO of the following, and tell of their roles in how Scouting developed and grew in the United States prior to 1940.
    1. Daniel Carter Beard
    2. William D. Boyce
    3. Waite Phillips
    4. Ernest Thompson Seton
    5. James E. West
  - b. Discuss the significance to Scouting of any TWO of the following:
    1. Brownsea Island
    2. The First World Scout Jamboree
    3. Boy Scout Handbook
    4. Boys' Life magazine
3. Discuss with your counselor how Scouting's programs have developed over time and been adapted to fit different age groups and interests (Cub Scouting, Boy Scouting, Exploring, Venturing).
4. Do ONE of the following:
  - a. Attend either a BSA national jamboree, OR world Scout jamboree, OR a national BSA high-adventure base. While there, keep a journal documenting your day-to-day experiences. Upon your return, report to your counselor what you did, saw, and learned. You may include photos, brochures, and other documents in your report.
  - b. Write or visit the National Scouting Museum. Obtain information about this facility. Give a short report on what you think the role of this museum is in the Scouting program.

# Scouting Heritage

(Continued)



- c. Visit an exhibit of Scouting memorabilia or a local museum with a Scouting history gallery, or (with your parent's permission and counselor's approval) visit with someone in your council who is recognized as a dedicated Scouting historian or memorabilia collector. Learn what you can about the history of Boy Scouting. Give a short report to your counselor on what you saw and learned.
5. Learn about the history of your unit or Scouting in your area. Interview at least two people (one from the past and one from the present) associated with your troop. These individuals could be adult unit leaders, Scouts, troop committee members, or representatives of your troop's chartered organization. Find out when your unit was originally chartered. Create a report of your findings on the history of your troop, and present it to your patrol or troop or at a court of honor, and then add it to the troop's library. This presentation could be in the form of an oral/written report, an exhibit, a scrapbook, or a computer presentation such as a slide show.
6. Make a collection of some of your personal patches and other Scouting memorabilia. With their permission, you may include items borrowed from family members or friends who have been in Scouting in the past, or you may include photographs of these items. Show this collection to your counselor, and share what you have learned about items in the collection. (There is no requirement regarding how large or small this collection must be.)
7. Reproduce the equipment for an old-time Scouting game such as those played at Brownsea Island. You may find one on your own (with your counselor's approval), or pick one from the Scouting Heritage merit badge pamphlet. Teach and play the game with other Scouts.
8. Interview at least three people (different from those you interviewed for requirement 5) over the age of 40 who were Scouts. Find out about their Scouting experiences. Ask about the impact that Scouting has had on their lives. Share what you learned with your counselor.

# Sustainability (Level 3)

9:00 AM – 1:00 PM  
Periods 1 - 4



## PREREQUISITES AS HIGHLIGHTED



Eagle Required Merit Badge

### Requirements for the Sustainability merit badge:

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.
2. Do the following:

**Water.** Do A AND either B OR 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. Share what you learn with your counselor, and tell how your plan affected your family's water usage.
- B. Using a diagram you have created, explain to your counselor how your household gets its clean water from a natural source and what happens with the water after you use it. Include water that goes down the kitchen, bathroom, and laundry drains, and any runoff from watering the yard or washing the car. Tell two ways to preserve your family's access to clean water in the future.
- 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.

**Food.** Do A AND either B OR C.

- a. Develop and implement a plan that attempts to reduce your household food waste. Establish a baseline and then track and record your results for two weeks. Report your results to your family and counselor.
- 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.

# Sustainability

(continued)



- c. Discuss with your counselor factors that limit the availability of food and food production in different regions of the world. Tell three ways these factors influence the sustainability of worldwide food supplies.

**Community.** Do A AND either B OR C.

- A. Draw a rough sketch depicting how you would design a sustainable community. Share your sketch with your counselor, and explain how the housing, work locations, shops, schools, and transportation systems affect energy, pollution, natural resources, and the economy of the community.
- B. With your parent's permission and your counselor's approval, interview a local architect, engineer, contractor, or building materials supplier. Find out the factors that are considered when using sustainable materials in renovating or building a home. Share what you learn with your counselor.
- C. Review a current housing needs assessment for your town, city, county, or state. 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 either B OR C.

- A. Learn about the sustainability of different energy sources, including fossil fuels, solar, wind, nuclear, hydropower, and geothermal. Find out how the production and consumption of each of these energy sources affects the environment and what the term "carbon footprint" means. Discuss what you learn with your counselor, and explain how you think your family can reduce its carbon footprint.
- 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. Implement those ideas for one month. Share what you learn with your counselor, and tell how your plan affected your family's usage.
- C. Evaluate your family's fuel and transportation usage. Review your family's transportation-related bills (gasoline, diesel, electric, public transportation, etc.) 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. Implement those ideas for one month. Share what you learn with your counselor, and tell how your plan affected your family's transportation habits.

**NOTE: CHOOSE B or C**

# Sustainability

(Continued)



**Stuff.** Do A AND either B OR 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). Share what you learn with your counselor.
- B. Plan a project that involves the participation of your family to identify the "stuff" your family no longer needs. Complete your project by donating, repurposing, or recycling these items.
- C. Discuss with your counselor how having too much "stuff" affects you, your family, and your community. Include the following: the financial impact, time spent, maintenance, health, storage, and waste. Include in your discussion the practices that can be used to avoid accumulating too much "stuff."

2. Do the following:

- A. Explain to your counselor how the planetary life-support systems (soil, climate, freshwater, atmospheric, nutrient, oceanic, ecosystems, and species) support life on Earth and interact with one another.
- B. Tell how the harvesting or production of raw materials (by extraction or recycling), along with distribution of the resulting products, consumption, and disposal/repurposing, influences current and future sustainability thinking and planning.

3. Explore TWO of the following categories. Have a discussion with your family about the two you select. In your discussion, include your observations, and best and worst practices. Share what you learn with your counselor.

- A. **Plastic waste.** Discuss the impact plastic waste has on the environment (land, water, air). Learn about the number system for plastic recyclables, and determine which plastics are more commonly recycled. Find out what the trash vortex is and how it was formed.
- B. **Electronic waste.** Choose three electronic devices in your household. Find out the average lifespan of each, what happens to these devices once they pass their useful life, and whether they can be recycled in whole or part. Discuss the impact of electronic waste on the environment.
- C. **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.
- D. **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.
- E. **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.
- F. **Climate change.** Find a world map that shows the pattern of temperature change for a period of at least 100 years. Share this map with your counselor, and discuss three factors that scientists believe affect the global weather and temperature.



# Sustainability

(Continued)



4. Do the following:
  - . 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.
  - a. Discuss with your counselor how living by the Scout Oath and Scout Law in your daily life helps promote sustainability and good stewardship.
5. Learn about career opportunities in the sustainability field. Pick one and find out the education, training, and experience required. Discuss what you have learned with your counselor and explain why this career might interest you.

# Swimming (Level 4)

9:00 AM – 5:00 PM

All Day (Will break briefly for Lunch)



Eagle Required Merit Badge

## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Swimming merit badge:

1. Do the following:
  - a. Explain to your counselor how Scouting's Safe Swim Defense plan anticipates, helps prevent and mitigate, and provides responses to likely hazards you may encounter during swimming activities.
  - b. Discuss the prevention and treatment of health concerns that could occur while swimming, including hypothermia, dehydration, sunburn, heat exhaustion, heatstroke, muscle cramps, hyperventilation, spinal injury, stings and bites, and cuts and scrapes.
2. Before doing the following requirements, successfully complete the BSA swimmer test: Jump feet first into water over the head in depth. Level off and swim 75 yards in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards using an easy, resting backstroke. The 100 yards must be completed in one swim without stops and must include at least one sharp turn. After completing the swim, rest by floating.
3. Swim continuously for 150 yards using the following strokes in good form and in a strong manner: front crawl or trudgen for 25 yards, back crawl for 25 yards, sidestroke for 25 yards, breaststroke for 25 yards, and elementary backstroke for 50 yards.
4. Do the following:
  - a. Demonstrate water rescue methods by reaching with your arm or leg, by reaching with a suitable object, and by throwing lines and objects. Explain why swimming rescues should not be attempted when a reaching or throwing rescue is possible, and explain why and how a rescue swimmer should avoid contact with the victim.
  - b. With a helper and a practice victim, show a line rescue both as tender and as rescuer. The practice victim should be approximately 30 feet from shore in deep water.
5. Do the following:
  - a. Float faceup in a resting position for at least one minute.
  - b. Demonstrate survival floating for at least five minutes.
  - c. While wearing a properly fitted U.S. Coast Guard-approved life jacket, demonstrate the HELP and huddle positions. Explain their purposes.
  - d. Explain why swimming or survival floating will hasten the onset of hypothermia in cold water.

# Swimming

(Continued)



6. In water over your head, but not to exceed 10 feet, do each of the following:
  - a. Use the feet first method of surface diving and bring an object up from the bottom.
  - b. Do a headfirst surface dive (pike or tuck), and bring the object up again.
  - c. Do a headfirst surface dive to a depth of at least 5 feet and swim underwater for three strokes. Come to the surface, take a breath, and repeat the sequence twice.
7. Following the guidelines set in the BSA Safe Swim Defense, in water at least 7 feet deep\*, show a standing headfirst dive from a dock or pool deck. Show a long shallow dive, also from the dock or pool deck.

*\*If your state, city, or local community requires a water depth greater than 7 feet, it is important to abide by that mandate.*

8. Explain the health benefits of regular aerobic exercise, and discuss why swimming is favored as both fitness and therapeutic exercise.

## Notes/Comments from MB Counselor

**This will be intense as these scouts should have swimming ability and be ready to do the other requirements with little instruction.**

**All students will need to pass a BSA Swim test at the start of the session**

# Textile (Level 2)

3:00 PM – 5:00 PM  
Periods 7 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Textile merit badge:

1. Discuss with your merit badge counselor the importance of textiles. In your discussion define the terms *fiber*, *fabric* and *textile*. Give examples of textiles you use every day.
2. Do the following:
  - a. Get swatches of two natural-fiber fabrics (100 percent cotton, linen, wool or silk; no blends). Get swatches of two synthetic-fiber fabrics (nylon, polyester, acrylic, olefin, or spandex). Get a sample of one cellulosic fabric (rayon, acetate or lyocell).
  - b. Give the origin, major characteristics, and general content of each type of fiber obtained for 2(a). Explain the difference between a cellulosic manufactured fiber and a synthetic manufactured fiber.
  - c. Describe the main steps in making raw fiber into yarn, and yarn into fabric.
  - d. Assume you will soon buy a new garment or other textile item. Tell your counselor what fiber or blend of fibers you want the item to be, and give reasons for your choice.
3. Do TWO of the following:
  - a. Visit a textile plant, textile products manufacturer or textile school or college. Report on what you saw and learned.
  - b. Weave a belt, headband, place mat, or wall hanging. Use a simple loom that you have made yourself.
  - c. With a magnifying glass, examine a woven fabric, a nonwoven fabric, and a knitted fabric. Sketch what you see. Explain how the three constructions are different.
  - d. Make a piece of felt.
  - e. Make two natural dyes and use them to dye a garment or a piece of fabric.
  - f. Waterproof a fabric.
  - g. Demonstrate how to identify fibers, using a microscope identification or the breaking test.
4. Explain the meaning of 10 of the following terms: warp, harness, heddle, shed, aramid, spandex, sliver, yarn, spindle, distaff, loom, cellulose, sericulture, extrusion, carbon fibers, spinneret, staple, worsted, nonwoven, greige goods.

# Textile

(Continued)



5. List the advantages and disadvantages of natural plant fibers, natural animal fibers, cellulosic manufactured fibers, and synthetic manufactured fibers. Identify and discuss at least four ecological concerns regarding the production and care of textiles.
6. Explain to your merit badge counselor, either verbally or in a written report, five career possibilities in the textile industry. Tell about two positions that interest you the most and the education, cost of training, and specific duties those positions require.

## Notes/Comments from MB Counselor

Bring Worksheet and Scout Spirit!

# Traffic Safety (Level 4)

2:00 PM – 5:00 PM

Periods 6 - 8



## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Traffic Safety merit badge:

1. Do the following:
  - a. Describe the top 10 mistakes new drivers frequently make. Name the two items you are required by law to carry with you whenever you operate a motor vehicle.
  - b. Describe how alcohol and other drugs affect the human body and why a person should never drink and drive, or drive while under the influence of any mind-altering substances, including prescription drugs, cold medications, and illicit drugs. For the state where you live, find out what is the legal blood alcohol concentration and the consequences for driving while intoxicated or driving under the influence. Find out what the open-container law is in your state.
  - c. Describe at least four factors to be considered in the design of a road or highway. Explain how roadside hazards and road conditions contribute to the occurrence and seriousness of traffic crashes.
  - d. Explain why a driver who is fatigued or distracted should not operate a motor vehicle. List five common distractions, explain how driver distractions contribute to traffic accidents, and tell how drivers can minimize distractions. Describe how volunteer drivers can plan to be alert when transporting Scouting participants.
2. Do the following:
  - a. Demonstrate how to properly wear a lap or shoulder belt. Explain why it is important for drivers and passengers to wear safety belts at all times.
  - b. List five safety features found in motor vehicles besides occupant restraint systems. Describe each feature, how each works, and how each contributes to safety.
3. Do the following:
  - a. Using your family car or another vehicle, demonstrate that all lights and lighting systems in the vehicle are working. Describe the function and explain why each type of light is important to safe driving.
  - b. Using your family car or another vehicle, demonstrate how to check tire pressure and identify the correct tire pressure for the vehicle. Explain why proper tire pressure is important to safe driving.
  - c. Demonstrate a method to check for adequate tire tread. Explain why proper tire tread is important to safe driving.
  - d. Demonstrate with a smear-and-clear test if the windshield blades will clear the windshield completely or need to be replaced. Describe instances in good and bad weather when windshield washers are important to safe driving.

# Traffic Safety

(Continued)



4. Do the following:

- a. In a location away from traffic hazards, measure with a tape measure : not in a car : and mark off with stakes the distance that a car will travel during the time needed for decision and reaction, and the braking distance necessary to stop a car traveling 30, 50, and 70 miles an hour on dry, level pavement. Discuss how environmental factors such as bad weather and road conditions will affect the distance.
- b. Describe the difference in nighttime visibility between a properly lit bicycle and rider (or a pedestrian) wearing reflective material and a bicycle and rider with no lights (or a pedestrian) dressed in dark clothing, without reflective material.
- c. Explain how color and shape are used to help road users recognize and understand the information presented on traffic and roadway signs. Explain the purpose of different types of signs, signals, and pavement markings.
- d. Describe at least three examples of traffic laws that apply to drivers of motor vehicles and that bicyclists must also obey.

5. Do ONE of the following:

- a. Interview a traffic law enforcement officer in your community to identify what three traffic safety problems the officer is most concerned about. Discuss with your merit badge counselor possible ways to solve one of those problems.
- b. Using the Internet (with your parent's permission), visit five websites that cover safe driving for teenagers. Then in a group session with at least three teenagers and your counselor, discuss what you have learned.
- c. Initiate and organize an activity to demonstrate the importance of traffic safety.
- d. Accompanied by an adult and a buddy, pick a safe place to observe traffic at a controlled intersection (traffic signal or stop sign) on three separate days and at three different times of the day, for 30 minutes on each visit. At this intersection, survey violations that might occur. These violations could include (but are not limited to) running a red light or stop sign, speeding, using a cell phone while driving, or occupants not wearing their seat belts. Count the number of violations. Record in general terms the approximate age of the people you observed. Keep track of the total number of vehicles observed so that you can determine the percentage of compliance vs. violations. Discuss the findings with your merit badge counselor.

# Veterinary Medicine (Level 3)

Session A  
9:00 AM – 12:00 PM  
Periods 1 - 3



Session B  
1:00 PM – 4:00 PM  
Periods 5 - 7

## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Veterinary Medicine merit badge:

1. Discuss with your counselor the roles a veterinarian plays in the following:
  - a. Companion or small animal medicine, and equine medicine
  - b. Food animal or large animal medicine
  - c. Exotic animal medicine
  - d. Marine animal medicine (mammal and fish)
  - e. Poultry medicine
  - f. Wildlife medicine and aquaculture medicine
2. Discuss with your counselor the roles a veterinarian plays in the following:
  - a. Public health medicine and zoonotic disease surveillance and control
  - b. The military
  - c. Food safety and inspection
  - d. Laboratory animal medicine and research
  - e. Teaching and government
3. Describe the training required to become a veterinarian. Where is the veterinary medical college nearest you? Describe the prerequisites for applying to veterinary school.
4. Tell your counselor what a registered veterinary technician (R.T.V.) or animal health technician (A.H.T.) is. Describe the training required to become an R.V.T. or A.H.T. Where is the school or facility for R.V.T. or A.H.T training nearest you? Describe the role an R.V.T. or A.H.T. would play in assisting a veterinarian working in three of the practice types listed in requirement 1.
5. Discuss with your merit badge counselor the role a veterinarian plays in the human-animal bond.
6. Do ONE of the following:
  - a. Visit a veterinary clinic, hospital, or veterinary referral teaching hospital that does work in one of the practices listed in requirement 1. Spend as much time as you can observing the veterinarians and their staff. Write a report on what you observed and learned at the facility. Share your report with your counselor.
  - b. Spend as much time as possible with a veterinarian who works in one of the fields listed in requirement 2. Learn what special training beyond veterinary medical school may have been required for that position. Learn about any special or unusual activities required of this position. Write a report on what you have learned about this field of veterinary medicine. Include in your report how this field serves the needs of the general public. Share your report with your counselor.



# Weather (Level 4)

9:00 AM – 12:00 PM  
Periods 1 - 3



**Nova Award Merit Badge**

## **PREREQUISITES AS HIGHLIGHTED**

### **Requirements for the Weather merit badge:**

1. Define meteorology. Explain what weather is and what climate is. Discuss how the weather affects farmers, sailors, aviators, and the outdoor construction industry. Tell why weather forecasts are important to each of these groups.
2. Name five dangerous weather-related conditions. Give the safety rules for each when outdoors and explain the difference between a severe weather watch and a warning. Discuss the safety rules with your family.
3. Explain the difference between high and low pressure systems in the atmosphere. Tell which is related to good and to poor weather. Draw cross sections of a cold front and a warm front showing the location and movements of the cold and warm air, the frontal slope, the location and types of clouds associated with each type of front, and the location of precipitation.
4. Tell what causes wind, why it rains, and how lightning and hail are formed.
5. Identify and describe clouds in the low, middle, and upper levels of the atmosphere. Relate these to specific types of weather.
6. Draw a diagram of the water cycle and label its major processes. Explain the water cycle to your counselor.
7. Identify some human activities that can alter the environment, and describe how they affect the climate and people.
8. Describe how the tilt of the Earth's axis helps determine the climate of a region near the equator, near the poles, and across the area in between.
9. Do ONE of the following:
  - a. Make one of the following instruments: wind vane, anemometer, rain gauge, hygrometer. Keep a daily weather log for 1 week using information from this instrument as well as from other sources such as local radio and television stations or NOAA Weather Radio All Hazards, and Internet sources (with your parent's permission). Record the following information at the same time every day: wind direction and speed, temperature, precipitation, and types of clouds. Be sure to make note of any morning dew or frost. In the log, also list the weather forecasts from radio or television at the same time each day and show how the weather really turned out.
  - b. Visit a National Weather Service office or talk with a local radio or television weathercaster, private meteorologist, local agricultural extension service officer, or university meteorology instructor. Find out what type of weather is most dangerous or damaging to your community. Determine how severe weather and flood warnings reach the homes in your community.

# Weather

(Continued)



10. Give a talk of at least five minutes to a group (such as your unit or a Cub Scout pack) explaining the outdoor safety rules in the event of lightning, flash floods, and tornadoes. Before your talk, share your outline with your counselor for approval.
11. Find out about a weather-related career opportunity that interests you. Discuss with and explain to your counselor what training and education are required for such a position, and the responsibilities required of such a position.

## Notes from Merit Badge Counselor

Bring Completed workbook. Counselor will reach out to all students prior to session to review requirements

# Welding (Level 3)

9:00 AM – 5:00 PM

All Day (Will break briefly for Lunch)



Super Nova Award Merit Badge

## PREREQUISITES AS HIGHLIGHTED

### Requirements for the Welding merit badge:

1. Do the following:
  - a. Explain to your counselor the hazards you are most likely to encounter while welding, and what you should do to anticipate, help prevent, mitigate, or lessen these hazards.
  - b. Show that you know first aid for, and the prevention of, injuries or illnesses that could occur while welding, including electrical shock, eye injuries, burns, fume inhalation, dizziness, skin irritation, and exposure to hazardous chemicals, including filler metals and welding gases.
2. Do the following:
  - a. With your counselor, discuss general safety precautions and Material Safety Data Sheets related to welding. Explain the importance of the MSDS.
  - b. Describe the appropriate safety gear and clothing that must be worn when welding. Then, present yourself properly dressed for welding in protective equipment, clothing, and footwear.
  - c. Explain and demonstrate the proper care and storage of welding equipment, tools, and protective clothing and footwear.
3. Explain the terms welding, electrode, slag, and oxidation. Describe the welding process, how heat is generated, what kind of filler metal is added (if any), and what protects the molten metal from the atmosphere.
4. Name the different mechanical and thermal cutting methods. Choose one method and describe how to use the process. Discuss one advantage and one limitation of this process.
5. Do the following:
  - a. Select two welding processes, and make a list of the different components of the equipment required for each process. Discuss one advantage and one limitation for each process.
  - b. Choose one welding process. Set up the process you have chosen, including gas regulators, work clamps, cables, filler materials, and equipment settings. Have your counselor inspect and approve the area for the welding process you have chosen.



# Welding Merit Badge

(Continued)

6. After successfully completing requirements 1 through 5, use the equipment you prepared for the welding process in 5b to do the following:
  - a. Using a metal scribe or soapstone, sketch your initial onto a metal plate, and weld a bead on the plate following the pattern of your initial.
  - b. Cover a small plate (approximately 3" x 3" x 1/4") with weld beads side by side.
  - c. Tack two plates together in a square groove butt joint.
  - d. Weld the two plates together from 6c on both sides.
  - e. Tack two plates together in a T joint, have your counselor inspect it, then weld a T joint with fillet weld on both sides.
  - f. Tack two plates together in a lap joint, have your counselor inspect it, then weld a lap joint with fillet weld on both sides.
7. Do the following:
  - a. Find out about three career opportunities in the welding industry. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why the profession might interest you.
  - b. Discuss the role of the American Welding Society in the welding profession.



The Eagle Scout Award, the highest award in Scouts BSA, has been awarded to scouts for 100 years. Since 1912, around 4 percent of individuals who were Scouts BSA have earned the award. More than 2 million young people have earned the rank of Eagle Scout since it was first awarded.

Over the years, requirements for the Eagle Scout Award have changed to meet the needs of the era; however, certain elements of the program have remained true from the original Eagle Scout requirements. An individual must demonstrate citizenship and caring for their community and others, leadership qualities, and outdoor skills that show their self-sufficiency and ability to overcome obstacles.

Today, a scout must earn 21 merit badges, 13 of which are required:

First Aid, Camping, Citizenship in the Community, Citizenship in the Nation, Citizenship in the World, Personal Management, Personal Fitness, Swimming or Hiking or Cycling, Communications, Family Life, Emergency Preparedness or Lifesaving, Environmental Science or Sustainability, and Cooking

Beyond the merit badges, a candidate must also plan and carry out a service project to benefit the community. In addition, they must have held a troop leadership position during their Scouting tenure. Finally, the Eagle Scout candidate undergoes a rigorous board of review in which his district, council, and troop leaders evaluate their "attitude and practice of the ideals of Scouting."

Achieving the rank of Eagle Scout must happen before a scout's 18th birthday.

# What is STEM and Nova

## STEM—Science, Technology, Engineering and Mathematics

STEM is part of an initiative the Boy Scouts of America has taken on to encourage the natural curiosity of youth members and their sense of wonder about these fields through existing programs. From archery to welding, Scouts can't help but enjoy the wide range of STEM-related activities. To support this initiative, the BSA developed the Nova Awards program so that youth members have fun and receive recognition for their efforts.



## Why STEM?

We live in a time of great opportunity. The spirit of innovation can help us overcome challenges and ensure a prosperous and secure future. To seize this opportunity, we must position ourselves at the cutting edge of scientific discovery and technological innovation. Yet our country is falling behind in science, technology, engineering and mathematics. This is why many professionals and educators in science, technology, engineering, and mathematics believe the United States should do more now than ever to encourage students to enter STEM-related fields. These experts say our young people need strong STEM skills to compete in the world market. We must work together to cultivate the next generation of critical thinkers and innovators.

*TEN-YEAR EMPLOYMENT PROJECTIONS BY THE U.S. DEPARTMENT OF LABOR SHOW THAT OF THE 20 FASTEST-GROWING OCCUPATIONS PROJECTED FOR 2014, 15 OF THEM REQUIRE SIGNIFICANT MATHEMATICS OR SCIENCE PREPARATION.*

## STEM Is the future

Fostering a strong STEM education is our best opportunity to boost the spirit of innovation. It's what we need to help ensure this country continues on a prosperous and secure journey. STEM literacy is also critical because it has a profound and growing impact on our day-to-day lives. Nature, space exploration, and any STEM-related interest reveals to us the beauty and power of the world we inhabit.

## What Are the Nova Awards?



The Boy Scouts of America developed the Nova Awards program to excite and expand a sense of wonder in our Scouts. By working with an adult counselor or mentor, the various modules allow them to explore the basic principles of STEM and discover how fun and fascinating STEM can be. The Supernova awards are offered for those who enjoy a super challenge. For more information about STEM and the Nova Awards program, visit [www.scouting.org/stem](http://www.scouting.org/stem). Discover how the Nova Awards program helps you be “Prepared.For.Life.”

**QUALIFYING NOVA AWARD MERIT BADGES  
OFFERED AT MERIT BADGE COLLEGE INCLUDE:**

Chess, Digital Technology, Game Design, Sustainability, Weather

**WELDING Merit Badge Qualifies under SUPER NOVA AWARD**



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HUDSON VALLEY COUNCIL

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