

Coin Collecting Requirements

Classroom Completion:

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 expense 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.
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.

Prerequisite (Do at Home before the Class):

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 current 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.
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
10. Do ONE of the following:
 - a. Tour a U.S. Mint facility, a 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 website 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.

Supplies Needed:

- Notebook
- Pen

Class Time:

- Afternoon session from 1:00 am to 4:00 pm (approximately 3 hours)

Class Size:

- 12 Scouts maximum

Family Life Requirements

CLASSROOM:

1. Prepare an outline on what a family is and discuss this with your merit badge counselor. Tell why families are important to individuals and to society. Discuss how the actions of one member can affect other members.
2. List several reasons why you are important to your family and discuss this with your parents or guardians and with your merit badge counselor.
6. Do the following:
 - a. Discuss with your merit badge counselor how to plan and carry out a family meeting.
7. Discuss with your counselor your understanding of what makes an effective parent and why, and your thoughts on the parent's role and responsibilities in the family.

AFTER CLASS:

3. Prepare a list of your regular home duties or chores (at least five) and do them for 90-days. Keep a record of how often you do each of them. Discuss with your counselor the effect your chores had on your family.
4. With the approval of your parents or guardians and your merit badge counselor, decide on and carry out a project that you would do around the home that would benefit your family. Submit a report to your merit badge counselor outlining how the project benefited your family.
5. Plan and carry out a project that involves the participation of your family. After completing the project, discuss the following with your merit badge counselor:
 - a. The objective or goal of the project
 - b. How individual members of your family participated
 - c. The results of the project
6. Do the following:
 - b. After this discussion, plan and carry out a family meeting to include the following subjects:
 - i. Avoiding substance abuse, including tobacco, alcohol, and drug, all of which negatively affect your health and well-being
 - ii. **Understanding the growing-up process and how the body changes, and making responsible decisions dealing with sex***
 - iii. How your chores in requirement 3 contributed to your role in the family
 - iv. Personal and family finances
 - v. A crisis situation within your family
 - vi. The effect of technology on your family
 - vii. Good etiquette and manners

***This conversation may take place with only one or both of your parents or guardians.**

Fingerprinting Requirements

Classroom Completion:

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 (AFIS) now used by law enforcement agencies and the biometric fingerprint systems used to control access to computers and places like buildings and airports.
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 your 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.

Supplies Needed:

- Pencil
- Paper

Class Time:

- Afternoon session from 1:00 pm to 3:00 pm (approximately 2 hours)

Class Size:

- 12 Scouts maximum

Healthcare Professions Requirements

- 1) Select three of the professions from Group 1 listed below which interest you, then complete the following:
 - a. Briefly describe to your counselor the roles these professionals play in the delivery of healthcare.
 - b. Describe to your counselor the educational and licensing requirements for the professionals you selected.

Group 1:

- 1) Allopathic physician (MD) — all specialties
- 2) Osteopathic physician (DO) — all specialties
- 3) Podiatrist (DPM)
- 4) Chiropractor (DC)
- 5) Nurse Practitioner (NP)
- 6) Psychologist (PhD or PsyD)
- 7) Optometrist (OD)
- 8) Audiologist (AudD)

- 2) Select three of the professions from Group 2 listed below which interest you, then complete the following:
 - a. Briefly describe to your counselor the roles these professionals play in the delivery of health care.
 - b. Describe to your counselor the educational and licensing requirements for the professionals you selected.

Group 2:

- 1) Physician Assistant (PA)
- 2) Registered Nurse (RN)
- 3) Certified Nurse Midwife (CNM)
- 4) Certified Nurse Assistant (CNA)
- 5) Licensed Practical Nurse (LPN/LVN)
- 6) Nurse Anesthetist (CRNA)
- 7) Pharmacist (PharmD)
- 8) Pharmacy Technician
- 9) Emergency Medical Technician
- 10) EMT/Paramedic

- 3) Select three of the professions from Group 3 listed below which interest you, then complete the following:
 - a. Briefly describe to your counselor the roles these professionals play in the delivery of healthcare.
 - b. Describe to your counselor the educational and licensing requirements for the professionals you selected.

Group 3:

- 1) Physical Therapist (DPT)
 - 2) Occupational Therapist (OT)
 - 3) Orthotist/Prosthetist
 - 4) Medical Appliance Technician
 - 5) Respiratory Therapist (RT)
 - 6) Medical Assistant
 - 7) Dietitian (RD)
 - 8) Speech-Language Pathologist (Speech Therapist) (SLP)
- 4) Select three of the professions from Group 4 listed below which interest you, then complete the following:
- a. Briefly describe to your counselor the roles these professionals play in the delivery of health care.
 - b. Describe to your counselor the educational and licensing requirements for the professionals you selected.

Group 4:

- 1) Biomedical Engineer (BME)
 - 2) Medical Technologist
 - 3) Phlebotomist
 - 4) Radiology Technologist
 - 5) Sonographer
 - 6) Medical Records Specialist
 - 7) Cytopathologist
 - 8) Histotechnologist
- 5) Select one career from any of the lists in Requirements 1, 2, 3, or 4 and arrange to visit that professional at their workplace. Discuss with your counselor the following:
- a. Why did they choose their particular career?
 - b. What do they most like about their job?
 - c. What are their biggest challenges in doing their job?
 - d. Identify the tools/instruments that may be used in their jobs.
 - e. What has been the most surprising aspect of their career?
 - f. What continuing education requirements are required to maintain certification
- 6) Discuss with your counselor your understanding of the meaning of the Physician's Oath.
- 7) Describe the role of confidentiality between a patient and the health care provider. What is HIPAA?
- 8) Identify a medical advancement or discovery that has been in the news recently. Discuss with your counselor how this can affect patient care.
- 9) With approval of your counselor and parents/guardian, serve as a volunteer at a health related event or facility in your community (e.g. blood drive, health fair, blood pressure screening event). Report to your counselor what you did and learned from the experience.

Supplies Needed:

- Notebook
- Pen

Class Time:

- Morning session from 8:00 am to 12:00 pm (approximately 4 hours)

Class Size:

- 12 Scouts maximum

Requirement Completion Plan:

- BEFORE CLASS:
 - Scouts should make their selections for Requirements 1-4 and do their career research. Selections will be discussed in class.
- CLASSWORK:
 - a & b from each of Requirements 1-4
 - Requirements 6-8
- EITHER BEFORE OR AFTER CLASS:
 - Requirement 5
 - Requirement 9



PUBLIC SPEAKING: REQUIREMENTS

For: Silver Comet Merit Badge Day on February 12th at McEachern UMC.

From: Jeff Starnes, Merit Badge Counselor jlstarnes@bellsouth.net

To: All registered Scouts and their Adult Partners.

Welcome Scouts to Public Speaking!

I have attempted to create a class that will enable diligent Scouts to satisfy ALL requirements so long as they are “prepared” and have completed the work. Remember, as with any Merit Badge, you are not required to complete any or all of the requirements; how much you do is entirely up to the individual Scout. I will have more details on what each requirement consists of so make sure you come prepared to discuss the topics and present the required speeches.

What to Bring:

1. Pen/pencil and scrap paper.
2. A “blue card” **SIGNED** by your Scoutmaster!
3. Most recent workbook [found here](#).
4. A “cheat sheet” of Roberts Rules of Order [found here](#).
5. Positive attitude! There is a LOT of information to complete in a short time...

Here is a summary of what we will be doing:

1. Give a three- to five-minute introduction of yourself to an audience such as your troop, class at school, or some other group. (Include interesting or unusual things about you that people would always remember or set you apart from the crowd.)
 2. Prepare a three- to five-minute talk on a topic of your choice that incorporates body language and visual aids. (You might want to describe your favorite toy or souvenir from a special trip and use it as your visual aid.)
 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. **I will provide each Scout a topic to discuss; this is one part that you cannot prepare for.**
 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, and then deliver it in the conversational way. **Complete a standard speech outline that is related to your speech; DO NOT simply write “Introduction, body, etc.” in the space provided.**
 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. **If the group can agree on a topic to debate we will do so...**
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Railroading Requirements

Classroom:

1. Do THREE of the following:
 - a. Name three types of modern freight trains. Explain why unit trains are more efficient than mixed freight trains.
 - b. Name one Class I or regional railroad. Explain what major cities it serves, the locations of major terminals, service facilities and crew change points, and the major commodities it carries.
 - c. Using models or pictures, identify 10 types of railroad freight or passenger cars. Explain the purpose of each type of car.
 - d. Explain how a modern diesel or electric locomotive develops power. Explain the terms dynamic braking and radial steering trucks.
2. Do the following:
 - a. Explain the purpose and formation of Amtrak. Explain, using a timetable, a plan for making a trip by rail between two cities at least 500 miles apart. List the times of departure and arrival at your destination, the train number and name, and the type of service you want.
 - b. List and explain the various forms of public/mass transit using rail.
3. Do ONE of the following:
 - a. Name four departments of a railroad company. Describe what each department does.
 - b. Tell about the opportunities in railroading that interest you most and why.
 - c. Name four rail support industries. Describe the function of each one.
 - d. With your parent's and counselor's approval, interview someone employed in the rail industry. Learn what that person does and how this person became interested in railroading. Find out what type of schooling and training are required for this position.
4. Explain the purpose of Operation Lifesaver and its mission.
5. Do THREE of the following:
 - a. List five safety precautions that help make trains safer for workers and passengers.
 - b. Explain to your merit badge counselor why safety around rights-of-way is important.
 - c. List 10 safety tips to remember when you are near a railroad track (either on the ground or on a station platform) or aboard a train.
 - d. Tell your counselor about the guidelines for conduct that should be followed when you are near or on railroad property. Explain the dangers of trespassing on railroad property.
 - e. Tell what an automobile driver can do to safely operate a car at grade crossings, and list three things an automobile driver should never do at a grade crossing.
 - f. Tell how to report a malfunction of grade crossing warning devices.
 - g. List safety precautions a pedestrian should follow at a public crossing.
6. Explain the appearance and meaning of the following warning signs and devices: advance warning sign, pavement markings, crossbucks, flashing red lights, crossing gates.
7. Do EACH of the following:
 - a. Explain how railroad signals operate and show two basic signal types using color or configuration.
 - b. Explain the meaning of three horn signals.
 - c. Describe a way to signal a train for an emergency stop.
 - d. Explain the use and function of the EOTD (end-of-train device), or FRED (flashing rear end device), used on the last car of most freight trains.

BEFORE OR AFTER CLASS:

8. Select ONE of the following special-interest areas and complete the requirements.
 - a. Model Railroad With your parent's and counselor's approval, do TWO of the following:
 1. Draw a layout of your own model railroad or one that could be built in your home. Design a point-to-point track or loop with different routings. Include one of the following: turnaround or terminal or yard or siding.
 2. Build one model railroad car kit or one locomotive kit.
 3. Name the scale of four popular model railroad gauges. Identify the scale of four model cars or locomotives.
 4. Locate the website of four model railroad-related manufacturers or magazine publishers. Print information on their products and services and discuss the information with your counselor.
 5. Build one railroad structure (from scratch or using a kit), paint and weather the structure, mount it on your layout or diorama, and make the surrounding area on the diorama scenic.
 6. Alone or with others, build a model railroad or modular layout including ballast and scenery. Make electrical connections and operate a train. Describe what you enjoyed most.
 7. Participate in a switching contest on a timesaver layout and record your time.
 - b. Railfanning With your parent's and counselor's approval, do TWO of the following:
 1. Visit a railroad museum, historical display, or a prototype railroad sponsored public event. With permission, photograph, videotape, or sketch items of interest. Explain what you saw and describe your photos, sketches, or videotape.
 2. Purchase tickets and ride a scenic or historic railroad. Under supervision, photograph the equipment and discuss with your counselor the historic significance of the operation.
 3. Locate the website of four rail historical groups, then find information on the history of the rail preservation operations and purpose of each group. Talk with a member of one of the groups and find out how you might help.
 4. Plan a trip by rail between two points. Obtain a schedule and explain when the train should arrive at two intermediate points. Purchase the tickets and make the trip. Explain to your counselor what you saw.

Supplies Needed:

- Notebook
- Pen

Class Time:

- Afternoon session from 1:00 am to 5:00 pm (approximately 4 hours)

Class Size:

- 12 Scouts maximum

Soil & Water Conservation Requirements

CLASSROOM:

1. Do the following:
 - a. Tell what soil is. Tell how it is formed.
 - b. Describe three kinds of soil. Tell how they are different.
 - c. Name the three main plant nutrients in fertile soil. Tell how they can be put back when used up.
2. Do the following:
 - a. Define soil erosion.
 - b. Tell why it is important. Tell how it affects you.
 - c. Name three kinds of soil erosion. Describe each.
3. Do the following:
 - a. Tell what is meant by conservation practices.
 - b. Describe the effect of three kinds of erosion-control practices.
4. Do the following:
 - a. Explain what a watershed is.
 - b. Outline the smallest watershed that you can find on a contour map.
 - c. Then outline on your map, as far as possible, the next larger watershed which also has the smallest in it.
 - d. Explain what a river basin is. Tell why all people living in a river basin should be concerned about land and water use in it.
 - e. Explain what an aquifer is and why it can be important to communities.
5. Do the following:
 - b. Show by demonstration at least two of the following actions of water in relation to soil: percolation, capillary action, precipitation, evaporation, transpiration.
 - c. Explain how removal of vegetation will affect the way water runs off a watershed.
 - d. Tell how uses of forest, range, and farmland affect usable water supply.
 - e. Explain how industrial use affects water supply.
6. Do the following:
 - a. Tell what is meant by "water pollution."
 - b. Describe common sources of water pollution and explain the effects of each.
 - c. Tell what is meant by "primary water treatment," "secondary waste treatment," and "biochemical oxygen demand."

BEFORE OR AFTER CLASS:

2. Do the following:
 - d. Take pictures or draw two kinds of soil erosion.
3. Do the following:
 - c. Take pictures or draw three kinds of erosion-control practices.
5. Do the following:
 - a. Make a drawing to show the hydrologic cycle.
6. Do the following:
 - d. Make a drawing showing the principles of complete waste treatment.
8. Do TWO of the following:
 - a. Make a trip to TWO of the following places. Write a report of more than 500 words about the soil and water and energy conservation practices you saw.

- i. An agricultural experiment
 - ii. A managed forest or woodlot, range, or pasture
 - iii. A wildlife refuge or a fish or game management area
 - iv. A conservation-managed farm or ranch
 - v. A managed watershed
 - vi. A waste-treatment plant
 - vii. A public drinking water treatment plant
 - viii. An industry water use installation
 - ix. A desalinization plant
- b. Plant 100 trees, bushes, and/or vines for a good purpose.
 - c. Seed an area of at least 1/5 acre for some worthwhile conservation purpose, using suitable grasses or legumes alone or in a mixture.
 - d. Study a soil survey report. Describe the things in it. On tracing paper over any of the soil maps, outline an area with three or more different kinds of soil. List each kind of soil by full name and map symbol.
 - e. Make a list of places in your neighborhood, camps, school ground, or park that have erosion, sedimentation, or pollution problems. Describe how these could be corrected through individual or group action.
 - f. Carry out any other soil and water conservation project approved by your merit badge counselor.

Supplies Needed:

- Notebook
- Pen or pencil

Class Time:

- Morning session from 8:00 am to 11:00 pm (approximately 3 hours)

Class Size:

- 12 Scouts maximum

Weather Requirements

Classroom Completion:

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.
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.
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 Earth's axis helps determine the climate of a region near the equator, near the poles, and across the area in between.
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.

Prerequisite (Do at Home before the Class):

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.
6. Draw a diagram of the water cycle and label its major processes. Explain the water cycle to your counselor.
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 one week using information from this instrument as well as from other sources such as local radio and television stations, 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 a 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.
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. ****The at-home assignment includes**

preparing your five-minute talk. Scouts will review their outline with their counselor and give the actual talk during class time.

Supplies Needed:

- Notebook
- Pen

Class Time:

- Morning session from 8:00 am to 12:00 pm (approximately 4 hours)

Class Size:

- 12 Scouts maximum