Weekend Online Merit Badge Requirements Instructions

Please read and submit your work prior to Saturday for your merit badge as many of these actions need to be taken before your class. There is little time between periods and before the last period on Sunday afternoon to complete these actions prior.

All merit badges have 3 - 1 hour class periods, one in each of Saturday morning, Saturday afternoon, and Sunday afternoon and you need to be present and participate in discussion in each of these 3 periods and follow the instructions below to have a chance at completing the merit badge.

(in alphabetical order)

**Archaeology**

4a. Learn about 5 archaeological sites located both within and outside the US and for EACH site you research, point it out on a map and explain how it was discovered. Describe some of the information about the past that has been found at each site. Explain how the information gained from the study of these sites answers questions that archaeologists are asking and how the information may be important to modern people. Compare the relative ages of the sites you research. You will discuss your 4 sites in class and the 5th site in Flipgrid. You can find many different sites at <https://www.pbs.org/time-team/explore-the-sites/> or many other sites when you search on your computer.

4b. Choose ONE of the sites you picked and give a short presentation about your findings to a Cub Scout pack, your Scout troop, your school class, or another group. flip grid: [https://flipgrid.com/9eda8305](https://webmail.suddenlink.net/do/redirect?url=https%253A%252F%252Fflipgrid.com%252F9eda8305&hmac=d2f4bc5b98304384ae255f00abcbb97c) Password: LPSRcamp Email your Flipgrid presentation to [Lpsrarchaelogy@gmail.com](mailto:Lpsrarchaelogy@gmail.com)

7a. View the virtual visit of this museum and be ready to discuss how artifacts aid in conveying history.

<https://artsandculture.google.com/streetview/british-museum/AwEp68JO4NECkQ?sv_lng=-0.1267321598454885&sv_lat=51.51917353408094&sv_h=290.7210214600021&sv_p=38.421606898133064&sv_pid=297xbKRcNnRMxN7653cWpA&sv_z=1.0000000000000002>

8b. Learn and visit a virtual archaeology site by view the following and be ready to discuss in class: [https://www.amnh.org/explore/ology/archaeology/tools-of-the-trade2](https://webmail.suddenlink.net/do/redirect?url=https%253A%252F%252Fwww.amnh.org%252Fexplore%252Fology%252Farchaeology%252Ftools-of-the-trade2&hmac=3e4dca5ab15a0fd93343f48aa50c4012)   <https://www.amnh.org/explore/ology/paleontology/layers-of-time2>

<https://www.amnh.org/explore/ology/archaeology/inca-investigation2> <https://www.youtube.com/watch?v=Hm0ZhNUlqIQ> <https://www.youtube.com/watch?v=0PNPSR1TdP4>

9b. Use the methods of experimental archaeology to re-create an item or to practice a skill from the past. Write a brief report explaining the experiment and its results. Visit this site to see what big groups can do with experimental archaeology:

<https://exarc.net/issue-2020-2/ea/roar-ege-lifecycle-reconstructed-viking-ship>

Cooking on charcoal or wood using an orange or grapefruit shell to cook an egg or corn meal bread. Or experiment with grasses or corn husk to weave them together to see if you can carry water or just berries. Or what would the archaeologists learn from building a catapult? <https://www.youtube.com/watch?v=A6hQsJxzIws> Email your picture of what you made to [Lpsrarchaelogy@gmail.com](mailto:Lpsrarchaelogy@gmail.com)

11. Identify three career opportunities in archaeology. Pick one and explain how to prepare for such a career, what education and training are required, and explain why this profession might interest you. We will discuss this in class.

**Aviation**

2e. Explain the purposes and functions of the various instruments found in a typical single-engine aircraft: attitude indicator, heading indicator, altimeter, airspeed indicator, turn and bank indicator, vertical speed indicator, compass, navigation (GPS and VOR) and communication radios, tachometer, oil pressure gauge, and oil temperature gauge

This information can be found in the merit badge book or online. There will be a Kahoot over this in class.

2f. Create an original poster of an aircraft instrument panel. Include and identify the instruments and radios discussed in requirement 2e.

A photo or scan can be emailed to me at [Lpsraviation@gmai.com](mailto:Lpsraviation@gmai.com).

Build the fpg-9 foam glider prior to the first class. This template is designed for use with 9” Styrofoam plates.

Pattern: <http://www.amaflightschool.org/sites/default/files/FPG9template.pdf>

Written directions: <https://amaflightschool.org/diy/fpg-9-foam-glider>

Video tutorial: <https://www.youtube.com/watch?v=pNtew_VzzWg>

3b. Get others in your troop or patrol to make their own model, then organize a competition to test the precision of flight and landing of the models. Social distancing: virtual competition. Have your friends or family make their own with the instructions provided and send photos and records testing precision of flight and landing. Email me with any photos or recorded numbers for completion at [Lpsraviation@gmai.com](mailto:Lpsraviation@gmai.com).

4c. Visit an aviation museum. Report on your impressions. We will discuss in class.

<https://www.navalaviationmuseum.org/education/virtual-tour/>

5. Find out about three career opportunities in aviation. 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.

We will present these in class.

**Coin Collecting, Collections, and Stamp Collecting**

Not available in August but information will be added later for September and October classes.

**Crime Prevention**

2. Prepare a journal from various sources that address crime and crime prevention efforts in your community.

4a. Inspect your neighborhood for opportunities that may lead to crime. Learn how to do a crime prevention survey.

4b. Using the checklist in this pamphlet, conduct a security survey of your home and discuss the results with your family. 5. Teach your family 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.

(c) Make a presentation to a group that addresses the issue. Use flipgrid at: [https://flipgrid.com/18f8cb15](https://webmail.suddenlink.net/do/redirect?url=https%253A%252F%252Fflipgrid.com%252F18f8cb15&hmac=375b795d99e8e90bd4ff7357ae45a90a) Password: LPSRcamp

7b. Watch the virtual jail visits. Discuss your experience with your class. <https://www.youtube.com/watch?v=cm031t9qkXk> <https://www.youtube.com/watch?v=gDIaA2e0BsU>

<https://www.facebook.com/OverlandParkPoliceDepartment/videos/virtual-station-tour-jail/1586392041527072/>

9d. 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. We will discuss in class.

**Disability Awareness**

4. Option A. Visit TWO of the following locations (these can be virtual tours if available) 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.

Your school Your place of worship A Scouting event or campsite A public exhibit or attraction (such as a theater, museum, or park)

<https://www.youtube.com/watch?v=5iAgi63mwZ8> <https://www.navalaviationmuseum.org/education/virtual-tour/>

**Electricity**

2. Complete an electrical home safety inspection of your home, using the checklist found in this pamphlet or one approved by your counselor. Discuss what you find with your counselor.

See attached safety document.

3. Make a simple electromagnet and use it to show magnetic attraction and repulsion.

<https://www.youtube.com/watch?v=na_FpTXLFa8>

5. Make a simple drawing to show how a battery and an electric bell work.

Use the internet or MB book to draw a circuit diagram showing the battery, bell, and switch.

6. Explain why a fuse blows or a circuit breaker trips. Tell how to find a blown fuse or tripped circuit breaker in your home. Show how to safely reset the circuit breaker.

Know where the fuse box is in your home.

8. Make a floor plan wiring diagram of the lights, switches, and outlets for a room in your home. Show which fuse or circuit breaker protects each one.

Different fuses can be shown with different colored pencils.

9. Do the following: a. Read an electric meter and, using your family’s electric bill, determine the energy cost from the meter readings.

11. Do any TWO of the following:

a. Connect a buzzer, bell, or light with a battery. Have a key or switch in the line.

b. Make and run a simple electric motor (not from a kit).

<https://www.youtube.com/watch?v=WI0pGk0MMhg>

c. Build a simple rheostat. Show that it works.

<https://www.youtube.com/watch?v=gfJs6AN1eOk>

Videos and pictures can be sent to [Lpsrelectricity@gmail.com](mailto:Lpsrelectricity@gmail.com)

**Fingerprinting**

Scouts need access to Kahoot, and have paper, a number two pencil, and 10 or more pieces of clear tape.

**Geology**

2. Pick three resources that can be extracted or mined from Earth for commercial use. Discuss with your counselor how each product is discovered and processed.

Will discuss your 3 resources in class.

4. Do ONE of the following:

(b) Find out about three career opportunities available in geology. 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.

Will discuss your choices in class.

5(a) With your parent’s and counselor’s approval, visit an active mining site, quarry, or sand and gravel pit. Tell your counselor what you learned about the resources extracted from this location and how these resources are used by society.

<https://riotintokennecott.com/virtual-tour/>

Will discuss the virtual tour in class.

**Graphic Arts**

Requirements 3,4,6,and 7 are prerequisites. Materials needed: access to a computer with some form of editing software (i.e. photoshop). Products can be emailed to [Lpsrgraphicarts@gmail.com](mailto:Lpsrgraphicarts@gmail.com)

3. Design a printed piece (flier, T-shirt, program, form, etc.) and produce it.

4. Produce the design you created for requirement 3 using the following printing processes:

c. Electronic/digital printing. Create a layout in electronic form, download it to the press or printer, and run 50 copies. If no electronic interface to the press or printer is available, you may print and scan a paper copy of the layout.

6. Do the following, then describe the highlights of your visit:

d. Visit three websites (with your parent’s permission) that belong to graphic arts professional organizations and/or printing-related companies (suppliers, manufacturers, printers). With permission from your parent or counselor, print out or download product or service information from two of the sites.

7. Find out about three career opportunities in graphic arts. 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. (Discussion will be done in class)

<https://fremont.edu/top-8-graphic-design-jobs/>  <https://pgsf.org/careers/potential-jobs-in-the-graphic-arts/>

**Moviemaking**

Requirements 3b & 4 are prerequisites. materials needed: Camera and tripod

3b. 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.

**Painting**

3. Prepare and paint two different surfaces using patching material, caulking, and the proper primers and topcoats. Suggested projects include an interior or exterior wall, a door, a piece of furniture, a concrete wall or floor, a porch rail, or a fence.   
4. Prepare and paint an item using harmonizing colors that you have selected using the color wheel in this book.  
5. Show the right way to use, clean, maintain, and store painting equipment.  
8. Find out about career opportunities in the painting craft. Discuss the training and experience required and explain why this profession might interest you.

Email your pictures to [Lpsrpainting@gmail.com](mailto:Lpsrpainting@gmail.com)

**Pets**

1. Present evidence that you have cared for a pet for four months. Provide an email to [Lpsrpets@gmail.com](mailto:Lpsrpets@gmail.com) from your parents or guardian stating the pet’s name, description, and actions taking in caring for the pet over the 4 month period.

2. Write in 200 words or more about the care, feeding, and housing of your pet. Tell some interesting facts about it. Tell why you have this kind of pet. Give local laws, if any, relating to the pet you keep. Email report to [Lpsrpets@gmail.com](mailto:Lpsrpets@gmail.com)

3. Show that you have read a book or pamphlet, about your kind of pet. The book or pamphlet will be discussed in the Sunday afternoon session.

4a. Show your pet in a pet show. This pet show will be conducted on Saturday afternoon during the Zoom session. You will have your pet to show to the others and will go over in the first session Saturday morning the required description and facts you need to present during the show.

**Railroading**

Railroading - no materials required

**Traffic Safety**

Need a family car/truck/van and a way to record yourself in/around the car (such as a mobile phone/cameras)  
tape measure, and stakes.

**Truck Transportation**

4. Visit both of these sites and be ready to discuss 4a through 4e in class:

[https://youtu.be/2lBisQSBDns](https://webmail.suddenlink.net/do/redirect?url=https%253A%252F%252Fyoutu.be%252F2lBisQSBDns&hmac=037e01fc4fac40d3ad43461f89495ee5) [https://youtu.be/RF-Jm9ciqd0](https://webmail.suddenlink.net/do/redirect?url=https%253A%252F%252Fyoutu.be%252FRF-Jm9ciqd0&hmac=b22cb836d8c12d91b8f3912d620af524)