

## Fall Merit Badge Day



When: Saturday, October 29, 2016

Time: Check-in starts 6:30am, Badges: 7:00am – 3:30pm

Where: **LDS Bear Canyon Ward**

**9541 E. Snyder Road**

**Tucson, AZ 85749**

Early-Enrollment Deadline is: **October 17, 2016**

**Cost: \$8.00 per person, Lunch Included**

**Late Registration/Walk-ins - \$14.00**

To Register: <https://catalinacouncil.org/fall-merit-badge-day/>

Questions: Stan Stachowiak

(520) 722-4079

**Class “A” uniform required for all Scouts**

### **Merit Badges Offered:**

Full-Day Merit Badges: Automotive Maintenance, Chess, Citizenship in the Community, Citizenship in the Nation, Citizenship in the World, Communications, **Emergency Preparedness**, Environmental Science, First Aid, Game Design

Half Day Merit Badges: ) Chemistry(am only), Digital Technology (am & pm), **Energy (am & pm)**, **Geology** (am & pm), **Indian Lore** (am & pm), Inventing (am & pm), **Law** (am & pm), Nuclear Science (pm only), Painting (am & pm), **Personal Management** (am & pm), Plumbing (am & pm), Programming (am & pm), Search and Rescue (am & pm), Welding (am & pm), **Woodwork** (am & pm)

NO Pre-work Cit. in World, Game Design, Geology, Indian Lore, Law, Nuclear Science, Painting, & Plumbing

**For All other badges see pre-work below !!**

\*\*\*\* Badges in **BOLD** are new offerings for this clinic. \*\*\*\*

All requirements per: [http://meritbadge.org/wiki/index.php/Merit\\_Badges](http://meritbadge.org/wiki/index.php/Merit_Badges)

### **Tips for Scouts To Prepare:**

- Pre-register !!!
- **Bring a signed Blue card(s) for each Merit Badge you wish to do !!!**
- Get a merit Badge Pamphlet – Available at the Scout Store
- Read the Pamphlet prior to attending the clinic !!
- Do the Pre-requisites, otherwise only a partial can be earned for many of the badges. Bringing the information or proof of completion such as a note signed by a troop leader for a pre-requisite is acceptable.

### **Automotive Maintenance**

#### **Pre-work: 12, bring a shirt to wear over your uniform that you can get dirty !!**

12. Find out about three career opportunities in the automotive industry. 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.

### **Chemistry**

#### **Pre-work: 6a**

6.a. Name two government agencies that are responsible for tracking the use of chemicals for commercial or industrial use. Pick one agency and briefly describe its responsibilities to the public and the environment.

### **Chess: Bring a Chess Set to the MB Day if you can !!**

#### **Pre-work: 3**

3. Demonstrate to your counselor that you know each of the following. Then, using Scouting's Teaching EDGE, teach the following to a 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 .

You may learn about [Scouting's Teaching EDGE](#) from your unit leader, another Scout, or by attending training.

### **Citizenship in the Community**

#### **Pre-work: Requirement 3a,b,7a,b,c,8**

3. Do the Following:
  - a. Attend a city/town council meeting, school board meeting, or municipal, county, or state court session.
  - b. Choose one of the issues discussed at the meeting where a difference of opinion was expressed, and explain to your counselor why you agree with one of the opinions.
7. Do the Following
  - a. Choose an organization outside of scouting that interests you and brings people together for the good of the community.
  - b. Using a variety of resources learn about this organization.

- c. Perform 8 hours of volunteer service for this organization. (a note from a representative of the organization is required, verifying service).
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.

## **Citizenship in the Nation**

Pre-work: **Requirement 2,3,8**

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.
8. Write a letter to a congressman on a topic of your choosing. (Bring the written letter for review with your counselor to the MB Day)

## **Citizenship in the World**

Pre-work: **None**

## **Communications**

**See Registration/Notification website for pre-work/counselor expectations.**

## **Digital Technology**

**Pre-work:** Complete the following: Cyber Chip (<http://www.netsmartz.org/scouting>), 5B, 5C, and two projects from requirement 6 except 6F which we will do in class (bring the projects to class on a USB drive).

## **Emergency Preparedness**

Pre-work: **Requirement 1, 2b, 2c, 6c 7b, 8b, 9a**

Please submit all paperwork with your First and Last Name, Unit Name (Troop, Crew, etc.), Number, and District. If you are from a Council other than Catalina please include that also. All paperwork must be typed so that it can be read faster since there will be many Scouts attending.

1. This requirement must be earned outside this class. It is not needed to take the class, but being very familiar with first aid and the First Aid merit badge requirements is highly recommended.
- 2b Bring your chart to the class.
- 2c Bring your kit to class (whether purchased or built), and the plan you made for your family. Discuss the plan with your family before coming to class. Have your family's responses typed out and bring it to class.

6c Do this before the class. Type your findings and bring them to class with you.

7b. Prepare a written plan & bring a copy of your troops plan.

8b Bring your personal emergency service pack and your prepared family emergency kit.

9a Here is a safety checklist if you choose that option. Please write OK next to those items that passed. Please write UNSAFE next to those items that need correction. Please write NOT SURE next to those items you have questions on to determine it as OK or UNSAFE.

**Electrical:**

1. Check to make sure extension cords are in good condition.

That is they aren't frayed, showing exposed wires, or other signs of damage. They shouldn't be run under carpet or in high traffic areas.

2. Check any outlets for overloading, do any of them have multiple items plugged in?

3. Are all the GFCI outlets in your home working?

**Smoke Detectors:**

1. Each one in your home has a battery one year old or less?

2. Has been tested in the past month?

Multi-Purpose Fire Extinguisher (usually an ABC type):

1. Is it charged and in the green?

2. Is it 6 years old or less?

**Clothes Dryer:**

Is the lint filter screen clean?

**House Address:**

Is it easily visible from the street for the Fire Department or Police in an emergency?

**Water Heater / Furnace:**

Are there any combustible (burnable) objects near them?

**Energy:**

**Pre-work: 1a,4,4a**

1. Do the following:

a. Find an article on the use or conservation of energy. Discuss with your counselor what in the article was interesting to you, the questions it raises, and what ideas it addresses that you do not understand.

4. Conduct an energy audit of your home. Keep a 14 day log that records what you and your family did to reduce energy use. Include the following in your report and, after the 14 day period, discuss what you have learned with your counselor.

a. List the types of energy used in your home such as electricity, wood, oil, liquid petroleum, and natural gas, and tell how each is delivered and measured, and the current cost; OR record the transportation fuel used, miles driven, miles per gallon, and trips using your family car or another vehicle.

**Environmental Science**

**Pre-work: Requirement 3e&F , 4,,6**

3. Do ONE activity in EACH of the following categories (using the activities in this {the merit badge} pamphlet as the basis for planning and carrying out your projects):

**e. Endangered Species**

1. Do research on one endangered species found in your state. Find out what its natural habitat is, why it is endangered, what is being done to preserve it, and how many individual organisms are left in the wild. Prepare a 100-word report about the organism, including a drawing. Present your report to your patrol or troop.

2. Do research on one species that was endangered or threatened but which has now recovered. Find out how the organism recovered, and what its new status is. Write a 100-word report on the species and discuss it with your counselor.
3. With your parent's and counselor's approval, work with a natural resource professional to identify two projects that have been approved to improve the habitat for a threatened or endangered species in your area. Visit the site of one of these projects and report on what you saw.

#### **f. Pollution Prevention, Resource Recovery, and Conservation**

1. Look around your home and determine 10 ways your family can help reduce pollution. Practice at least two of these methods for seven days and discuss with your counselor what you have learned.
2. Determine 10 ways to conserve resources or use resources more efficiently in your home, at school, or at camp. Practice at least two of these methods for seven days and discuss with your counselor what you have learned.
3. Perform an experiment on packaging materials to find out which ones are biodegradable. Discuss your conclusions with your counselor.
4. Choose two outdoor study areas that are very different from one another (e.g., hilltop vs. bottom of a hill; field vs. forest; swamp vs. dry land). For BOTH study areas, do ONE of the following:
  - a. Mark off a plot of 4 square yards in each study area, and count the number of species found there. Estimate how much space is occupied by each plant species and the type and number of non-plant species you find. Write a report that adequately discusses the biodiversity and population density of these study areas. Discuss your report with your counselor.
  - b. Make at least three visits to each of the two study areas (for a total of six visits), staying for at least 20 minutes each time, to observe the living and nonliving parts of the ecosystem. Space each visit far enough apart that there are readily apparent differences in the observations. Keep a journal that includes the differences you observe. Then, write a short report that adequately addresses your observations, including how the differences of the study areas might relate to the differences noted, and discuss this with your counselor.
6. Find out about three career opportunities in environmental science. 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.

### **First Aid**

#### **Pre-work:**

1. Satisfy your counselor that you have current knowledge of all first aid requirements for [Tenderfoot Rank](#), [Second Class Rank](#), and [First Class Rank](#). (signed note from Scoutmaster or scout book with requirements signed off satisfy this requirement).
2. Bring a first aid kit you assembled to the MB Day.

### **Game Design**

#### **Pre-work: none**

### **Geology**

#### **Prerequisites: None**

### **Indian Lore:**

#### **Pre-work: none**

## Inventing

### Pre-work: 2,6,7,8

2. Do ONE of the following:

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

b. Read about three inventors. Select the one you find most interesting and tell your counselor what you learned.

6. Think of an item you would like to invent that would solve a problem for your family, troop, chartered organization, community, or a special-interest group. Then do EACH of the following, while keeping a notebook to record your progress:

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

b. Create a model of the invention using clay, cardboard, or any other readily available material. List the materials necessary to build a prototype of the invention.

c. Share the idea and the model with your counselor and potential users of your invention. Record their feedback in your notebook.

7. Build a working prototype of the item you invented for requirement 6\*. Test and evaluate the invention. Among the aspects to consider in your evaluation are cost, usefulness, marketability, appearance, and function. Describe how your original vision and expectations for your invention are similar or dissimilar to the prototype you built. Have your counselor evaluate and critique your prototype.

**Before you begin building the prototype, you must have your counselor's approval, based on the design and building plans you have already shared.**

8. Do ONE of the following:

a. Participate with a club or team (robotics team, science club, or engineering club) that builds a useful item. Share your experience with your counselor.

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

## Law

### Pre-work: none

## Nuclear Science

### Pre-work: none

## Painting

Pre-work: none

Scouts should wear an old t-shirt below their Class A uniform for use during the class.

## Personal Management

Pre-work: 1, 2, 8, 9, 10: (Requirements not completed before or during MB Day may be followed up to completion with the MB Day counselor or with your home troop)

1. Do the following:
  - a. Choose an item that your family might want to purchase that is considered a major expense.
  - b. Write a plan that tells how your family would save money for the purchase identified in requirement 1a.
    1. Discuss the plan with your merit badge counselor
    2. Discuss the plan with your family
    3. Discuss how other family needs must be considered in this plan.
  - c. Develop a written shopping strategy for the purchase identified in requirement 1a.
    1. Determine the quality of the item or service (using consumer publications or rating systems).
    2. Comparison shop for the item. Find out where you can buy the item for the best price. (Provide prices from at least two different price sources.) Call around; study ads. Look for a sale or discount coupon. Consider alternatives. Can you buy the item used? Should you wait for a sale?
2. Do the following:
  - a. Prepare a budget reflecting your expected income (allowance, gifts, wages), expenses, and savings. Track your actual income, expenses, and savings for 13 consecutive weeks. (You may use the forms provided in this pamphlet, devise your own, or use a computer generated version.) When complete, present the results to your merit badge counselor.
  - b. Compare expected income with expected expenses.
    1. If expenses exceed income, determine steps to balance your budget.
    2. If income exceeds expenses, state how you would use the excess money (new goal, savings).
8. Demonstrate to your merit badge counselor your understanding of time management by doing the following:
  - a. Write a "to do" list of tasks or activities, such as homework assignments, chores, and personal projects, that must be done in the coming week. List these in order of importance to you.
  - b. Make a seven-day calendar or schedule. Put in your set activities, such as school classes, sports practices or games, jobs or chores, and/or Scout or church or club meetings, then plan when you will do all the tasks from your "to do" list between your set activities.

c. Follow the one-week schedule you planned. Keep a daily diary or journal during each of the seven days of this week's activities, writing down when you completed each of the tasks on your "to do" list compared to when you scheduled them.

9. Prepare a written project plan demonstrating the steps below, including the desired outcome. This is a project on paper, not a real-life project. Examples could include planning a camping trip, developing a community service project or a school or religious event, or creating an annual patrol plan with additional activities not already included in the troop annual plan. Discuss your completed project plan with your merit badge counselor.
  - a. Define the project. What is your goal?
  - b. Develop a timeline for your project that shows the steps you must take from beginning to completion.
  - c. Describe your project.
  - d. Develop a list of resources. Identify how these resources will help you achieve your goal.
  - e. If necessary, develop a budget for your project.
10. Do the following:
  - a. Choose a career you might want to enter after high school or college graduation.
  - b. Research the limitations of your anticipated career and discuss with your merit badge counselor what you have learned about qualifications such as education, skills, and experience.

## **Plumbing**

**Pre-work: none**

## **Programming**

**Pre-work:** Complete the following: Cyber Chip (<http://www.netsmartz.org/scouting>).

**Bring a Laptop or Tablet computer if possible, scouts may have to share computers or tablets.**

## **Search and Rescue**

**Pre-work: 4,10. Counselor strongly suggests buying and reading the Merit Badge book prior to the , pay particular attention to the incident command structure known as ICS.**

4. Find out who in your area has authority for search and rescue and what their responsibilities are.

10. Find out about three career or volunteer opportunities in search and rescue. Pick one and find out the education, training, and experience required for this professional or volunteer position.

## **Welding - \*\*\* Long Pants and Close Toed Shoes Required !!!**

**Review Pre-work especially 1<sup>st</sup> Aid in advance.**

**Pre-work: 1a-b,2a,b**

**Scouts need to wear a long sleeve shirt, close toed shoes, I will waive the Class A requirement while participating in this badge. You will not be allowed to take the class without proper attire !!!**

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.

## **Woodwork**

### **Pre-work: Earn your Tote-n-Chip card**