

# RED BORDERED MERIT REQUIREMENTS

## ART

1. Choose FOUR of the following art mediums: pen and ink, watercolor, pencil, colored pencil, chalk, finger paint, acrylic paint, or marker. Find out what supplies and equipment are needed for each. As you do each of the art projects for this merit, show that you know how to care for, clean and store these supplies and equipment.
2. Using a grid technique, draw the outline of an object. Fill in the object using pencil, colored pencil, chalk or marker. Repeat, using the same object, art medium and color, only this time color in the background around the object and not the object itself. How do these different “filling- in” techniques make your object look different?
3. After choosing a simple object, draw this object by using each of the following drawing techniques: flat line, stipple, cross hatch and scribble. Do these techniques create a different appearance to your object? Which one do you like best?
4. A technique using shapes can be used to portray natural objects. Looking at a photograph, identify basic geometrical shapes you can see. Make a pencil drawing of the same photograph by simplifying the objects in the picture to the shapes you have identified. Next, using a combination of drawing techniques learned in #3, go back over your basic lines to add details. Create and tell a story using your picture.
5. A collage is a good way to create with texture. Collect a variety of textures such as, sand, cloth, foil, wood, and magazine photos. Cut or tear the materials and arrange them into shapes by color and texture. Glue these shapes to a sheet of paper to create a face.
6. Pick an object such as a barn, tree, flower or house and using the four art mediums you chose in #1, paint or draw four pictures of this object using a different art medium each time. Answer the following questions:
  - a. Which art medium was easier to work with? Why?
  - b. How did the different art mediums cause your object to look different in the four pictures?
  - c. Which picture do you like best and why?
7. Using any combination of these techniques and art mediums sketch a patrol flag design.
8. Discuss ways you could serve God by using what you have learned. What types of jobs use artistic skills?
9. Pick out one art picture you have created and give it as a gift to someone. Which picture did you choose? Who are you giving it to?

## BIRD STUDY

1. Define ornithology. Define how birds are important ingredients of the ecological system.
2. Locate on a diagram of a bird some of the key areas to look at when identifying a bird. Learn these parts of a bird.

3. Learn how to use a bird field guide by doing the following for at least 3 bird species found in your area (the red-tailed hawk, hairy woodpecker and song sparrow are all found in most of the US):
  - a. Find the bird in the index.
  - b. Locate the bird on the page.
  - c. Find the dimensions of the bird's size.
  - d. Look at the map to make sure it is found in your area.
  - e. Read the information about the bird to determine what type of habitat you could expect to find it in.
4. Make a list of at least 15 bird species you can identify from pictures in a bird field guide, posters or birding web site and 3 birds you have identified in your yard, neighborhood or church area. These should be birds that are found in your area. The list should include the following information:
  - a. Specific common name of the bird.
  - b. Where you saw it (poster, yard, etc.).
  - c. The date you observed it.
  - d. What specific markings on the bird helped you identify it?
  - e. Is it a year-round resident in your area or does it migrate?
5. Make a list of at least 10 birds that prey on insects and rodents such as mice and rats.
6. Do ONE of the following:
  - a. Visit a bird exhibit in a natural history museum, zoo, or local park interpretive center and make a report of your visit.
  - b. Make a written or oral report about the great ornithologist, James Audubon or Roger Tory Peterson. Describe their major contributions to bird study.
7. Do ONE of the following:
  - a. Construct a birdhouse for a particular type of bird. Explain why it is suitable for this type of bird.
  - b. Construct a bird feeder.
  - c. Construct a bird bath.
8. Explain what may be done to protect bird life in your area.
9. List three Scripture references regarding birds.

## **CHURCH**

1. Complete the following:
  - a. How does the Old Testament define "church" in the following scripture references: Exodus 25:8-9, 1 Kings 5:5.
  - b. How does the New Testament define "church" in the following scripture references: 1 Corinthians 12:27-28, Ephesians 1:22-23, Colossians 1:18, Acts 11:25-26.
  - c. How do these two definitions differ?
2. According to the following scriptures, what are some of the things that we as part of the church, the Body of Christ, do? Pick ONE of the following verses to work on for the next two weeks. Each day make a list of those things you have done to put your scripture verse into action.

- a. John 13:34-35
  - b. Mark 16:15-16
  - c. Matthew 28:19-20
  - d. 1 Timothy 4:12
  - e. Galatians 5:13
  - f. Romans 14:13
  - g. Colossians 3:15
  - h. Hebrews 10:24
3. Explain in writing how your church body is organized and who fills each position. Do they volunteer or get paid? What are their main job responsibilities? Be certain to include such jobs as the pastor, youth pastor, children's pastor, deacons or board members, elders, department heads, secretary, maintenance help and bookkeeper. Read the following two scripture references and explain why these verses are important to remember when choosing and appointing church leadership, 1 Peter 5:1-3 and 1 Timothy 3:1-10.
  4. Write a one-page report or make a poster to show the history of your church building and body. Include the following: Who was given the vision for starting the church, who was the first pastor, where was the first church building located, when was the church started, and what landmark events are a special part of the church history?
  5. Explain what it means to be a member of the body of Christ from 1 Corinthians 12: 21-26. What are the requirements for church membership in your local church body? Why is membership in a local church body important?
  6. Explain how your church is financed. Give three scripture references on tithing. Keep track of your tithing to the church for one month.
  7. Read 1 Corinthians 15:58 and Colossians 3:23. Then select (with your commander's approval) two of the following, to serve the Lord in your church body.
    - a. Be an active member for at least one month in your church choir, band, Junior Bible Quiz, etc.
    - b. Help set up or serve as a waiter or busboy at a church banquet or fundraiser.
    - c. Serve as an usher for a 1-week series of special meetings or for one month for regular services.
    - d. Spend at least two hours helping with yard work or parking lot cleanup at your church.
    - e. Spend at least 2 hours promoting your church in visitation, or neighborhood outreach.
    - f. Spend at least 2 hours vacuuming or other cleaning jobs in the church building.
    - g. Spend at least 2 hours assisting the secretary in making church bulletins, mailings, or other promotional materials, etc.
    - h. Spend at least 2 hours being a pastor's assistant by helping with tasks assigned by the pastoral staff.

## COMPASS

1. What are the 2 main types of compasses:
2. List the four (4) main parts of a compass:
3. What are the eight (8) major directions and their bearings?

4. What are the meanings of the terms, magnetic north, true north, declination, and magnetic variation?
5. Demonstrate how to “orient” your compass.
6. Demonstrate how to find a bearing.
7. What is a good example of a “sighting point”?
8. What are three (3) methods for estimating distances? Which is the most accurate method?
9. Calculate your “Average Step” and “Average Stride” using the step method.
10. Demonstrate how to determine directions without a compass using the following:
  - a. The face of a standard watch.
  - b. The stars.
11. Demonstrate your understanding of a topographical (topo) map by answering the following:
  - a. What do the standard topo map colors represent?
  - b. Demonstrate your ability to read a topo map.
  - c. Demonstrate your ability to identify topo map symbols.
  - d. Draw and label 10 topographic map symbols from memory.
12. Describe what to do if you get lost.
13. List 3 scripture references regarding features on a map such as rivers, mountains, trees, highways, and cities.
14. Successfully complete the Silva “Beginner’s Compass Game.”

## COOKING

This merit is required to earn the Gold Medal of Achievement

1. Provide the following ‘food pyramid’ information:
  - a. Draw a food pyramid diagram.
  - b. What are the five (5) major food groups?
  - c. What items are at the top of the food pyramid?
  - d. Show on the diagram where the food groups fit inside the food pyramid?
  - e. Show on the diagram the recommended number of serving per day for each food group.
2. Plan the menus for 3 one-day campouts or outings for a six-boy patrol. This will be a total of nine meals. Each meal should be planned to include items from each of the food groups. Three of the required meals must be trail or backpack trip meals.
3. Make a list of cooking equipment and utensils needed to complete the meals in requirement 2.
4. Make a list showing the cost and amount of food needed to complete the meals in requirement 2.
5. Cook two (2) different individual items and, in addition, cook four (4) complete meals using at least three (3) different cooking methods, such as baking, boiling, frying, broiling, or tinfoil dinner. Campfire or charcoal cooking is preferred, however, a camp or backpack stove may be substituted if local restrictions do not allow open fires).

6. Set up a dish wash station using the “Wash-Rinse-Rinse” method demonstrated in the Adventures in Camping book. Properly wash all cooking utensils for at least 3 meals using this washing method.
7. On a separate sheet of paper write down the rules for safely handling foods, and explain the reasons why safe food handling is important.

## **FAMILY LIFE**

This merit or the God and Family Award is required to earn the Gold Medal of Achievement.

1. Write the answers to the following questions:
  - a. What is a family?
  - b. How are the family members affected if one of the members is sick?
  - c. How are the family members affected if one of the members leaves?
  - d. How are the family members affected if one of the members has received an award?
  - e. How are the family members affected if one of the members is angry?
  - f. How are the family members affected if one of the members fights with another family member?
2. Read Luke 2:41-52. Then write the answers to the following questions:
  - a. Write some reasons why Mary and Joseph were worried about Jesus.
  - b. When Jesus went back to Nazareth with Mary and Joseph what did he do?
  - c. Why was that important?
3. Why is it important to have rules in a family?
4. Read Luke 15:11-32. Then write the answers to the following questions:
  - a. Why is it so hard to forgive?
  - b. Why did the father forgive the son?
  - c. Why didn't the older brother forgive?
  - d. Why is forgiveness important in a family?
5. Make a list of home duties or chores (at least five) and do them for five weeks. Keep a record of how often you do each of them.
6. Do the following:
  - a. What are the steps to planning and having a family discussion?
  - b. Plan and carry out a family discussion on TWO of the following subjects:
    - i How to avoid the use of drugs and drug abuse.
    - ii Understanding the growing-up process.
    - iii Personal and family finances.
    - iv The wise selection of friends.
7. Plan and carry out a project that involves the participation of your family. Use the family discussion outline to decide what project the family will work on together. After carrying out the project, write a one-page report that includes the following information:
  - a. The objective or goal of the project.
  - b. How individual members of your family participated.
  - c. The results of the project.
8. List ten reasons why you are important to your family.

## **FINGERPRINTING**

1. Make a timeline showing the history of fingerprinting.
2. Explain in your workbook how people leave fingerprints and why fingerprints are considered so important in the identification of people. Name the surfaces of the body where friction or papillary ridges are found.
3. Describe the Bertillon System of identification. List one example of when the Bertillon System failed to show the difference between two people, while the fingerprint comparisons showed the difference.
4. Explain the Henry Classification System of identification. Be able to identify the arch, loop, and whorl pattern divisions. Also be able to identify the deltas and cores of fingerprints.
5. List the different ways law enforcement agencies use fingerprints.
6. Describe two ways fingerprints can be taken from a person. Where are these fingerprints stored? Take a clear set of your fingerprints and record them on an 8"x8" fingerprint identification card obtained from your local police department, downloaded from a web site or one you make. Identify which pattern fits each of your prints and find the deltas and cores for each.
7. What are Latent fingerprints? Explain on a separate sheet of paper how fingerprints are found at a crime scene and how they are removed, stored and used.
8. Make a list of career opportunities working with fingerprints. List examples of job titles, job responsibilities and special schooling necessary.
9. List some other types of "fingerprinting" or forms of identification forensic specialists use to determine who was at a crime scene, such as DNA testing, strands of hair, footprints, etc.

## **FIRE CRAFT**

1. List the fire safety rules for a campfire. Include the rules for selection and preparation of a good campfire site.
2. Assemble and explain the use of campsite fire-fighting equipment.
3. Obeying all fire safety rules, demonstrate your ability to start a campfire.
4. Demonstrate the proper method of putting out a campfire.
5. Demonstrate how to build six different types of campfires and explain their purposes.
6. Explain the safety rules for a propane stove.
7. Explain fire-fighting procedures in the following settings:
  - a. Home
  - b. Woods
  - c. Open fields
8. Assemble four forms of tinder. Assemble kindling and fuel. Use one of the forms of tinder to light a campfire for requirement #3.
9. As a patrol, plan and conduct an outpost council fire service. Construct the campfire and provide a unique fire-lighting method.

10. List 5 methods or chemicals for coloring flames.

## **FIRST AID SKILLS**

1. Explain the meaning of First Aid.
2. Explain how to contact local authorities in the event of an emergency.
3. Explain how to tell if it is safe to give first aid.
4. Explain when an injured person should and should not be moved.
5. Explain why cuts and scratches should be properly treated.
6. Explain and demonstrate First Aid for a minor cut.
7. Explain and demonstrate how to stop bleeding.
8. Explain and demonstrate first aid for arterial bleeding of an arm or leg.
9. Explain what the “Good Samaritan” laws are.
10. Explain how to treat a foot blister.
11. Explain and demonstrate first aid for insect bites.
12. Explain and demonstrate first aid for a puncture wound.
13. Explain how to remove a splinter from a finger.
14. Explain how to treat skin irritation caused by poison oak, poison ivy, or poison sumac.
15. Explain and demonstrate first aid for simple burns.
16. Assemble a personal first aid kit. Explain the purpose of each item you have selected.

## **INSECT STUDY**

1. Describe the typical features of insects. Explain how spiders and centipedes are different from insects. Give information about the populations of the various groups of insects on earth.
2. Describe the main parts of an insect.
3. Compare the life cycle of a grasshopper to that of a butterfly. Describe a spiritual lesson based on these life cycles.
4. Describe a social insect group and compare it to a solitary insect.
5. Collect and correctly mount and label 25 different insect species. (Some insects in your locales may be protected under the Endangered Species Act of 1973. Check which ones these may be and do not collect any of them.)
6. Name five diseases that are carried to humans by insects. Briefly describe how man has controlled these pests.
7. Name four species that are helpful to humans and describe how they are helpful.
8. Explain the importance of insects in the food chains of other insects, fish, birds and mammals.
9. List three scripture references that mention insects.

## **JUNIOR LIGHT FOR THE LOST**

1. View the *Carry the Torch* Video. (You may view the film at a public showing, or obtain the video from the national Light-for-the-Lost Department.)
2. Take the LFTL Study Course. This course can be obtained from the national LFTL Department.
3. Obtain a gospel tract autographed by a missionary. Write a letter asking the missionary to send you an autographed gospel tract, or have a visiting missionary autograph a tract. (Ask your commander for the address of a missionary or obtain a list of missionaries supported by your local church from the church office.)
4. Do ONE of the following:
  - a. Attend a Light-for-the-Lost banquet. Most districts conduct annual LFTL tours. These are often banquets held on a sectional basis.
  - b. View the Light For The Lost Banquet Service. (You may view the film at a public showing, or obtain the video from the national Light-for-the-Lost Department.)
5. Write a one-page report about the history and purpose of LFTL.
6. Cite three scriptures that refer to missions.

**AFTER** you have earned the Royal Ranger Jr. LFTL merit, you may apply to become a Light for the Lost Junior Councilmen by completing the Jr. Councilmen application that was received with the Royal Ranger Jr. LFTL merit ordered from GPH. Submit this application along with the \$15 Junior Councilmen dues to the national LFTL department. They in turn will ship a Junior Councilmen pin to be worn on the uniform. Junior Councilmen applications are **NOT** available at the LFTL banquets or barbecues.

## **LASHING**

1. Properly demonstrate Square Lashing
2. Properly demonstrate Diagonal Lashing
3. Properly demonstrate Sheer (or Round) Lashing
4. Properly demonstrate Continuous Lashing
5. Properly demonstrate ONE of the following projects. (Your leader must agree with the choice.) You may pair up with another Royal Ranger, performing equal amounts of work and both receive credit for completing the lashing project.
  - a. Table
  - b. Tool-rack
  - c. Chippewa Kitchen

## **MODELS AND DESIGNS**

1. Define the word “model” as it relates to cars, trains, planes or buildings.
2. Give an example describing the history of model making in ancient times.

3. Explain why professionals use models in their work.
4. Cite some examples of how models are used in non-business ways.
5. Choose ONE of the following:
  - a. Build a model from a kit appropriate for your skill level.
  - b. Build a model from scratch.
  - c. Build a pinewood derby car.(You cannot use the same model or pinewood car used to complete a requirement of the Hobby merit.)
6. As you build your model keep notes on and demonstrate the following:
  - a. Proper planning method
  - b. Appropriate choice of materials
  - c. Proper and safe use of tools
  - d. Appropriate choice and proper use of adhesives, paints and finishes
  - e. Proper clean-up and storage of all materials and tools
7. After completing requirement #5, do ONE of the following:
  - a. Create a method for displaying your model.
  - b. Run the pinewood derby car in a race.

## **ROCKETRY**

1. Write a 200-word essay on the history and design of rockets.
2. Build a skill level one and a skill level two rocket.
3. Explain what the numbering and lettering on the rocket engine means.
4. Write a one-page essay on the flight of a rocket beginning with the time it is on the launch pad.
5. Explain the procedure for rocketry countdown.
6. Make a rocket altitude finder; explain and show how it works.
7. Take the model rocketry safety code test and score at least 90 percent.
8. Identify the parts of a single stage rocket.
9. Launch a rocket for at least three flights.

## **ROPE CRAFT**

1. Properly identify the parts of a rope.
2. Properly coil a rope.
3. Properly whip the end of a rope.
4. Properly tie the following knots and give the use for each:
  - a. Figure Eight
  - b. Square
  - c. Sheet Bend
  - d. Clove Hitch
  - e. Two Half Hitches

- f. Taut Line Hitch
- g. Bowline
- h. Sheepshank

## **SAFETY**

This merit is required to earn the Gold Medal of Achievement.

1. Demonstrate how you would make yourself visible on a nighttime hike. List three precautions.
2. Learn and plan with your family what procedures you would follow in the event of a fire, tornado or accident in your home. Explain the preparations you and your family can take to prepare yourselves for such emergencies.
3. Explain and demonstrate the proper safety procedures for riding a bike on a public road. List three pieces of safety equipment you should have on your bike.
4. Explain what safety precautions should be taken in a swimming area. Learn the Eight Defense Plan for Swimming Safety.
5. Explain what safety precautions should be taken before venturing out in a small watercraft.
6. Make a safety inspection (under adult supervision) of the family car. Check such things as the lights, turn signals, wiper blades, tires, brakes, exhaust, and emergency lights. List any conditions that could be hazardous. Talk to your parents about how these conditions could be remedied.
7. List 10 pieces of safety equipment that should be carried in the family car.

## **SPACE EXPLORATION**

1. Write a 100-word report on the purpose of space exploration including:
  - a. Historical reasons,
  - b. Obtaining specific knowledge,
  - c. Benefits to mankind, technology, and new products.
2. List at least 10 main steps in humanity's movement into space.
3. Make a timeline listing the 5 manned space flights from Requirement #4 and the 5 unmanned space flights in requirement #5. Add an additional 5 space flights. The completed timeline should have at least 2 flights for each decade from 1960 to 2000.
4. Make a list of any 5 different manned space flights, one of which must be a space shuttle mission. Include the following for each:
  - a. Crewmembers' names,
  - b. Project name,
  - c. Date of launch,
  - d. Reason for and highlights of the mission,
  - e. Reason why you chose that particular manned space flight.
5. Make a list of any 5 different unmanned space flights. Include the following for each:

- a. Project name,
  - b. Date of launch,
  - c. Reason for and highlights of the mission,
  - d. Important discoveries made during the flight,
  - e. Reason why you chose that particular unmanned space flight.
6. List the name of the first U.S. astronaut to fly in space, the date of his flight, and the name of the project.
  7. Explain why the United States space shuttles were built.
  8. List seven uses of the space shuttle.
  9. Name the oldest man to fly in space, and list his age at the time of his flight.
  10. List the name of the first U.S. woman to fly in space.
  11. Write a 250-word report on any aspect of space exploration of most interest to you.
  12. Construct a data table of recent information about the planets. For each planet, make a list to include:
    - a. Distance from the sun,
    - b. Number of moons,
    - c. Length of day,
    - d. Length of year,
    - e. At least two other important facts.
  13. Make a scrapbook of magazine photographs, news clippings, or website information and pictures about space exploration. This scrapbook must contain at least 10 pages and/or 30 articles or photos.

## **TOOL CRAFT**

This merit is required to earn the Gold Medal of Achievement.

1. List 10 commonly used hand tools.
2. List 5 hand tools used on a campout.
3. List and explain the three laws of tool safety.
4. List and identify the parts of each of the following tools:
  - a. Axe (14)
  - b. Pocket knife (11)
  - c. Bow Saw (4)
5. Demonstrate the proper way to open and close a pocketknife.
6. Demonstrate how to properly pass a(n):
  - a. Axe
  - b. Knife
  - c. Bow Saw
7. Demonstrate how to properly carry a:
  - a. Hand axe
  - b. Knife
  - c. Bow saw
  - d. Long-handled axe and other long handled tools

8. Demonstrate how to properly sharpen a pocketknife. (Skills for sharpening an axe will be demonstrated in the Knife and Hawk course.)
9. Explain how tools should be stored and what tools are inappropriate for use for Royal Rangers.

## **WEATHER**

1. Define the following terms: Meteorology, Weather, Temperature, Air pressure, Humidity.
2. Describe the function of the National Weather Service.
3. Describe how clouds are formed and label the types of clouds with the information required.
4. Cumulus, Cirrus, and Stratus are three main types of clouds. Give the following information for each type:
  - a. Description:
  - b. Found where in the atmosphere?
  - c. What type of weather do they predict?
5. Draw and label the water cycle diagram.
6. Match the names of these types of weather conditions with their pictures: Dew, fog, frost, hail, rain, sleet, and snow.
7. Keep a daily record of the weather for two weeks.
8. Write down safety rules to remember if you find yourself in each of these kinds of storms:
  - a. Blizzard,
  - b. Flash flood,
  - c. Hurricane,
  - d. Lightning,
  - e. Thunderstorm,
  - f. Tornado
9. Explain briefly what causes rainbows, lightning, and thunder.
10. Demonstrate your ability to read a thermometer and a rain gauge. Make a barometer, hygrometer, rain gauge, or weather vane. Record your work.
11. Define a severe weather watch and a severe weather warning.
12. Write 3 scripture references regarding weather.