

## ***Fish Culture***



1. Tell the history of fish conservation in the Philippines. Tell how the profession of fisheries management developed. Define fish management. Give examples and dates of fish management legislations. Explain why past fish management has been concerned mainly with the game animals.
2. Describe five (5) different relationships between man and fish conservation.
3. Describe the four methods used in fish management to maintain or increase numbers. Give an example of each in the Philippines.
4. Name at least three (3) local plants used as fish food.
5. Name the agencies responsible for fish culture. Tell the difference between their authorities and responsibilities. Describe opportunities for a career in one of these. Tell how fishing laws are set in the Philippines.
6. Do one (1) of the following:
  - a) Visit a managed fishing waters or a fishpond. Interview the resident manager. Write at least 300 words on what is being done to improve the area for fish culture.
  - b) Visit fish hatchery. Interview the resident manager. Write a report of at least 300 words on the place of fish hatchery in conservation.
  - c) Go out for one day with a commercial fisherman. Describe his catch. Tell the methods used. Write about the importance of such fishing to the country's economy and health.

## ***Fishing***



1. Catch three (3) different kinds of fish by any legal, sportsmanlike method and identify them. (One of the fish must be taken on an artificial lure using any type of rod.) Clean the fish properly for cooking.
2. Identify the different parts of a fishing rod; and the main parts of a spinning reel; OR show how to take care of your fishing tackle so that it will remain in good condition for a longer period of time; OR tell where the chief kind of fish are likely to be found in your area, at different times of year, different times of day, in different kinds of weather.
3. Catch and identify three kinds of live bait.
4. Give the season for game fish in your area, explain how and why they are protected by law, and tell what fish conservation measures are being done to improve fishing resources.

## ***Food Processing***



1. Tell about the system for producing, processing, and distributing food in the country. Explain why foods are processed and what types are dried, canned, frozen, or salted.
2. Do the following:
  - a) Make a chart of a single food item of livestock origin. Show how it moves through the system from the basic source of supply through farm production, processing, distribution, possible storage, and from market or food store to your table. List what happens at each step.

Tell how the steps in the movement from point of origin to the table are related.

b) Make a chart of a single food item of crop or vegetable origin. Show how it moves through the system from a basic source of supply through farm production and harvest, processing, distribution, possible storage, and from market or food store to your table. List what happens at each step. Tell how the steps of movement from point of origin to the table are related.

c) Using native methods, demonstrate the preservation of fish, meat, fruits, and vegetables for later consumption. (Example: *Daing* or *tinapa* for fish and meat, jellies or sweets for fruits, and *buro* for a vegetable).

3. Visit a food processing or repacking plant and after talking with the owner, explain what you found out to your counselor.

## **Forestry**



1. Identify and name 10 kinds of timber trees or shrubs. Tell the importance and uses of each.
2. Collect and identify seeds of 10 different kinds of trees.
3. Name 3 minor forest products and give the sources and uses of each.
4. Name two important enemies of the forest. Suggest remedies to combat or prevent damage caused by each of these enemies.
5. Enumerate some effects of *kaingin* and what remedies should be done. Tell something about the law penalizing illegal *kaingin*.
6. Tell something about the work of the Bureau of Forest Development and what it is doing for the country.
7. Understand the meaning of forest conservation and how it may be achieved. Give the importance of conserving forests.

8. Write an essay of about 300 words on the importance of forests to wildlife, the people of the community, and to our country.

### ***Fruit Cultivation***



1. Do the following:

- a) Point out on a map of the Philippines the regions where Ten (10) different varieties of fruits can be found or grown.
- b) List the varieties of fruits that can be grown economically where he lives.

2. Pick a good place in his backyard for a fruit or nut orchard. Make a plan for planting fruits and nuts in this area.

3. Take full care of fruit or nut orchard through a crop season of one (1) year. Keep accurate records of costs, observations and yield. Describe three (3) of the insects pests most harmful to fruit or nut crops where he lives. Name two (2) diseases most harmful. Explain how he would control each without hurting wildlife or destroying useful insects.

## **Gardening**



1. Discuss with his counselor the value of planting vegetables. Tell what are the nutritional values we get from green leafy vegetables.
2. Grow at least five (5) different kinds of vegetables in a family garden or in a small lot. Show some of his produce to his Counselor.
3. Explain the process of vegetable gardening from preparation of soil to harvesting.
4. Tell what are some local insects or diseases that can destroy local gardens and the methods of controlling their growth.
5. Plan a vegetable gardening project to be given to his local community/*barangay* unit in his area. Give the procedures, where and how to get support. Carry out the project and submit to his Counselor a progress report of the development on the project.

## **Handicraft**



1. Select a handicraft project that you can do using any two of the following materials. Abaca, shells, coconuts, bamboo, rattan, etc.
2. Name at least 5 different species that can be utilized for handicrafts under the materials that you have selected.

3. Name at least three tools needed for making the handicraft under the materials you have selected.
4. Plan, make, and show to your counselor the two projects you have made using the materials selected.
5. Explain the skills and attitudes you gained in making the two projects.
6. Describe some livelihood opportunities in handicrafts.

## **Hiking**



1. Explain and show the main points of good hiking practice.
2. Submit to his Troop Leader/Outfit Advisor and Counselor a written plan for a 10-kilometer hike, including the following: map routes, activities on the way, clothing and equipment needed, and meals on the way.
3. Take five hikes on five separate days within a period of six months, one of which should be an overnight hike. These hikes should be done progressively and should cover a total of 50 kilometers. No one hike should exceed fifteen kilometers at any time.
4. After sufficient training, go on a hike of twenty continuous kilometers in one day.
5. Within a month of the final hike, submit a short report of each of his six hikes containing the dates, routes, purposes and objectives, weather conditions, and interesting things and places seen.

## ***Hobbies and Collections***



1. Start a collection of at least 100 pieces. Choose from any one of the following in which he is interested:

- a) Coin collection
- b) Stamp collection
- c) Shell collection
- d) Leaves and barks of different trees
- e) Postcards
- f) Books

2. Make a scrapbook or collection on any one of the subjects in item 1. Exhibit them during Patrol or Troop meetings.

3. Tell why his hobby is important.

4. Encourage his fellow Scouts and other youth to make their own collection of rare things.

5. Do the following:

- a) Visit an art gallery or a museum.
- b) Report the proper set-up, the new methods of laying out and keeping rare collections.
- c) Tell why a museum or an art gallery is important in one's country or community.

## ***Hog Raising***



1. Visit five or more farms and name and describe two (2) breeds of hogs found thereon or attend an agricultural exhibition and describe the pedigree of one of the hogs shown at such exhibition.
2. Explain the different uses of hog products for both commerce and food.
3. Write out a balanced ration for fattening hogs and give reason for its preparation.
4. Explain fully the symptoms of hog cholera and the preventive measures in common use.
5. Name the different kinds of food rations needed for hogs from weaning time to marketing age.

## ***Home Repairs***



1. Do 12 of the following:
  - a) Know the location of your main electric switch. Replace a fuse or reset the circuit breaker in the electric entrance switch box.
  - b) Repair a sagging or squeaking door or gate.
  - c) Repair a break in a cement walk or wall.
  - d) Recondition a garden tool.
  - e) Repair broken furniture.



- f) Refinish or repaint the scratched surface of a piece of furniture. Clean brush afterwards.
- g) Repair or replace broken window shells (at least five) or replace a window pane or jalousie.
- h) Repair a leaking roof.
- i) Repair a leaking faucet.
- j) Repair a leaky hose.
- k) Mend a broken bolo handle.
- l) Repair a pressure gas lamp or stove.
- m) Recane the broken seat of a chair or bed frame.
- n) Clean out a clogged sink trap.
- o) Mend a torn mat.
- p) Repair the flushing mechanism in the water closet.
- q) Repair an electric cord, plug, or electric socket.
- r) Paint a wall or ceiling. Clean brush afterwards.
- s) Repair a flat iron.
- t) Repair a gas stove.
- u) Mend broken china.
- v) Build a workbench.
- w) Repair or put in drapery or curtain rods. Hang draperies or curtains.
- x) Repair a fence.
- y) Replace a door knob.
- z) Solder.

2. Name and describe some common tools used for doing home repairs.

## ***Horsemanship***



1. Name fifteen (15) parts of a horse.
2. Name four (4) leading breeds of horses. Explain what each breed is noted for.
3. Show the care of saddle and bridle. Name the main parts of the saddle and bridle.
4. Show how to groom, pick out feet, and care for a horse after riding.
5. Describe the symptoms of colic. Describe four (4) other horse diseases.
6. Name three (3) main defects of feet and legs. Explain how to detect them.
7. Show how to safely approach and rescue a horse from a stall in case of fire.
8. Ride a horse for a distance of ten (10) kilometers.

## ***Insect Study***



1. Tell how insects are different from all other animals. Show the differences between insects, spiders, and centipedes.

2. Point out and name the main parts of an insect.
3. Collect and mount fifteen (15) different species. Label each one with common and scientific names where possible. Show his collection to his Troop or Patrol.
4. Tell something about the histories and habits of the fifteen (15) insects collected, where each is likely to be found, what it eats, the different stages of its life, how it sees, hears, smells, feels and with what plants, animals, birds, and other insects it is associated.
5. Tell how insects fit in the food chains of other insects, fish, birds, and mammals.
6. From his insect collection identify:
  - a) Five (5) species of insects **helpful** to man. Tell how they are helpful.
  - b) Five (5) species of insects **harmful** to man. Tell how they are harmful.
7. Tell things that make social insects different from solitary insects.
8. Compare the life histories of a butterfly and a grasshopper. Explain how they are different. Raise a butterfly or a moth from a caterpillar.

## ***Interpreting***



1. Carry on a simple but sustained conversation in a modern foreign language for a period of not less than five minutes.
2. Listen to and translate a statement or address delivered in a modern foreign language and lasting not less than two minutes by a person to whom the language is a native tongue.
3. Write a simple letter in a modern foreign language on a subject given by the counselor.

4. Read and translate from sight a passage of not less than 200 words from a book or newspaper, in any modern language not native to the Scout, OR do all of the foregoing requirements in two Philippine dialects other than his native dialect.

## ***Journalism***



1. Write stories covering satisfactorily the following assignments, demonstrating that he knows the principles of good news writing including the elements of a good lead paragraph:

- a) a news incident;
- b) a routine club or society meeting;
- c) a lecture, sermon, or political address.

2. Write:

- a) an editorial;
- b) a feature or human interest story;
- c) review of a play, a motion picture, a concert or a book.

3. Do the following:

- a) Explain how the articles in Requirements 1 and 2 differ.
- b) Secure the publication of at least one of these articles in a Scouting, school, or local paper.

4. Prepare a simple set of headline styles which will serve all needs of a small newspaper, indicating type size and approximate count for each.

5. Present photographic or cartoon copy or the suggestion for such copy, as an illustration for a news story, and write the caption of it.

6. Read and correct proof, using the conventional proof reader's marks on manuscript of at least two

typewritten pages furnished by the Counselor.

7. Show that he knows what is meant by the following terms: point, font, pica, face, case linotype, hand set, galley proof, half tone, electrotype, screen, stereotype, mat.

8. Do the following:

a) Explain the steps necessary to copyright a book, magazine or newspaper; tell what rights are granted by a copyright, for what period.

b) Explain what is meant by freedom of the press and why we have libel laws. Tell what plagiarism is.

9. Prepare a dummy for the printer of an 8-page newspaper or magazine, including the placing of different size advertisements to cover the equivalent of two pages.

10. Explain the process of preparing a modern newspaper for publication, demonstrating a satisfactory knowledge of the various departments and executives and their functions. Explain the importance of the deadline.

11. Have contributed as a reporter, or as editor or member of the editorial or business staff (either voluntary or paid) on a newspaper or a local council, troop, school, trade, farm or club publication for at least four issues.

12. Present a scrap book including unpublished copy as well as clippings of published material filed under date and place of publication.

## ***Leathercraft***



1. Describe, name or explain the following:

a) Sources of leather

b) Curing and tanning of leather

c) Kinds of dyeing, staining and polishing, and cleaning materials used in leatherwork.

2. Do the following:
  - a) Identify at least five (5) different types of leather.
  - b) Explain how to select and buy leather.
  - c) Tell what kind of leather is best for each type of leatherwork such as: tooled and stamped or embossed articles like moccasins, wallets, shoes, bags, novelties, etc.
3. Tell the proper use and care of leatherwork tools and equipment.
4. Design patterns for at least three (3) different articles: wallet, leather case, shoes, belt, etc.
5. Demonstrate at least three (3) types of lacing and at least three (3) methods of braiding.
6. Make at least three (3) pieces of hand-carved and laced articles: leather cases, purses, billfold, portfolios, handbags, belts, etc.

## ***Lifesaving***



*(These tests must be performed before a Counselor who is a Certified Water Safety Instructor of the Philippine National Red Cross or who holds an Aquatic School Certificate of the Boy Scouts of the Philippine for Life Saving.)*

1. Earn the SWIMMING merit badge.
2. Do the following:
  - a) Spend at least six hours in preparing and practicing lifesaving skills.
  - b) Surface dive into open water, 2 to 3 meters deep, recovering various objects three times and a 5-kilo weight once.

3. Show the following:

a) For two times, remove his street clothes in 30 seconds or less. (Street clothes means socks, shoes, trousers, *barong*/shirt/sweatshirt).

b) The correct approach to a drowning person who is in the following positions:

[1] Back to Scout – Back approach

[2] Face to Scout with head above water – Underwater approach.

4. With the help of a buddy and a subject, show (reel-in rescue) the following rope rescue both as line tender and as rescuer:

a) *As rescuer* – carrying the looped end of a rope 20 meters long, 1/2-centimeter in diameter across his shoulder and chest, make a running or leaping entry into the water, swim 20 meters to struggling subject, and tow him ashore with the rope.

b) *As line tender* – chain knot rescue line. Tie and place loop around rescuer's shoulder, pay out rope and pull rescuer and subject ashore.

5. Keeping in sight a struggling person, enter the water feet first and –

a) Swim 10 meters, make correct approach, and tow victim 10 meters to shore with cross-chest carry.

b) Swim 10 meters, make correct approach, and tow victim 10 meters to shore with hair carry.

c) Swim 10 meters, make correct approach, and tow victim 10 meters to shore with collar or wrist carry.

d) Swim 10 meters, make correct approach to a tired swimmer, using swimmer's carry and push him 10 meters to shore.

6. Do the following:

a) In water at least two meters deep, show how to block effectively and avoid the attempts of a struggling person to grasp him around the neck with right arm and with both arms. In each case, show how to tow him ashore.

b) In water at least two meters deep, show how to disengage himself from any of the following grasps:

[1] Wrist

[2] Front head hold

[3] Rear head hold

[4] Arms around the body, at the front, below the armpit

[5] Arms around the body from back.

c) Demonstrate resuscitation for two minutes using the mouth-to-mouth method with external

cardiac massage.

## **Livestock Raising**

*(Livestock here means cattle, carabaos, horses, goats, hogs or sheep.)*



1. Explain the importance of livestock raising in the country today. Explain why is meat important in daily life.
2. Suggest to his parents that he raise livestock in their backyard. Look and make a research on livestock raising.
3. Make a record of sanitation, food, water, shade, and pasture. Outline in writing the proper feeding form, the breeding time through weaning of a litter of animals.
4. Discuss fattening and growth of livestock.
5. Describe two (2) breeds of animals with which he is personally familiar. Name at least two (2) other breeds.
6. Visit a farm where livestock raising is a major project or visit a packing plant or stockyard. Describe the results of his visit.
7. Tell and show how meat is processed.



## ***Machine Shop Practice***



1. Visit a machine shop, trade school, or a factory using or manufacturing machinery. Observe the benchwork, power equipment, machine tools, and safety devices to protect workers and make a report of this visit.
2. Name the uses of the following: lathe, planer, shaper, power press, and drill press.
3. Name and tell the uses of at least ten (10) of the principal hand tools used by machinists.
4. Show the divisions of a foot, an inch, a meter and a centimeter.
5. Make a rough sketch of a ball peen hammer head.
6. Demonstrate how to read a vernier and a micrometer caliper.
7. Enumerate ten (10) safety rules to be followed while operating machines.
8. Demonstrate the operation of a machine in a machine shop, observing the proper safety rules.

## ***Marksmanship***



1. Do the following:

- a) Make not less than 30 points in the offhand position (standing) out of the possible 50 points, in five (5) shots, on each of four targets, at a distance of fifty feet from firing point to target.
- b) Make a score of not less than 40 points in the prone position out of the possible 50 points, in five shots, on each of six targets, at a distance of fifty feet from firing position to target.

All shooting must be witnessed and targets signed by a range officer whose appointment as a Merit Badge Counselor has been approved by the Local Council or the National Office.

2. Do the following:

- a) Pledge his word that he will live up to the Three Fundamental Rules in Safe Gun Handling.
- b) Explain his understanding of the meaning of the Seven Rules in Using or Storing a Gun.

3. Do the following:

- a) Demonstrate with a rifle: [1] the proper way to clean it after using; [2] what rifling is, and explain its function; [3] in what direction the rear sight should be moved to move the striking point of the bullet from right to left and from below the target upward to the target (sights need not be actually moved for this demonstration).
- b) Explain the proper method of removing rust and leading from the bore of a rifle.

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CONDITIONS

Rifle: Any .22 calibre rimfire

Sights: Any, not containing glass

Targets: Fifty-foot target, 2 to 10 count.

Range: Fifty feet from firing point to target

## ***Masonry***



1. Know what masonry is. Differentiate it from cement work.

2. Prepare plans for a useful masonry structure such as a wall or an outdoor fireplace. Lay it out on the ground. Dig as needed for a foundation of solid concrete mixed by himself.
3. Demonstrate the use of mason's tools correctly.
4. Point out examples of course ashlar and rubble construction.
5. Do three (3) of the following:
  - a) Lay a stepping stone or flagstone walk.
  - b) Plan and mold something ornamental in concrete.
  - c) Build a useful, dry masonry structure, such as an outdoor fireplace.
  - d) Plaster or stucco a wall or ceiling.
  - e) Visit a rock quarry or a factory where masonry materials are made. Report on his visit.
  - f) Visit a hollow block factory.
6. Find out what jobs there are in masonry. Choose one in which he is interested. Report on the qualifications he must have for the job. Tell what the working conditions are.

## ***Metal Work***



1. Show the divisions of a foot, a meter, and a centimeter.
2. Show how to make common joints and seams in a sheet metal, such as lap.
3. Use tin cans to make two useful things that needs cutting, bending, and edging.
4. Show how to use the following tools: soldering copper, iron file, ball peen hammer, tinner's snips,

pliers, hacksaw, blow torch, and hand drill.

5. Do the following:

- a) Draw working sketches of a cake pan and a funnel
- b) Make patterns based on the working sketches he made in (a).

6. Make any in the following articles by sawing, filing, riveting and/or drilling:

- wire hangers,
- frames of a lamp shade,
- hinges,
- candle stand,
- caliper,
- paper weight,
- bird cage,
- wire waste basket,
- dish rack,
- wire wall planter,
- soap dish,
- wire decors,
- garden trowel,
- spoon,
- tray,
- soup ladle, etc.

## ***Music***

1. Play a standard musical instrument satisfactorily as used in an orchestra, or, demonstrate the he is sufficiently proficient in the art of singing, following the melody, and carrying his part against another in singing a duet or a quartet, and sing a prepared solo showing that he understands the meaning of



various musical signs which are common to vocal music.

2. Read at sight simple music required for the fourth grade in musical education.

3. Write a satisfactory essay of not less than five hundred words on the history of Philippine music.

## **Nature Lore**



1. After personal investigation, select for study one typical wildlife community, approved by the Counselor (forest, field, marsh, pond, mountaintop, ocean, shore, etc.) near home or at favorite campsite. Take at least two hikes within that area and do the following:

- a) Submit a list of the most commonly found plants (trees, shrubs, flowers, grasses, etc.) and animals (mammals, birds, reptiles, amphibians, fish, insects, mollusks).
- b) Report on kinds of soils and most commonly found rocks.
- c) Describe springs, streams, lakes, and other waters found.

2. From readings or talks with your Counselor tell how temperature, wind, rainfall, altitude, geology, tide, wild or domestic animals, or man help make the selected area what it is. Tell what is meant by the term “plant succession.” Tell briefly what successions have occurred in the selected area in the last fifty years and what would probably happen in the next fifty years if the area is left undisturbed by man.

3. Do all of the requirements in two of the following fields:

### BIRDS

- a) Identify in the field 15 species of birds.
- b) Recognize 10 species of birds by calls or songs, or determine their presence by nests or other signs.
- c) Make and set out three birdhouses or two feeding stations and tell what birds used them; or photograph nests of four species of birds.

### MAMMALS

- a) Identify in the field six species of wild mammals.
- b) Recognize in the field the signs of six species of wild mammals.
- c) Make plaster casts of the tracks of three wild mammals; or photograph two species of wild mammals.

#### REPTILES AND AMPHIBIANS

- a) Recognize the poisonous snakes in your area and identify in the field six species of reptiles or amphibians (e.g., snakes, turtles, lizards, frogs, toads, salamanders).
- b) Recognize two species of toads or frogs by their voices; or identify three reptiles or amphibians by their eggs, dens, burrows, or other signs.
- c) Raise tadpoles from the eggs of some amphibians; or raise adults from tadpoles; or keep an adult reptile or amphibian under conditions that keep it healthy for 1 month.

#### INSECTS AND SPIDERS

- a) Catch and identify thirty (30) species.
- b) Collect and mount thirty (30) species.
- c) Raise an insect from the pupa or cocoon or raise adults from nymphs or keep larvae until they form pupae or cocoons; or keep a colony of ants or bees for three months.

#### FISH

- a) Catch and identify four (4) species of fish.
- b) Collect four kinds of natural animal food eaten by fish; or make a lure and catch fish with it.
- c) Develop a simple aquarium containing fish and plant life and keep it successfully balanced for 1 month.

#### MOLLUSKS

- a) Identify five species of mollusks and crustaceans (e.g., clams, mussels, snails, shrimps, crabs, crayfish).
- b) Mount at least six shells.
- c) Make an aquarium and keep in it two species of mollusks or crustaceans under such conditions that they stay healthy for 1 month.

#### PLANTS

- a) Identify in the field 15 species of wild plants (trees, shrubs, ferns, grasses, mosses, etc.).
- b) Collect and label correctly seeds of 6 plants; or collect, mount and label leaves of 12 plants.
- c) Build a terrarium of at least three species of plants and keep it successfully for 1 month.

#### SOILS AND ROCKS

- a) Collect and identify soils found in three soil profiles; or 10 rocks representative of the area.

b) Find at least six species of animals that live in soil.

c) Grow seeds for 1 month in two kinds of soil and describe the difference in rate of growth.

4. Select one species of plant, mammal, bird, fish, reptile, or amphibian and, from personal observation and reading, write a simple life history (how and where and when it originated; how it grows; what it eats; what eats it; migratory habits if any; its natural home, etc.).

## ***Painting***



1. Show how to mix pigments in order to produce paints in shades and tints in colors.

2. Demonstrate how to add positive colors to white lead or white zinc.

3. Understand the mixing of oils, turpentine, etc., to the proper consistency.

4. Paint a wall or surface evenly and without laps.

5. Know how and when to use putty on nail holes and uneven surfaces.

6. Present for inspection a panel covered with three (3) coats of paint and containing a border of molding, the body to be painted in one color and the molding in another.

## **Pathfinding**



1. Demonstrate a general knowledge of the area within a 3-kilometer radius of his residence or the local Scout office so as to be able to guide people at any time to points within the area.
2. Know the location and general population of five (5) neighboring *barangays*, towns or cities selected by his Counselor. Demonstrate directions for reaching them – by foot, bus, or any other means of transportation, the comparative distance and possibly the fare from his locality.
3. If in the country, demonstrate giving directions to a stranger in the place; how to reach the house of the *Barangay* Chairman, places where food supplies may be purchased, several places of local interest such as a waterfall, a cold or hot spring, a former battleground or any other place selected by his Counselor.
4. Demonstrate how to direct a person from his home to a gasoline or fire station, or a general auto repair or vulcanizing shop.
5. Give the telephone number, if any, and direction for reaching the nearest police station, municipal building, the nearest doctor's clinic and hospital, the steamship or railroad station office or the *jeepney* or bus terminal.
6. Know something of the history of his community and the locations of its principal places of interest and public buildings as well as the names of the town's chief dignitaries.
7. Submit a scaled map not necessarily drawn by himself upon which he has presently indicated as much as possible the above required information.



## ***Personal Health***



1. Submit evidence of having had a routine general medical examination within the year. State what has been done to correct any remediable condition found.
2. Do the following:
  - a) State whether examination by a dentist has been made within the year and show what has been done to correct any remediable condition found. If no examination has been made, explain how to care for teeth properly and show by general condition of his teeth that he practices such care.
  - b) Tell how to care for his own hands and feet.
  - c) Explain importance of: [1] Washing hands before and after leaving the toilet, as well as before and after eating; [2] A daily bath; and [3] Daily elimination.
3. Tell how to ventilate a sleeping room properly. Give the number of hours of sleep needed by a person his age. Tell why a person should sleep by himself and what distance should separate his bed from others.
4. Demonstrate proper breathing and explain how it affects health.
5. Explain how disease is spread by drinking water, common drinking cups, dirty dishes, dirty dish towels, soiled bath towels, unpasteurized milk, and personal contact.
6. Do the following:
  - a) Name the basic essential foods to daily diet of a person of his age. Explain why he should observe good eating habits.
  - b) Write out, at the time of examination, the kinds of foods eaten at each meal over the previous 3-day period.
7. Explain the danger of taking a laxative or a purgative when suffering from pains in the abdomen, neglecting a break in the surface of the skin; and opening or squeezing pimples.

8. Give three reasons why alcohol and tobacco are harmful to the body.
9. Discuss the value of clean moral habits to general health.
10. Pass triple test (sitting, standing, walking) for good posture.
11. Make up a daily drill of ten exercises for Scouts giving proper exercises for whole body.

## **Pet Care**



1. Present evidence that he has cared for a pet for four (4) months. Get the approval of his Troop Leader/Outfit Advisor before he starts.
2. Prepare and explain a plan for the management of a farm animal. Show what must be done to prevent illness, blemishes, and defects.
3. Tell the symptoms of and explain how to care for two of the following:
  - DOGS
  - a) Distemper
  - b) Rabies
  - HOGS
  - a) Cholera
  - b) Poisoning
  - CARABAOS
  - a) Exhaustion from heat
  - b) Anthrax

- c) Tick
- d) Foot and mouth diseases

### HORSES

- a) Lameness
- b) Exhaustion from heat

### COWS

- a) Milk fever
- b) Prussic acid poisoning

### SHEEP AND GOATS

- a) Foot and mouth diseases
- b) Anthrax

4. Show how to treat the following:

- a) A broken bone
- b) A sprain
- c) Serious bleeding
- d) An open sore

5. Do ONE (1) of the following:

- a) Help take care of a sick or hurt animal for at least four (4) days.
- b) Work with local groups to help animals.
- c) Work with local group in preventing an infectious disease to which farm animals are subject.

## ***Photography***



1. Show that he is familiar with the essential parts of a camera and explain the purpose of each of the

following:

- range finder,
- lens,
- shutter,
- diaphragm opening,
- bellows,
- focusing scales.

2. Understand the basic principles of composition, selection, background, and handling of light and shade.

3. Name the chemicals found in one standard developing solution and fixing solution, and explain their purpose.

4. Submit six (6) good quality pictures taken, developed, and printed by him showing his knowledge of the principles in Requirements No. 2. Not more than two (2) pictures may be submitted from any one of the following groups and the collection must include one (1) from each group:

*Group A:* Landscape or water picture

*Group B:* Group of persons or street scenes

*Group C:* Person, domestic animal or bird, wild animal or bird

*Group D:* Architectural subjects

## ***Physical Fitness***



1. Submit evidence of having had a general medical examination within the year. State what has been or will be done to correct bodily conditions needing remedial measures.

2. Do the following:

- a) Have himself examined by his dentist. Tell how to care for his teeth.

b) Tell about his daily health habits and the care of his skin, hands, fingernails, toenails, eyes, ears, and nose.

3. Explain how to ventilate a sleeping room properly. Give the number of hours of sleep needed by a person of his age. Explain why a person should sleep by himself and what distance should separate his bed from others. Explain and show proper breathing and how it affects health.

4. Explain the following:

a) How disease is spread by drinking water, common drinking cups, dirty dishes, dirty dish towels, soiled bath towels, unpasteurized milk, and personal contacts.

b) The essential foods for the daily diet of a person of his age and why he should observe good eating habits.

c) Diseases against which he may be immunized or protected.

d) How the use of alcohol, tobacco and drugs can be harmful to him.

e) The value of clean moral habits to general health.

5. Do the following:

a) Record his best scores in the following tests: push-ups, jump-reach, run-walks and sit-ups.

b) Set goals to reach during the next 30 days.

c) Do daily exercise and keep a record for 30 days or until his goals are met.

6. With his Troop Leader and Counselor, accomplish the following physical fitness tests. (Earn a minimum of not less than 200 points which must come from not more than five events):

PFT No. 1: SWIMMING

*(50 points maximum)*

a) 15 meters speed swim - 5 points for each second faster than 25 seconds.

b) Distance Swim - 50 points for swimming 500 meters, 25 points for swimming 250 meters.

PFT No. 2: ARM STRENGTH

*(50 points maximum)*

a) Pull-ups - 10 points for each pull-up

b) Push-ups - 2 points for each push-up -

c) Archery - 5 points for every bulls-eye

PFT No. 3: ABDOMINAL POWER

*(50 points maximum)*

a) Bent-knee sit-ups – 1 points for each sit-up

**PFT No. 4: SPEED RUNNING**

*(50 points maximum)*

a) 50 yard dash – 2 points for each 1/10 of a second faster than 11 seconds

b) 40-yard shuttle run – 2 points for each 1/10 of a second faster than 15 seconds

**PFT No. 5: ENDURANCE RUNNING OR WALKING**

*(50 points maximum)*

a) 500 meters run-walk – 1 point for each second faster than 4 minutes

b) One-kilometer walk – 10 points for each minute faster than 20 minutes

**PFT No. 6: JUMPING**

*(50 points maximum)*

a) Standing Long Jump – 5 points for each inch over 4 feet

b) Vertical Jump and Reach – 5 points for each inch over 7 inches

**PFT No. 7: BODY COORDINATION**

*(50 points maximum)*

a) Basketball Throw – 2 points for each foot over 30 feet

b) Softball Throw – 1 point for each foot over 70 feet.

c) Archery – 5 points for every bulls-eye

7. Explain in a discussion with his Counselor, how a Scout can serve others by being physically fit.

***Pigeon Raising***



1. Do the following:

a) House at least two flock units (two pairs) of pigeon having selected the particular breed or

variety of squab, racing or exhibition pigeon which he has decided to develop as a project for this Merit badge. Give reasons for such selection.

b) Care for such flock units for sufficient time to raise to maturity at least two pairs from each original pair of birds.

2. Submit a rough sketch drawn to approximate scale showing size, location and interior equipment of loft or coop and aviary; describe briefly equipment he has made.

3. Submit a brief formula for seeds and grit used and an outline of a week's schedule of feeding, indicating whether he has mixed the ration or used a commercial brand.

4. Submit a brief report covering the method and schedule of sanitation, his experience with mice, vermin, or any other difficulties he had overcome in handling this project.

5. Present an itemized account of all birds sold or disposed of while undertaking his project or a statement of flock increase in numbers and approximate current market value.

6. Present an itemized account of all expenditures for stock, quarters, equipment, and other incidental items.

## ***Pioneering***



1. Make a gadget for making rope, using local materials. With this gadget, make a 20-foot rope, 1/2 inch or more in diameter. Whip the ends. Hand coil a length of rope.

2. Explain the following:

a) Kinds of rope

b) Care of rope

c) Weakening effect of knots

3. Tie twelve knots and hitches and explain how to use them in pioneering.
4. Make short, long, end, and eye splices and explain the uses of each.
5. Lash spars together, properly using square, diagonal and shear lashings.
6. Following an approved design, construct any of the following:
  - bamboo bridge,
  - signal tower,
  - monkey bridge,
  - raft or shelter.
  - Use lashings as needed in the construction. Explain the principles involved in the construction. Request the members of his patrol to assist in the construction.
7. Do any three (3) of the following:
  - a) Make a 3-strand Turk's Head neckerchief slide.
  - b) Show how to make a camp kitchen.
  - c) Explain and demonstrate pioneering anchorages for different projects in various types of soil.
  - d) Demonstrate Patrol leadership in constructing a pioneering project designed by the Scout himself.
8. Make and submit two (2) scale models of pioneering projects.

## ***Plumbing***



1. Identify at least ten (10) parts of a common plumbing installation and explain the uses of at least three (3).
2. Identify at least six (6) tools used in plumbing.



3. Show how to cut, thread, and connect water pipes.
4. Repair a leaking water closet.
5. Repair a faulty or leaking faucet.
6. Tell the correct way of reading a water meter or tell how a simple water pump works.
7. Submit a sketch of, and explain the sewerage system in, a house or submit a sketch of and explain how a septic tank works.
8. Enumerate two (2) local health regulations related to plumbing.

## ***Pottery***



1. Describe the purpose, preparation, and manufacture of various articles of pottery. Be able to tell the different kinds of clay. Name the best kinds for making pottery.
2. Draw 2 pottery forms, one of which must be decorated.
3. Design and mould by hand 5 pottery forms, such as:
  - a) an ordinary cooking pot
  - b) a water jar
  - c) a water pitcher
  - d) a bowl
  - e) a flower vase
  - f) a frying pan

- g.) a plate
- h) a drinking mug
- i) a basin

4. Describe the methods of firing and glazing pottery.

5. Tell something about the wares of one of the following people or places: Ilocos, Pasig, Greece, Delhi, Damascus, Sevres, Luca Dela Robbia, Josiah Wedgewood.

### ***Poultry Raising***



1. Have a knowledge of foster-mothers and the construction of sanitary laying houses, brood coops and runs.
2. Understand, through experience, rearing, feeding, caponizing, killing, and dressing birds for the table.
3. Candle incubating eggs and eggs for the market; describe the differences in candling, how to distinguish the infertile from the fertile eggs, and the bad from the good eggs; and tell how eggs are graded.
4. Select good layers and cull the poor producers.
5. Raise a breed of not less than ten (10) selected pullets.

**OR**

1. Own a pen of chickens, not less than ten (10) hens and one (1) rooster.
2. Do all the work in its care and management.

3. Incubate eggs with the use of brood hens and raise not less than (10) selected pullets for replacement.
4. Castrate all excess cockerels.
5. Keep accurate cost accounts record.
6. Make a complete report at the end of the year as required by the Counselor.

## ***Printing***



1. Using the letterpress printing process:
  - a) Set a paragraph of type by hand from manuscript copy.
  - b) Read and mark proof correctly.
  - c) Set type for a display card or an advertising handbill.
  - d) Run 100 copies of the job in Requirement No. 3 on a 10 x 15 or a smaller job press. Demonstrate the correct method of inking, setting gauge pins, use of make-ready, feeding accuracy and washing up press.

**OR**

2. Using the silk-screen printing process:
  - a) Make a stencil screen and base.
  - b) Print at least 50 copies of a poster, greeting card, T-shirt design, etc.

**OR**

3. Using the offset printing process: