

PROFICIENCY BADGES

Angler

1. Know the water safety rules. Understand the dangers of wading and the precautions to be taken.
2. Go fishing in fresh or salt water on at least 3 occasions in 3 months. Keep a log book of these fishing trips showing numbers, species and sizes of fish caught; where caught; methods, tackle and bait used; weather and water condition.
3. Able to identify 10 local fishes. 6 salt water, 4 fresh water. Have knowledge of the habitat and feeding behavior of 1 of the fish identified; know suitable baits and hook sizes.
4. Know how to take care of the equipments that are used for fishing.

Artist

1. Keep a sketchbook for a period of 6 month.
2. Complete any 3 below:
 - A poster
 - Draw at least 4 sets of fashion clothing design by yourself
 - Draw a landscape set by the Examiner
 - Draw a person from life or object set before you
 - Using Chinese or English calligraphy to write out a poem
 - Draw out a story base picture illustrate by your Examiner

Astronomer

1. Demonstrates with diagrams, drawing or models, a general knowledge of the nature of the stars and planets, and their apparent and actual movements. Understand the causes of the seasons, eclipses and occultation.
2. Give a general account of the bodies in the Solar System: sun, moon planets, comets, meteoroids and minor planets.
3. Know the elementary astronomical terms: e.g. sidereal period, axial rotation, synodic period, opposition and conjunction.
4. Give a general account of the stellar system: the stars, double and binary stars, variables, spectra and some general ideas about stellar evolution and energy sources.
5. Recognize the main constellation, i.e. Ursa Major, Bootes, Virgo, Leo, Orion, Canis Major, Canis Minor, Gemini, Taurus, Cygnus, Aquila, Scorpio, Sagittarius, Pegasus, Andromeda, Aries, Pisces, Austrinus, Perseus, and Cassiopeia.
6. Know how to show direction through stars.
7. Discuss the outer galaxies, and explain why they are thought to be receding.
8. Understand the principles of telescope.
9. Keep an observer's diary for a period of not less than 2 months, with a planned program included, such as estimating the magnitude of a variable star (e.g. Delta Cephei) or plotting the radiant of a meteor shower.

Athlete

1. Choose any of the 4 below and take the test twice within a period of 3 months and show signs of improvement:
 - Running 100m, 200m, 400m, 800m, 1500m.
 - High jump, long jump.
 - Shot put, discus, javelin.
2. Doesn't matter what is the first time results, but within a period of 3 months, must be able to attain the desire results:

• Running	100m	14 seconds
	200m	31 seconds
	400m	71 seconds
	800m	2 minutes 45 seconds
	1500m	5 minutes 10 seconds
• High jump	1.23 m	
• Long jump	4.26 m	
• Discus (1 kg)	22 m	
• Short put (4 kg)	8.84 m	

Boatswain

1. Pass or have passed Coxswain's Mate Badge.
2. Have a general knowledge of ropes, including different uses, stress and strains, and demonstrate the correct method of stowing cables, coiling light lines and painters.
3. Have knowledge of sail canvas and Terylene, be able to name the parts of a sail and know how to maintain sails in good conditions.
4. Have good knowledge of both standing and running rigging in: 1 of the Group's open sailing craft; a gaff-rigged vessel; a class racing boat.
5. Have practical knowledge of at least 3 types of purchase tackles.
6. Demonstrate that you can heave a lifeline 18m with reasonable accuracy.
7. Be able to use a palm and needle to make a drogue with canvas.
8. Make a rope fender for a dinghy.
9. Make a grommet and strop a block for operational use in a sailing boat.
10. Complete a long splice or make a pair of lizards using bull's eye or thimbles.
11. Demonstrate afloat in a sailing boat under way the following: single catspaw, running bowline, double sheetbend and mouse a hook.
12. Pipe 'Away boat's crew'.
13. Take a consistent and practical part in 1 of the following activities:
 - Constructing a canoe;
 - Constructing a hard chine boat;
 - Carrying out hull repairs to a carvel, clinker or fiberglass boat;
 - Making a spinnaker or stormsail for 1 of the Group's boat.
14. Take a responsible part in 1 of the following activities:
 - Rig a derrick (or derricks) with ropes, spars and tackles, etc., and lift a small dinghy from water;
 - Rig a form of breeches buoy, using a lifebuoy ropes, tackles and spars, etc. and demonstrate its use;

- The launch of a boat from a sandy or shingle foreshore and breaching the craft and hauling up well clear of water. The rigging of a hull strop and the use of a carrick bend to feature in the hauling-up evolution.
15. Taking a leading part in 1 of the following exercises afloat: Either board a sailing boat; apparently dismasted, stream a drogue and ride it, construct and hoist a jury rig, recover the rogue and sail the boat home; the candidate taking the helm. The jury-rig to include 1 makeshift mast, 2 jury sails, a rolling hitch, single catspaw, sheetbend and appropriate lashings. The distance in the operation out and in to be approximately 4 cables each leg.

Note: 1 orthodox sail may be utilized but not in its normal or proper setting. In craft carrying 2 masts, 1 orthodox mast may be retained to set 1 jury sail. The second jury sails to be fashioned from available materials, e.g. oilskins, canvas covers, sacking, tarpaulins, etc.

OR answer a signal for assistance from a sailing boat with a 'damaged rudder' and 'aground in shallow water' at approximately 4 cables distant. Refloat the craft by warping off, rig for sailing, recover ground tackle and sail the boat home. The candidate to board the 'stranded' craft, supervise lying out of kedge anchor and warping off, recovery of anchor and re-rigging of sailing gear. The candidate to sail the craft home using a steering oar in place of a 'damage' rudder.

The candidate should muster the crew with the appropriate pipe. The candidate should supervise preparation of the pulling of powerboat with the appropriate gear to include warp, spare anchor and a drogue.

Camp Cook

1. Draw up a days menu of breakfast, lunch, dinner including:
 - Ingredients needed
 - Pricing
 - Cooking style

Note: Lunch and Dinner must have 3 dishes and 1 soup. Breakfast must have at least 1 hot food.

2. Get a helper to assist you in performing 1 of the meals above.

Camper

1. Have camp under canvas with Scout Unit or Patrol for a total of not less than fifteen days.
2. Pitch and strike a tent.
3. Able to direct successfully the pitching, the striking and the packing of a Patrol tent.
4. Know what to look for when choosing a campsite.
5. Show understanding of the principles of camp hygiene, and the importance of order and cleanliness in camp generally.
6. Demonstrate how to store food in a Quartermaster's tent.
7. Construct alone a camp larder, a camp oven and 2 other gadgets of your own choice.
8. At a camp, cook for yourself a hot breakfast or a dish for a main meal, which must include 2 vegetables.
9. Have knowledge of camping standards.

Canoeist

1. Pass the 50m swimming test.
2. Have a certificate from any canoeing club

OR

Complete the following:

3. Name the parts of a canoe and its equipment.
4. Know the safety rules applicable to water activities, with particular to canoeing to the conditions prevailing in local waters.
5. Know how to wear a life jacket.
6. Capsize drill in deep water.
7. Demonstrate correct padding, to include back padding, steering and turning, use of the draw stroke and sweep.
8. Make the correct approach and bring the canoe alongside and disembark.
9. Do a rescue in deep water.

Civics

1. Be able to give simple definition of Democracy, Nationalism, Loyalty, Modernization, Multi-racialism and Social Discipline.
2. Have studied the system of Government in the Republic and described the method of election and qualification of voting either verbally or in written form.
3. Show a general knowledge of the history of the Republic from 1965 to the present.
4. Show proof that you have always contribute help to the needy, especially to the crippled and aged.

Collector

1. Make a collection of 1 type of object, neatly and systematically arranged for a period of at least 6 months.
2. Discuss with the Examiner the reasons for your choice. Know something about the subject of your choice and show interest in it.

Communicator

The completion of 1 section will qualify

A)

1. Send and receive a message of not less than 150 letters at rate 9 (145 letters per minute) in semaphore, and at rate 5 (25 letters per minute) on buzzer or lamp in Morse.
2. OR send and receive a message of not less than 150 letters at rate 8 (40 letters per minute) on buzzer and at rate 6 (30 letters per minute) on lamp in Morse.
3. Demonstrate that you know a proper procedure when sending and receiving a message.
4. Improvise at least 2 method of sending a message in Morse or in semaphore at least 150 m at rate 4 (20 letters per minute).

Note: 80% accuracy required in all tests. Outdoor sending and receiving stations to be a minimum of 150 m. buzzer stations to be in separate rooms.

B)

1. Within a period of 3 months, log 50 different radio amateurs showing details of date, time, call sign, signal strength, readability and location. Discuss with the Examiner your experiences in keeping your log, e.g. use of equipment, longest distance cover.
2. Discuss with the Examiner the use of various amateurs' frequency bands. Know which frequencies you should to use to cover various distances during the night and the day.
3. Define at least 12 international 'Q' signals.
4. Know the Post Office regulations restricting the use of "walkie-talkie" radio equipment.

Note: A Scout who has qualified for the Amateur Radio license qualifies automatically for this badge.

Computer

1. Basic understanding of how does a computer works.
2. Have knowledge of how to use a computer system.
3. Understand a computer language and to write at least 6 computer program.
4. Know how to handle different types of information and to list out the different uses of computer daily.

Cook

1. Prepare and cook for yourself 2 of the following: any cakes, pudding (rice or bread) and omelette.
2. Cook and serve with rice for 2 to 4 persons 2 dishes from the list: a meat curry; sweet sour fish; a stew; roast chicken.
3. Cook and serve 2 to 4 persons: a vegetable cooked so as to conserve their food value; a purely wheat meal.

Craftsman

Complete any 1 of the sections:

A) Basket Making

1. Produce an article of practical use in basket, cane, rush or straw work.
2. Show a general knowledge of the raw material used, where it is obtained and it is prepared for working.

B) Bookbinding

1. Prepare the parts or sections for sewing and sew sections on tapes.
2. Fold and paste on end-papers, glue up and line with mull, round the back and add second lining.
3. Cut boards and cover with cloth or paper and put book into cover.

C) Joining

1. Drive a screw up to 38.1mm without damage to wood or screw.
2. Nail to a packing case lid correctly, using 12.7mm wood and 38.1mm nails.
3. Divide lengthwise with an ordinary saw, a 25.4mm board 601mm, the cut not to deviate from the line more than 2mm.
4. Sharpen a chisel and plane iron, make a housing tenon and mortise, and halved joint.
5. Either dovetail 2 pieces of wood together with not less than 5 dovetails, or make a properly frame stool chair or other pieces of furniture.
6. Distinguish woods in local use and know the nature and common use of each.

D) Leather Work

1. Either
Sole and heel a pair of boots or shoes, sewn or nailed.
OR produce an article made by yourself, such as a handbag, wallet or purse on which a design must be modeled and stained. Know how to mix and use the various stains.
2. Show knowledge of the tools required.
3. Know the different kinds of leather used and how to select them.

E) Metal Work

1. Execute some work in beaten brass, copper or steel iron.
2. Exhibit tools used and demonstrate use of each.
3. Explain the composition and properties of solders and fluxes.
4. Make and solder a tin to measure with lid to fit.

F) Printing

1. Set up a handbill or page of type and produce machined prints.
2. Understand the point system of types and know the names of 6 common types faces.
3. Understand the printer's correction signs and know the names of different paper sizes and their measurements.

Cyclist

3. Own or have used satisfactorily for at least 6 months, a cycle, properly equipped and in good working condition.
4. Be able to make simple adjustments and repairs at the discretion of the Examiner, e.g. change tyre and tube, mend a puncture, replace a brake shoe and block, adjust the height of a saddle and handle bar to enable a younger boy to ride a bicycle.
5. Demonstrate that you know and observe the Highway Code, traffic signals, road signs, and that you can read a map.
6. Take part in a Scout activity that includes the use of cycles.

Electronics

1. Understand the simple theory of transistors and how they may be used in conjunction with resistors, capacitors and coils, to make simple circuits.
2. Demonstrate at least 4 electronics circuits that you have assembled, 1 of which must be a simple radio. Explain in simple term how they operate.
3. List at least 4 domestic and 4 industrial uses of electronics, and explain the principles on which 1 of them works.

Explorer

1. Arrange and carry out an expedition for yourself and 2 members, preferably from your Patrol, of not less than 2 days and 1 night duration in a country not previously visited.
Note: The expedition can be carried out on foot, by cycle, by canoe or by boat. All equipments and food are to be carried by those taking part.
2. Plan a project to carry it out alone or with a companion. Submit this project for approval. The type of project should be a simple expedition, such as identifying and mapping all footpaths or waterways within a 2km radius of a given point.
3. Complete a journey with a companion, of 6km by compass bearing only. 6 different bearing degrees are to be used; a map may be used too.

Forester

1. Able to identify 12 different local trees.
2. Have knowledge of the tending of woods and plantation, the sequence of operations and the reasons for these operations. Know some of the dangers to which woods may be exposed, e.g. fire, animals.
3. Know what are the benefits that trees can provide to the living things around, e.g. humans, animals.
4. Prepare soil and transplant a young tree.
5. Know how to select and use an axe, how to take care of it and the safety rules of axemanship.

Librarian

1. Described to the Examiner how a book is made. Show that you know how to use a library catalogue. Explain how fiction and non-fiction books are arranged on the shelves and why are they treated differently.
2. Supply the Examiner with a list of at least 10 books you have read within a period of 12 months. Explain why you read them and what you thought of them.
3. Be a librarian for the school or the Scout for at least 6 months.

Map Maker

1. Make a road map with compass and field book of 3km of road, showing all main features and objects, within a suitable distance on both side, to a scale of 1:20,000. The field book must be produced for inspection.
2. Enlarge a portion of a 1:50,000 map as the Examiner may determine to a scale of 1:2,500.
3. Draw a simple cross-section from a 1:50,000 maps. Line chosen to include varied features, gradients, etc.)

Master-at-Arms

1. Demonstrate the proficiency in 1 of the following: singlestick, quarterstaff, fencing, boxing, wrestling, archery or any art of defense.
2. Have attended regular training sessions in the selected activity for a period of not less than 3 months.
3. Demonstrate the correct method of attack and defense for the selected activity.

Mechanic

Chose any 1 of the following:

A

1. Know the principles of operation of an internal combustion engine and understand the function of a clutch, gearbox and rear axle differential of a motorcar.
2. Remove, clean and check the gap of a sparking plug and show that it is sparking.
3. Clean and set the distributor points. Understand the firing sequence and reconnect all plug leads correctly.
4. Identify the electric circuits of a motorcar protected by each fuse and clean and top up a car battery.
5. Check and top up the level of oil in the motorcar engine.
6. Remove and replace a road wheel. Know the precautions to observe.

B

1. Construct a radio receiver using at least 2 valves or transistors. A temporary layout on the board will be sufficient and headphone may be use, but not a construction kit. Draw the circuit diagram of the set for the Examiner and explain the function of each main component. (A kit may be used if the candidate holds the Electronics Badge)

2. Demonstrates the ability to use a soldering iron correctly, and know the particular precautions necessary when using a soldering iron with transistors and printed circuits.
3. Understand the extreme care that is necessary when working with mains operated radio sets, especially the AC/DC type (e.g. when installing an extension loud speaker or making internal adjustments).
4. Be able to cure a simple fault in a domestic radio set (e.g. faulty switch or lead, noisy controls, high resistance battery).
5. Describe the main conditions for the granting of licenses for broadcast reception (ordinary domestic), radio control of models and amateur transmitting.

Meteorologist

1. Make a simple rain gauge.
2. Make a wind vane and estimate wind speed.
3. Make a thermometer shelter and set up the thermometers for measuring air temperature and humidity.
4. Make and keep a weather log for a period of 1 month.
5. Demonstrate your ability in weather forecasting using the following methods:
 - Forecasting temperature, precipitation and general weather from wind strength and direction.
 - Forecasting by using an aneroid barometer.
 - Forecasting by noting cloud movement and cloud type.
 - Short-range forecasting by using weather lore.
 - Extended range forecasting by using weather lore.

Musician

The completion of 1 section will qualify:

A

1. Sing a solo with chorus or take part as treble, or alto, in a part song.
2. Read at sight 3 tunes.
3. Know what is meant by Sonata, Concerto and Oratorio, and give 3 examples of each.
4. Discuss with the Examiner recent performances you have heard at concert or on radio or television.

B

1. Play 2 solos, 1 of your own choice and the other at sight on any recognized musical instrument other than a percussion instrument.
2. Either produce a concerted item with others, in which you must play the instrument used in (1) above, or play another solo of different type and speed than those play in (1) above.

Note: A certificate that you are a member of the orchestra may be accepted.

3. Know what is meant by Sonata, Concerto and Oratorio, and give 3 examples of each.
4. Discuss with the Examiner recent performances you have heard at concert or on radio or television.

C

1. Either sings unaccompanied 2 different types of Folk Song.
Note: You can add your own rhythm, such as hand clapping or tambourine.
OR sing with your own accompaniment (banjo, guitar, mandolin Etc.) 2 different types of folk song.
OR play 2 different type of folk song as music on a banjo, guitar, mandolin, concertina, harmonica or other folk song instrument.
2. Know some basic principles and fundamentals of music, such as tuning your own instrument, keys, chords and bass notes.
3. Discuss with the Examiner some of the types of folk music and performers or artists that you enjoy. You must prepare to give reason for your choice.

Naturalist

1. Explain the results of the study of 1 of the following. Using field notes, simple sketches, photographs and sketch maps to illustrate.
 - A piece of sea shore
 - A piece of sand dune
 - Rocks
 - A land of road side verge
 - River or canal
 - A small pond
 - A forest
 - A garden of flowers
2. Discuss with the Examiner how the natural site studied could be affected by man's activities or management: e.g. waste oil discharged by oil tankers at sea; cutting hedges and road side verges by machine instead of manually.
3. Make a detail study of any plant or animal (i.e. ferns, grasses, wild flowers, trees and shrubs; butterflies, moths, or other insects, amphibians, wild animals, birds, fish, etc.) Discuss with the Examiner the results of the observations and sources of information used, i.e. museums, books, etc.

Navigator

1. Using examples set by the Examiner, show that you understand the purpose of the following features of a 1:20,000 Ordnance Survey map: Scale, Grid Reference, True, Grid and Magnetic North and Contour Lines.
2. Have a basic knowledge of the traffic signs and signals illustrated in the "Highway Code".
3. Prepare an Automobile Association type strip-route for use by a motorist or motorcyclist for a journey of 80km set by the Examiner.
4. Accompany a motorist as a passenger and act as a navigator for a journey of 100km.
Note: Roads other than Expressway should be use for at least half the journey and Motorway should not be use for more than a total of 30km. At the discretion of the Examiner, this journey may be make by motorcycle or other alternative forms of transport.
5. Take part in a properly organized orienteering event, competitive or otherwise.

Observer

1. In Kim's Game, remember 24 out of 30 well-assorted articles after 1 minute's observation. Test to perform twice running with different articles and each article to be adequately described.
2. By hearing alone, recognize 8 out of 10 simple sounds.
3. Give an accurate report of an incident lasting not less than 1 minute and involving 3 persons. This report, oral or written, must include a full description of 1 of the persons involved, selected by the Examiner.
4. Make at least 6 plaster casts of the tracks of birds, animals, car or cycle. All casts to be taken unaided and correctly labeled with dates and place of making. At least 2 of the casts to be wild birds or animals.
5. Follow a trial of 1.5km length containing approximately 40 signs made of natural materials. The route to be unfamiliar grounds. Roads may be crossed but not followed.

Photographer

1. Produce 12 photographs taken by yourself. These must include a minimum of 6 black and white prints processed and printed by yourself. The 12 photographs must cover at least 4 different types of subjects (e.g. landscape, animals, portraits, action shots)
2. Discuss with the Examiner:
 - The main feature of a camera (i.e. shutter speed, apertures, lens focusing) and how they are used to ensure technically good results.
 - The various type of camera that currently available.
 - The uses of accessories such as tripods, exposure meters, filters and close up lenses.
 - Describe the processes involved in developing and contact printing a black and white film. Mentions briefly the process in producing enlarge prints.
 - Diagnose the faults in exposure and processing in examples supplied by the Examiner.
 - Demonstrate knowledge of photographs by artificial light (flash or floodlight) by arranging equipment provided by yourself or the Examiner for a portrait, still life or similar subject.

Pioneer

1. Understand the main characteristics of various types and sizes of man-made and natural fiber ropes useful for pioneering. Show how to coil and care for them and how to assess strength and condition.
2. Be able to ensure safety. Understand the possible of negligent leadership, discipline, the misuse and overloading of gear and from incorrect rope work, including knots and lashing. Understand the special danger from the recoil and fracture of man-made fiber rope.
3. Understand and demonstrate in use, pioneering anchor suited to a variety of project, location and soil; including loose and marshy ground.
4. Efficiently lead a Patrol to construct a successfully 1 further project chosen by him from the Examiner's batch taking all prudent safety measures.
5. Efficiently lead a Patrol to construct a successful pioneering project of his own unaided design. The design, shown by drawings, a scale model and the

scheme of work, to include details of all necessary gear and the estimate of the time involved, are to be discussed with an agreed by the Examiner before hand.

Notes: The Scout has a free choice as to the type of project or problem but the Examiner will suggest the possibilities on request. Though it may have many aspect similar to previous or published projects, the Scout must demonstrate sufficient originality to proved competent pursuit of the activities as opposed to mere repetition of another's work.

The project constructed in part (4) and (5) must be of different type, i.e. rafts, towers, masts, bridges, cranes, etc. it must be on a sufficient scale to make the skilled application of pioneering techniques essential. As a normal rule, bridge span should exceed 8m, high project should exceed 7m and cranes should lift at least 254kg load through a height of 2m.

Power Coxswain

1. Hold the Coxswain's Mate Badge.
2. Have a more detailed of the Rule of the Road for power and sailing vessels and show by demonstration using diagrams or models, that you have a practical knowledge of local water including:
 - Tides (or current), local hazards, sandbars, shallows, rocks, underwater obstruction and any dangerous features such as weirs;
 - Lights, day marks and buoyage in relation to local water traffic, including fishing craft and fishing grounds;
 - Alternation of course and turning signals.
5. Know the safety precautions necessary in power craft, including the proper use of fire-fighting appliances and 'man-overboard' drill.
6. Have knowledge of the elementary principles of the motor boat engine and by demonstration afloat show:
 - That you can start the engine, operate the gear and understand the effect of transverse thrust with a single screw;
 - That you can turn circles using reverse gear, control the boat in confined waters and stop the engine when going show ahead;
 - That you can operate the correct towing procedure, including disposition of crew, and that you are familiar with the use of kedge anchor in an emergency;
 - That you can recognize the minor faults in an engine in relation to compression, ignition, battery and charging system, fuel supply and filters, intake and exhaust outlet.
5. Take charge of a small crew and prepare the boat for service, to include the provision of all equipment. Supervise checking the fuel, engine and pump, and then with minimum assistance, cast off the tide (or current) ahead, using the spring method. With the assistance of a second craft with anchor, demonstrate the use of kedge anchor. Recover the ground tackle, get under and return alongside against the tide (or current) without using reverse gear. Moor with spring and headrope; in respond to a 'distress' signal, take charge of the crew, cast off with the tide (or current) astern, using the spring and headrope method and proceed to a 'stranded craft' (aground in confined waters). Approach across the tide (or current) and take aboard a 'survivor', maneuver clear, using reverse gear, giving appropriate orders to crew and make fast. Supervise preparation necessary to disembark the 'casualty'.

Note: The above conditions are design for the use of inboard power craft and this type of craft should be use if practicable.
For the use of outboard motor craft, the test should be modifying accordingly.

Race Helmsman

1. Hold the Coxswain's Mate badge.
2. Have a good working knowledge of the racing rules and conditions applicable to pulling, sculling and sailing races in organized Scout Regattas, and have a knowledge of the handicapping system recommended for Scout sailing craft of the open boat type.
3. Take charge of a pulling crew in a race between a minimum of 3 boats. Each boat to be pulled by double-sculls or 4 oarsmen rowing single or double-banked. The start to be on a line with a 1-minute preparatory signal. The course to be a distance approximately 450m and to include 1 turn.

Note: The candidate will be judged on approach to the starting line and his coxing of the crew rather than the actual results of the race.

4. Show by demonstration afloat that you are a proficient helmsman. The demonstration to include:
 - Sailing the boat in any direction on all points of sailing: tack, wear, coach, run and reef. The boat to be manned by the helmsman and a crew.
 - 2 race starts by a 5 minutes gun with:
 - Wind aft on the first leg.
 - Wind due ahead on the first leg.
 - 3 turn at a Mark:
 - When close-hauled, leaving Mark to windward;
 - When close-hauled, leaving Mark to leeward;
 - When wind due aft.
 - Hoisting of a spinnaker when running for 3 turns at a Mark when wind due aft.
5. Demonstrate afloat:
 - "Man overboard" drill when "on the wind" and when "off the wind" and capsize drill.
Note: If the stress and strain on the gear is likely to be severe if the exercise is repeated, the candidate should observe a controlled capsize.
 - Have some knowledge of modern standing and running rigging, sails and equipment and able to recognize at least 3 different classes of racing craft.
 - Be able to discuss elementary tactics in relations to racing under sail with particular reference to:
 - 'Sea room';
 - 'Establish an overlap';
 - 'Giving way';
 - 'Calling for water';
 - The use of drop-keel generally;
 - Spinnakers and balloon jibs;

- And show that you understand the general organization associated with events, including preparatory signals, recall signals and special signals.
6. Give reasonable performances as helmsman in a series of 3 races against boys of your age.

Skin Diver

1. All tests in this group to be taken without equipment.
- Swim 200m free style (except backstroke) without a stop.
 - Swim 100m backstrokes without a stop.
 - Swim 50m wearing 3kg of weight belt.
 - Float on back for 5mins. (Head and leg movements permitted)
 - Tread water with hands above head for 1min.
 - Recover 6 objects from deep end of training pool (1 dive per object).

Before examination in the requirements for Snorkel Diving or training for them, you must satisfy your Instructor that you know of the dangers of anoxia, and of ear drum rupture and are able to 'clear ears' by pressure equalization through the Eustachian tubes.

2. Snorkel Diving (First Group)
- Sink basic equipment in deep end of swimming pool.
 - Dive for each item in turn of fit at surface.
 - Fin 200m surfaces diving every 25m (i.e. 8 times).
 - Tow an adult 50m by Sub Aqua Club method.
 - Land body and carry out artificial respiration.
 - Perform 3 rolls forward, 3 rolls backward. (Breath may be taken in between rolls).
 - Fin 15m under water.
 - Hold breath for 30sec under water.
3. Snorkel Diving (Second Group)
- Fin 50m wearing 5kg weight belt. Release weight belt in deep water, remove mask.
 - Fin 50m face submerged, using snorkel tube and mask.
 - Finished up at deep end, replace mask, surface dive, recover and refit weight belt.
 - Fin further 50m wearing 5kg w8 belt.

Note: the 3 parts of tests must be taken in sequence, and the tests in each group taken at 1 time in the sequence specified. Diving suits may be worn if buoyancy correction is made before commencing the tests. Tests in part 2 and 3 call for the use of basic equipment, i.e. fins, masks and snorkel tube should be the single bend open-end type.

Smallholder

Complete any 1 of the below:

- A. Have good knowledge of the farming practices in the rural area in the Republic.
1. Know the farm organization and the daily operation on the farm either on which you live or 1 of your choice, with special reference to the livestock, crops, cultivations, machinery and labor force on the farm.
 2. Discuss with the Examiner and give an account of the changes in the farm practices that have taken place recently, with particular reference to the starting or giving up of crops or type of stocks; and the reason for these changes.
 3. Produce a set of photographs, of at least 5 different jobs that cover a whole year, taken by yourself at the farm of your choice, and give a brief description of what they represent (simple snapshots are sufficient).

B. Be a gardener

1. Cultivate out of doors an area of at least 20 square yards for a year, during which grow 3 kinds of hardy annual flower, 3 kinds of vegetables and 2 kinds of bulbs, herbaceous plants and flowering shrubs or roses shall be grown successfully. As an alternative, 8 types of vegetable may be grown instead.
2. Discuss with the Examiner the work you have done in your garden and the results achieved.

Note: Examiner should visit the garden at least 4 times during the year.

C. Keep any livestock for a year.

1. If the animal is a small animal (dog, cat, rabbit, mouse, etc.), know its breeding habits and how the animal should be fed, housed, exercised and trained.
2. If the animal is a farm animal (cow, sheep, pig, etc), know how it is fed, housed, breeding habits and economic use. Show you know how to handle the animal (e.g. milk cow).
3. If the animal is a bird: cage bird - keep, feed and care for the bird. Domestic bird (hen, pigeon, etc) - keep, feed and care for the bird. Know the uses for the bird, purpose, and know how to handle it.
4. If the animals are bees: keep and manage a hive of bees for a year. Know their uses and show some of their produce.
5. If the 'animal' is fishes: set up and keep an aquarium containing a proper balance of fresh water fish and plant life. (A minimum of 5 fishes is to be kept) Discuss with the Examiner the keeping of the aquarium during the year with the particular references to the results obtained.

Note: Examiner should appoint the time span for the different kinds of animals that they kept.

Sportsman

1. Have a good knowledge of the rules or laws of 2 outdoor games such as football, swimming, hockey, 10nis, etc.
2. Be capable of acting as an official such as referee, linesman or umpire in a game organized for young people (School, Youth Club or Unit).
3. Be able to discuss with the Examiner the advantages that can be gained from participation in sports and show that you have a good knowledge of the history of 2 games chosen by you.
4. Know the names and performances of 2 international, national or local sportsmen. Be able to discuss these personalities with the Examiner and show that you have made a study, or have carried out some research concerning the sportsman of your choice.

Swimmer

1. Know the safety precautions in swimming.
2. Know how to use basic rescue equipments, e.g. life jackets.
3. Swim 200 meters in any stroke.
4. Swim 2 of the following:
 - 50m front crawl.
 - 50m back crawl.
 - 50m breaststrokes.
 - 50m butterfly stroke.
5. Enter the pool from the side.
6. Tread water for 5 minutes.
7. Surface dive and recover, with both hands an object from the bottom. Return to the side of the pool holding the objects with both hands.

Technician

The completion of 1 section will qualify.

A)

1. Construct a model aeroplane (use of kit permitted) which, when flown, meets 1 of the following minimum flight performances:
 - Glider (hand launched) 25 seconds
 - Glider (tow launched with 50m maximum motor run) 45 seconds
 - Rubber powered 30 seconds
 - Engine-powered 45 seconds
2. Control line: demonstrate your model by making a smooth take off, 3 laps level flight at approximately 1.8m and climb and dive with a smooth landing.
3. Have knowledge of the basic principles of flight, including the 3 axes and their effect on stability and control.

B)

1. Build an electric or engine-powered model boat or yacht, not less than 0.5m in length (kit permitted) and show it to be capable of maintaining a straight course of not less than 23m.
2. Give a clear explanation of Archimedes' Principle.

C)

1. Either builds an electric slot car racer (not from a kit, though commercial body and other parts may be used) and drives it to a maximum distance of 122m on any track without stopping or leaving the slot more than 4 times. OR Build a free running car of any type (kit permitted) and demonstrate that it will run for at least 18m. Airscrew drive allowed.
2. Know how track and wheelbase are measured and sketch and explain Ackerman steering.
3. Build a coach or wagon and demonstrate that it runs satisfactorily behind a locomotive.
4. Build a scenic model such as a station, farmhouse, etc. (kit allowed) to scale for a layout.
5. Know what the coding at the front of electric locomotives signifies.

World Friendship

1. Have corresponded regularly (i.e. about once a month) for not less than 6 months with a Scout of commonwealth or country either individually or as part of a Patrol or Unit 'link-up'.
2. Carry out a study of a country of your own choice and discuss with Examiner the difference in the way of life in that country and your own.
3. Either keeps an album or scrapbook for at least 6 months giving illustrated information (gained from correspondence under part 1) on Scout activities, sports, home life and national affairs of that country.

OR submit a set of not less than 20 photographs or color slides taken by yourself illustrating Scouting life, people, customs and scenery of another country.

4. Complete any 2 of the following:
 - Camp or hike for at least 7 days with a Scout or Scouts of another country (either in your own or their country) and produce a log book covering this event to include your impression and knowledge gained of the visiting Scouts and their country or countries.
 - Entertain in your home for not less than 3 days for a Scout or Scouts.
 - Tell the Examiner ways that you have welcome immigrant young people or visitors from another country that you met at school, sports or in your local community and what you have done to make them feel at home there.
 - Give separate talks to your Unit and to a Cadet Scout Unit (each last at least 5 minutes) on the interest and knowledge gained from your international experiences.
 - Make a tape recording of campfire songs from another country or a simple conversation with a Scout in another language, with the meaning of each sentence in English.
 - Devise and run a Unit or Patrol activities based on information gained from an oversea Scout with whom you are in touch or from your own knowledge or another country or countries.