Team Building

Challenges and tasks for developing team work and Team Spirit

SCOUTING IRELAND
ADVENTURES BEGIN HERE

Introduction

The aim of this booklet is to present a number of team building exercises that can be used to develop the Team system in your section, or create working teams as part of a training course. All of the suggested activities and tasks can be easily modified and adopted for different ages and proficiency.

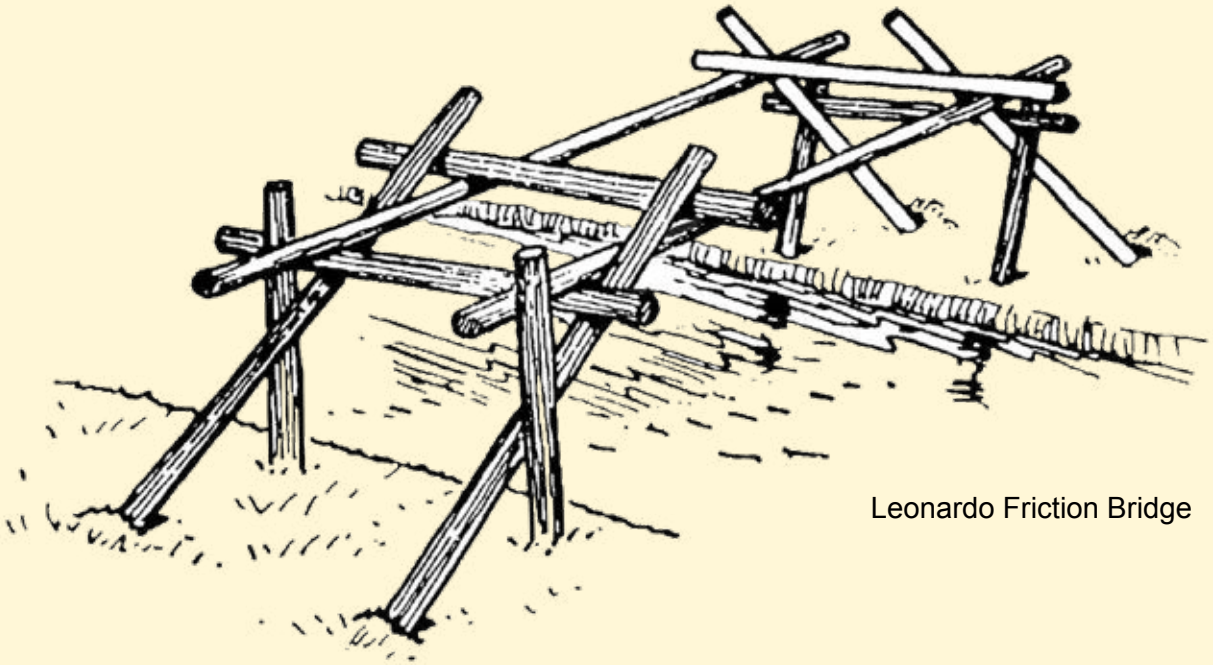
The typical gang is not a haphazard association. Accidents of various sorts, - age, likeness of interests, bring together a somewhat random group of young people.

Immediately the young people react on one another. On a or more leaders come to the fore or emerge from its make up.. The gang sets its standards, begins to do things . It develops into a sort of collective mind, and acts as a unit to carry out complex schemes and activities. The gang is, in short, a social organism, coherent, definite, efficient, with a life of its own which is beyond the sum of the lives of its members.

The Team system is the key method by which Scouting is carried out. The Team system may be adopted and utilises to a greater and lesser degree, but the essential thing is that there should be small and permanent groups, each under the responsible charge of a Team Leader and that these groups be organised as Scout Teams. The qualities of leadership are crafted through character building, training and development.

Through the Team System opportunities for learning are presented to enable your people to learn how to lead, by working in a small team. But if we are to get results, the responsibility must be a real one, and not merely one on paper.

This booklet presents a number of exercises which will help and assist a Scouter to develop the Team as an effective working unit within the programme.
-Each of the exercises presents the Team with a problem or challenge which they must complete in a given time span. It is by placing a time span and time pressure on these exercises that the Team develops as a team and clicks together to get things done in a coordinated and efficient way.



Leonardo Friction Bridge

None of the exercises can be completed by one person alone therefore the Team must work together to complete it.

The Team Leader plays a key part in the organisation and co-ordination of his/her Team in completing the exercise. In overcoming the challenge the Team Leader must work and consult with the Team members - what is the problem/ task? What skills do we possess that can be put into effect to overcome this problem? How will we overcome the challenge? Once the approach is decided on then the Team springs into action. Working together in unison and in a spirit of coordination to success. When the task is completed the good Team will access how the task was completed, learn from the experience and add to its development.

While completing any exercise the leadership of the Team can switch between any member of the Team as different elements of the challenge are overcome. This is a natural process and through it every member of the Team obtain basic leadership skills which are built upon through their time in the Team. This process of layering on of responsibility, skills and leadership opportunities is at the heart of what we call the Team system.

Team Activity

These exercises should be used throughout the programme. A Troop meeting or camp should be constructed in such a way that it forms a number of 10 to 20 minute segments. Each segment of the meeting should be a Team activity either one of the exercises presented in this booklet or other activity related to skills training or inter - Team games. These exercises seek to exploit those skills we impart within the scouting programme in a fun and challenging way.

As a result of using any of the exercises in this booklet coupled with a method of approach - assessment of problem, tackling the problem, evaluation and learning, you will have more effective Teams and exploit the Team System as it was intended to be exploited for the positive development of young people.

Team Leadership

A good leader (Team Leader) would balance the time spent in completing the task, keeping the Team together and looking after the individuals in the Team.

The Team Leader who wants to ensure that the Task, the Team and the Individual are taken into account can make use of several leadership skills. These skills are summarised in the following checklist. They can be applied to any activity, programme or meeting.

The good Team Leader should constantly asking himself / herself :-

In achieving the task...

- did I plan for it carefully with the Team ?
- did I continuously evaluate how it was going ?

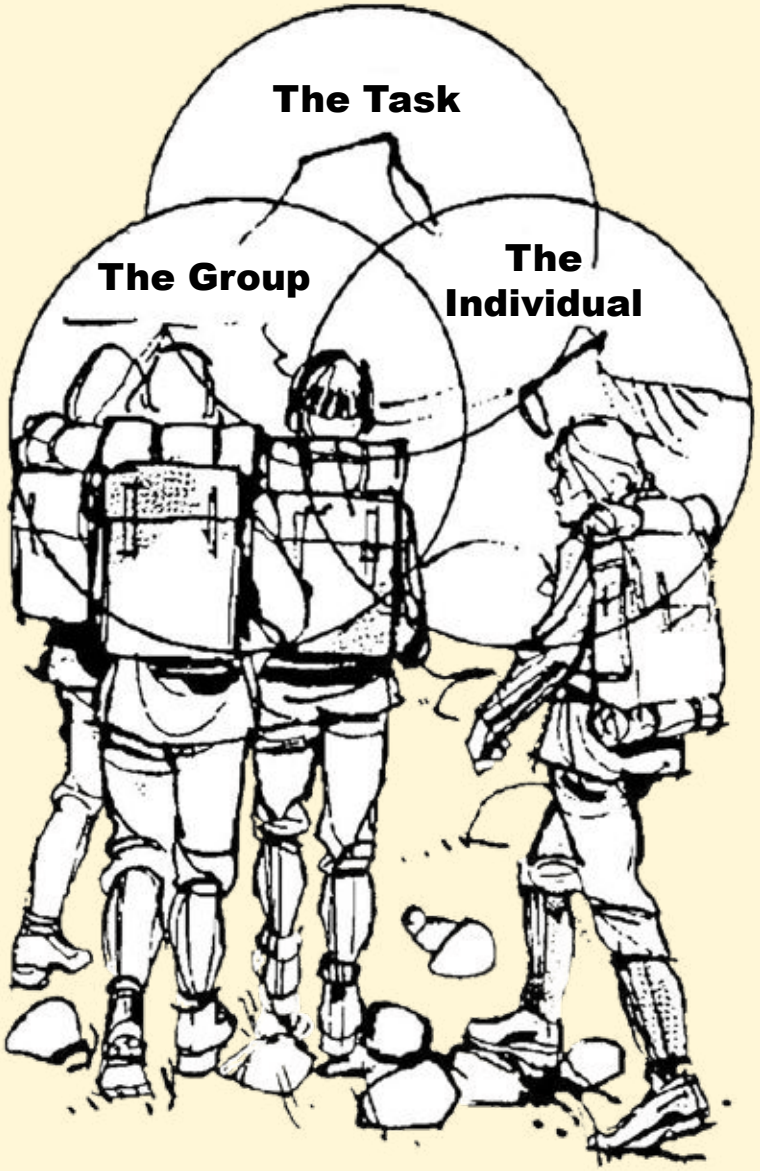
In working with the Team.....

- did I share the leadership with the Team; were they fully involved in making and carrying out the plans?
- did I use all the resources available within the Team
- did I co- ordinate the Team, so that it worked effectively as a team?
- did I ensure that the Team's interests were properly represented when discussing the task with other people?(Scouter)

In encouraging and helping each individual.....

- did I communicate with every member of the Team?
- did I help others to learn new skills?
- did I set an example to the Team?

Many people have these skills and use them instinctively. For others this is not always the case but, by highlighting the skills as we have just done and by offering you opportunities to practice and implement these skills through the activities planned for the course you can become a better leader.



Team Activities

Complete as many of the activities listed within an hour so as to gain maximum points. In completing the activities you may split up the Team , however the Team Leader must maintain control of the whole exercise throughout the time allowed.

Equipment can be obtained from the stores to complete the various activities. This equipment must be returned to the stores before any points will be given for the chosen activity. Some items of equipment can be used in completing two or three activities, however a Team can only have four pieces of equipment in its possession at any one time. Your points card must be signed by a Scouter in order to qualify for the points.

All the Team must be together when the final time whistle is blown. If they are not together they will lose 5 points for every minute it takes to bring your Team together after the final whistle.

Notes to Scouters

The object of this exercise is to see how the Team is organised to complete as many exercises as possible in the time allowed. A key to the success of this mission for any Team is to sit down for a few minutes to discuss what is possible and then do it as a team . Those items which must be done as a team have the highest point values. This activity is designed to be the first exercise you should try with your Teams, with unexperienced Teams it is expected that the Teams will be in a bit of array. It is hoped that over a period of time using the exercises in this booklet we will improve the workings and efficiency of the Team to a point that if the Team were to do the same activity again n the future after a period of team building exercises they would be able to get higher points.

Boil water in an egg shell - the eggshell must be full of water	10 points
Construct a rope ladder - must have at least 10 rungs	8 points
Get all your Team up a tree	10 points
Make a Turks head woggle	8 points
Erect a hike tent	8 points
Make a compass which must have the 16 cardinal points displayed	5 points
Complete an observation test - you must remember at least 25 of the 30 objects displayed within time allowed for exercise	8 points
Construct a tripod tower and get all your Team on it.	15 points
Send a message to the other half of your Team by a signaling method	10 points
Connect a plug top to a piece of flex.	8 points
Complete a short orienteering course- the whole Team	10 points
Make a stretcher and carry a person over a given course	10 points
Prepare and perform a one act play	10 points
Construct a devise that will measure a time period of 45 seconds	8 points
Decode a message and act on the instructions.	8 points

Equipment

It will be necessary to have enough equipment available for all the Teams taking part to complete the exercises . This equipment should be held in a central location at the rules for its distribution should be strictly enforced. If for example there is an item of equipment is big demand then have it only available for a short time span. Insist on all equipment being returned to the stores in proper order within time span allowed for activity - 1 hour.

Exercises

It will be necessary for your team to set up a number of items in advance of this exercise : -

A short orienteering course with at least 6 points on it. It should be possible for a Team to complete the course in 10 to 15 minutes.

A number of pioneering poles and rope should be made available. This exercise should not be done with bamboo poles.

Ropes and rungs will need to be provided for the rope ladder

Magnets and needles will be needed for the compasses

You should arrange a short obstacle course that the Team must follow when carrying he stretcher .

Plug top , flex and a screwdriver and pliers will have to be available for exercise No. 10

Various items could be made available for exercise No. 14 . Items such as sand, water, buckets, a measuring jug, string etc.

The coded message requests the Team to construct a human pyramid

River transporter

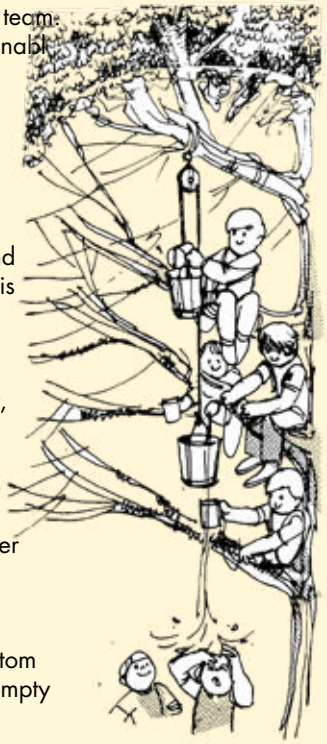
This exercise requires the Team to construct a set of sheer legs as shown and transport the Team across a river. The 'Bridge' can only be constructed from one side of the river and an extra spar will be required to push the first person into an upright position. Once across the river the sheer legs can be controlled from both sides of the river.

Electric fence

An electric fence is set up using a fruit cage net or the netting used to protect newly seeded lawns. The problem is to get the whole Team over the net. As it is electrified it cannot be touched, and anyone that does so requires one minute's artificial respiration by another member of the team. A suitable collection of materials to enable the task to be completed should be available around the area.

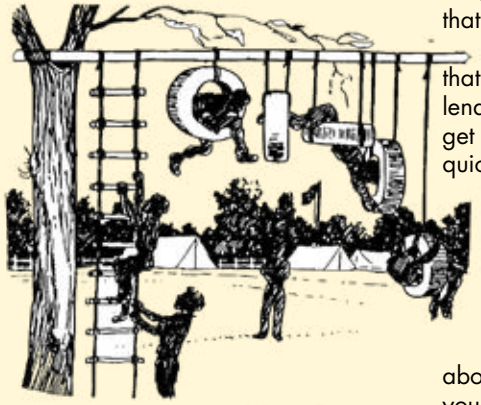
Mug Tree

Two buckets are connected via a single pulley. The bucket on the ground is full of water, the bucket up the tree is empty.
Attached to branches so that they just reach the branch below are mugs.
The top mug will reach the top bucket, and the bottom mug will reach the bucket on the ground.
The problem for the Team is to get the two buckets to balance exactly (meeting halfway) by transferring water up the tree from mug to mug. The Scouts should strategically position themselves up the tree so that it is possible to collect water from the bottom bucket and pass it up the tree to the empty bucket.



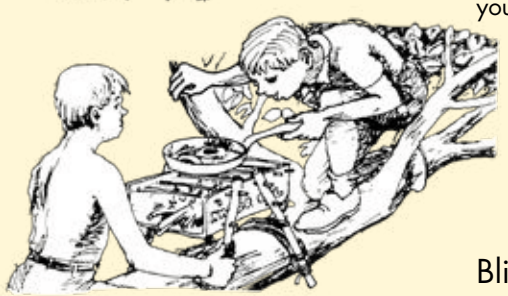
Motyron

Arrange eight used tyres (large tyres) so that they hang at varying heights from strong rope or a spar. (You may find that a local tyre dealer will let you have a lend of some used tyres) The object is to get your whole Team through them in the quickest time.



Haute cuisine

In 20 minutes red ants will come out at dusk arrives. They are very dangerous but are not known to climb above 2 meters up trees. You are to get your whole Team above the danger zone, and prepare and eat supper consisting of tea, and sausage sandwiches, (gas stoves should be used, but a small platform should be constructed to cook on). If you cannot get your whole Team up one tree, distributing supper should prove interesting.



Blindfold string trail

There is little to beat a well planned blindfold string trail over various obstacles. All the Team should be blindfolded except the Team Leader who directs the Team around the course. An effective way of blindfolding the Team is to provide each member with a pair of swimming goggles smeared with ,'Vasoline'- it is impossible to see out of them.

Variation (1), is to suddenly declare the whole Team, apart from the assistant Team Leader, snow blind and the assistant has to direct the whole Team across an ice flow one at a time using two icebergs (boxes) to walk on.

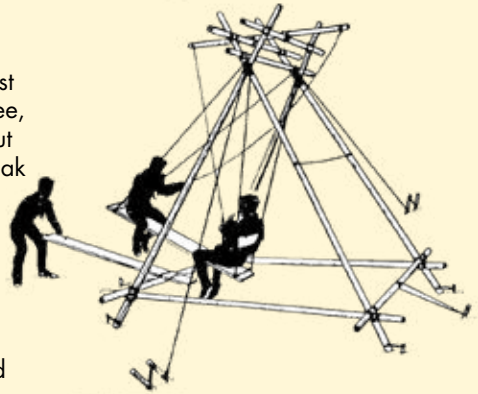
Variation (2) using the swimming goggles pitch a tent.

Variation (3) Set up a string trail which goes around trees ,over branches, under logs etc. A number of mugs are connected to the string through the handles of the mugs. A bucket of water is provided at the start of the trail and an empty bucket at the end of the trail. The Team are invited to carry mugs full of water over the string trail without spilling a drop and depositing it in the empty bucket at the end of the trail.

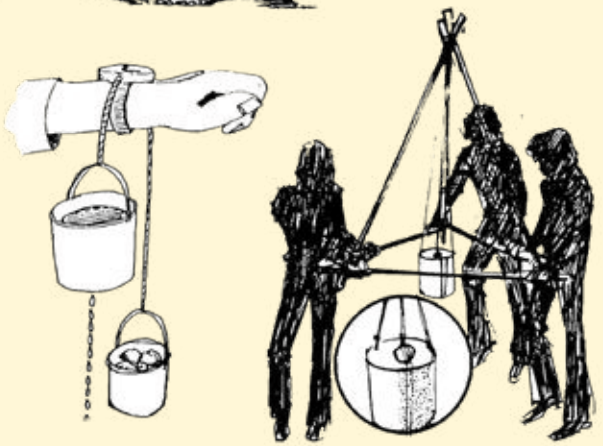
The Slow Assistant

This requires a versatile Scouter to act as the slow thinking person.

Your Team is stranded on one side of a river bank. The river is deep and fast flowing. On the opposite bank is a tree, and leaning against it is a friendly (but not so clever) person who doesn't speak English . You have with you a long rope, and you notice that there is a convenient tree on your side of the river.
What you have to do is persuade the person to tie the end of your rope around his tree with a round turn and two half hitches at a height that will allow your Team to cross the river.



The 'Person' does not speak any other language your Team might try , and you will not only have to mime to him what you want him to do, but also get him to do it, and what if he misunderstands you .... (it is important that you select someone carefully to play the role of the 'local person' because to play someone who is really slow thinking requires considerable ability.)



Funfair

The see - saw at a funfair has broken down. Make a new one from the material at your disposal.

Equipment: two spars for the cross legs, long spar for the top bar, 4 pickets, long plank or long spar for the see - saw, ropes and a couple of decoys.

Tree camouflage

Camouflage your Team and gear which includes this (an object which is heavy and bulky) in this tree at least 3 meters above the ground. Storms are expected so make a tree shelter.
Equipment : Heavy bulky object,rope.

Snake pit

Your Team while retreating from a hike because of injury to one of your Team have come across a swamp full of deadly snakes that can reach up to 1 meter. You must cross the swamp to reach the hospital in time otherwise your Team member will die as a result of his injuries.

Equipment: Two sets of rough stilts (or gear to make them) some light rope.

Time piece

Construct from natural materials an article that will measure time. This must not depend on the sun, moon or any other planetary object.

Equipment: what the Team request within reason.

Telephone cable

This river stretches for miles in each direction. The telephone lines across it are made of a new substance which is only destructible by fire. Your job is to destroy the cable as near the center as possible. The cable may not be touched by hand.

Equipment: what the Team request within reason .

Bulk transporter

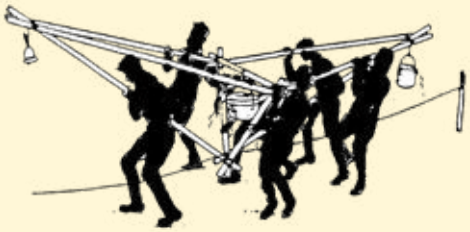
For this incident, the Team must first build the transporter (see sketch) which is specially designed to carry a radioactive liquid (water in a basin) to safety over an obstacle course.

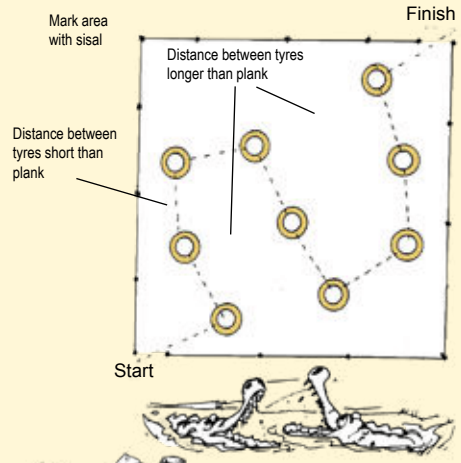
Noises off

In times of emergency it may be necessary to concentrate on the job in hand under difficult circumstances, so for this incident the Team are given a simple project to do, during which all sorts of distractions are provided. A suitable project maybe to encipher a message into Morse code and send it on a Morse key over a distance. The Morse buzzer may also have to be connected up.

Alligator Swamp

You have arrived at a swamp which is infested with alligators. Within the swamp is a number of small islands created by turfs of grass. On the ground beside the swamp is a short plank which originally belonged to a bridge that crossed the swamp. The problem is to get your Team to safety at the other side of the swamp.





You can only stand on the tufts of grass and cross between them by means of the plank. You cannot jump between the tufts, nor can you throw the plank across the swamp, therefore you must bring the whole Team across as one group.

Equipment
9 No. Tyres, Sisal, Poles, 2.4meter plank

Foreigner

The Team meets a foreigner who is in distress but can speak no English. They must try and help him.

Rescue Work - House on fire

In this incident you will need to create a casualty in essence a scarecrow type dummy that near the weight of a young person.

There are many variations of this incident depending on the buildings available. The incident may involve some of the following :- practicing calling the Fire Brigade and taking appropriate action; searching for casualties including crawling and taking the appropriate safety precautions; putting the 'fire' out; moving casualty or lowering by rope and applying first aid treatment for burns or asphyxia. The casualty should be in such a position that he can only be reached by crawling through the building. It should be pointed out that this is only an exercise in team-building. It should be pointed out to all Scouts that in the case of a fire they should get out of the building as quickly as possible and not go back inside for any reason.

Cliff rescue

In this incident you will need to create a casualty in essence a scarecrow type dummy that near the weight of a young person.
This is a practice training incident, it is not proposed that a real person is used in this exercise nor that the incident has to take place at a cliff or dangerous height.

This incident is about ropework and protective ropework and procedures. If you do not have the expertise to undertake this challenge then seek the assistance of the local mountain rescue or civil defense who can assist in creating a suitable incident. and training exercise.
A small out crop or steep hill will provide the same conditions for this exercise.
Remember this is a training exercise you do not want to put your Teams in danger or create your own real incident due to carelessness.

Casualty in tree

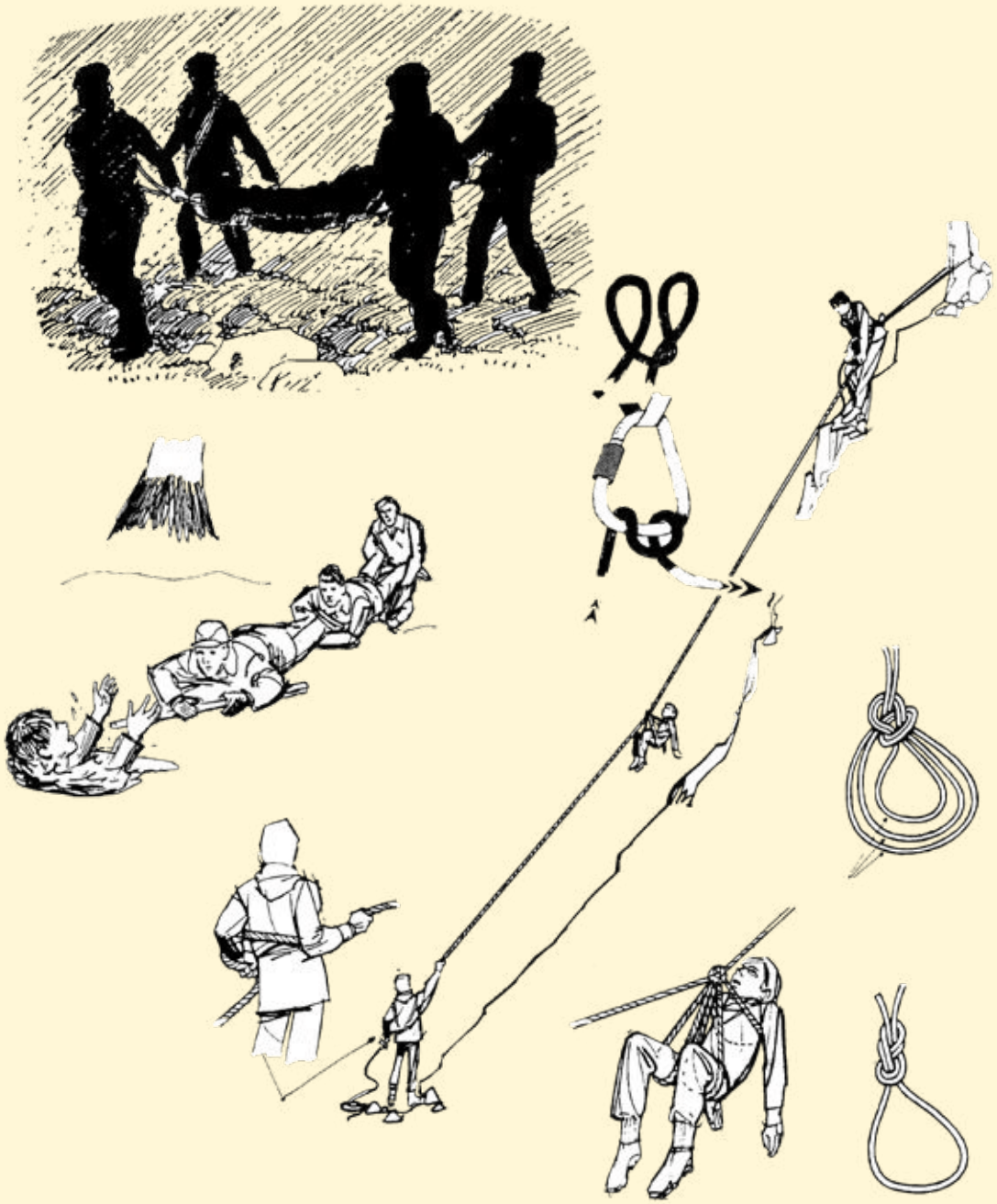
This is a variation of the last incident. To make the situation plausible the casualty could be an airman or parachutist. As with the previous incident the 'injury' should be minor such as a broken arm and a dummy is used as the casualty.

Friction Lowering Knot - Italian Hitch

Note: for added security the casualty should be protected by a separate safety line to prevent it falling to the ground.

Stretcher making and carrying

The making and construction of stretchers provide the opportunity to develop a number of incidents. A good stretcher is hard to make therefore it may be necessary to give some preliminary instruction to your Teams. The carrying of an injured person over difficult ground or an obstacle course will provide the Team with a team-building exercise in itself aside from the building of the stretcher and the care of the injured person.



Frightened child in a tree

The Team have to deal with a child who has climbed a tree and has become too frightened to get down.

Ice breaking

Rather more imagination is required to set up this incident. A hole is required so that part of the casualty is above the ground and ladder or something similar should be available but it need not be placed in too obvious a position.

Further ideas
Rescue from a swamp drowning
Electric shock
Rescue from Island or flooding
underground rescue
Rescue of person trapped in a derelict building.

A problem

Allow 5 minutes for the solution to this problem. The retreating enemy have sabotaged the pontoon bridge by removing all the manhole covers from the pontoons. At the moment the manhole are above the water level, but as soon as vehicles come to the bridge, the pontoons will be depressed and will flood. A long line of vehicles is waiting to cross the river in pursuit of the enemy. You are in charge. You have no way of replacing the manhole covers. What would you do?

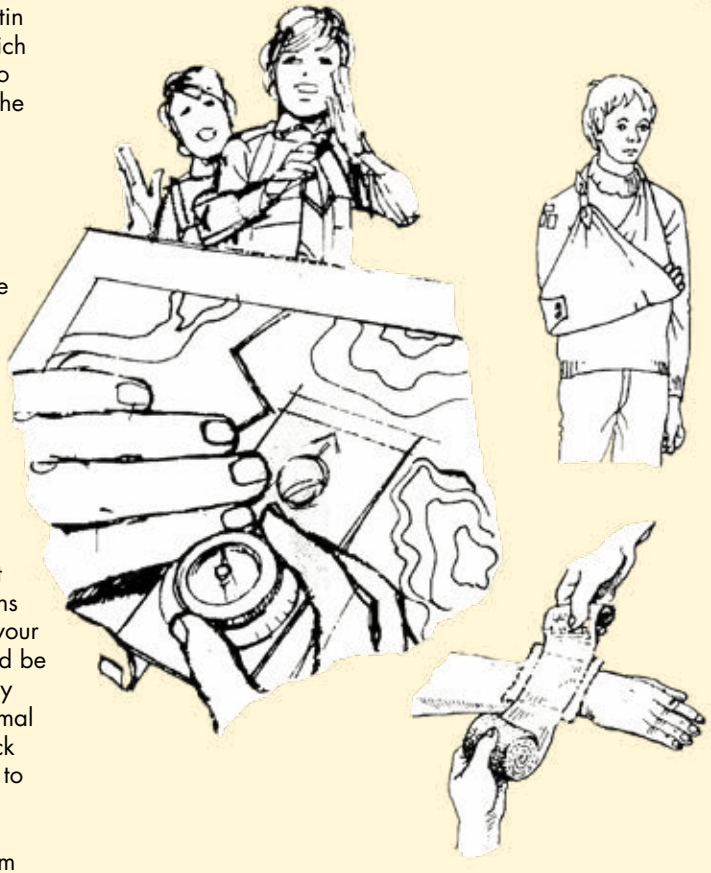
Chain reactor

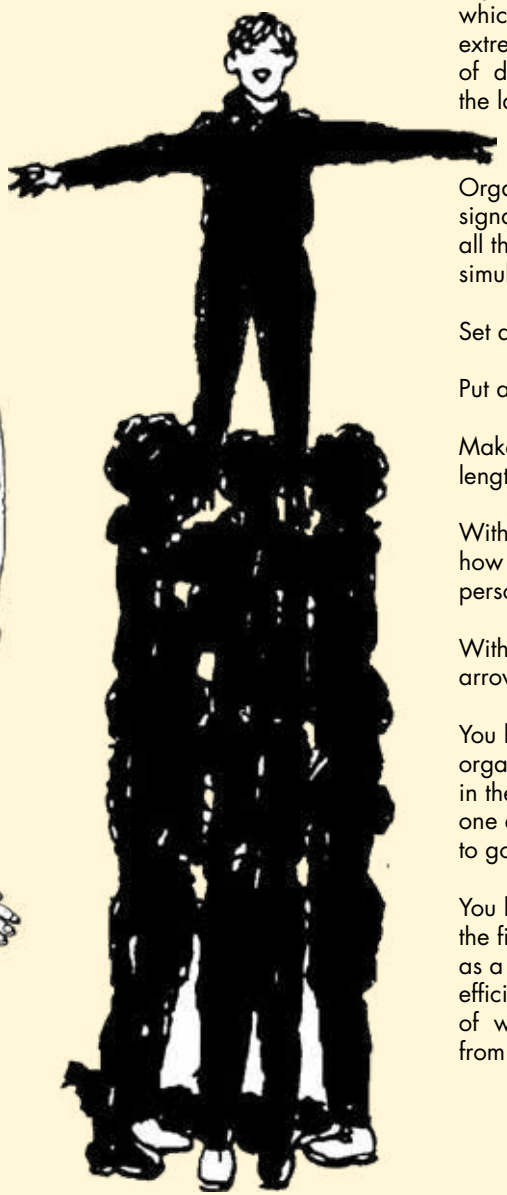
Let each Team construct a 'Chain - Reactor System' which from the initial impulse will trigger - off a series of movements of the greatest possible variety: e. g. a string is burnt through by a candle flame and releases a weight which raises a miniature portcullis which allows a stream of pebbles to cataract down a channel and into a tin which upsets the balance of a lever which sets a pendulum going which ... .and so on . The 'Reactor - System' which has the greatest variety of movement and lasts longest is the winner.

Precision activities

The purpose of this exercise is to test the ability of your Team Leaders to convey precise verbal instructions to their Teams and then carry them into effect . Begin the activity by calling the Team Leaders together and informing them that you are about to issue a series of precise instructions which must be carried out to the letter by their Teams. Allow the Team Leaders to brief their Teams, then call them back for their first instruction. The following are suggestions only. You could have fun dreaming up your own 'Precision Activities' The aim should be to create an impression of great urgency so that the Teams react at twice the normal speed. Instructions should follow in quick succession, allowing the Teams no time to relax.

In exactly one minute from now the room will be plunged int o darkness for the space of sixty seconds. You therefore have one minute to organise yourselves so that , when the lights go out - not before, you can build a human pyramid three Scouts high which will still be intact when the lights go on again.





Without using knots, join six ropes together to make the longest line possible which will hold together when held by its extremities clear of the ground. (One way of doing this is to tuck each rope under the lay of the other twice)

Organise your Team so that when the signal is given (in about 3 minutes time) all the following tasks can be carried out simultaneously in one minute or less : -

Set a map with the compass provided

Put a bandage around an injured knee

Make a tripod with three poles and a length of light rope.

With a handkerchief only, demonstrate how you would drag an unconscious person from a smoke filled room.

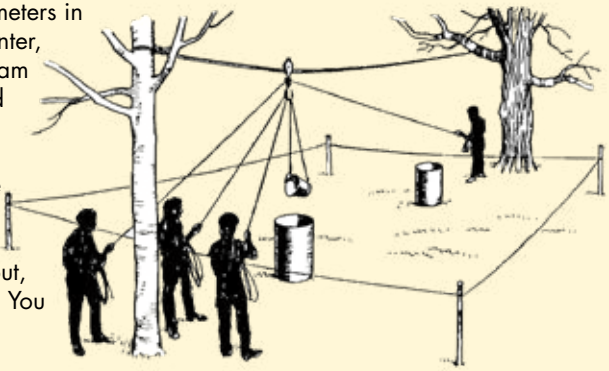
Without the aid of a compass, draw a arrow that will point NNE

You have exactly three minutes to organise a relay race in which each Scout in the Team carries every other Scout from one end of the hall to the other. Be ready to go when the signal is given.

You have 2 minutes in which to master the first circle of the semaphore code as a Team. Be prepared to prove your efficiency by reading accurately a number of words transmitted in quick succession from the far end of the room

Lighted candle

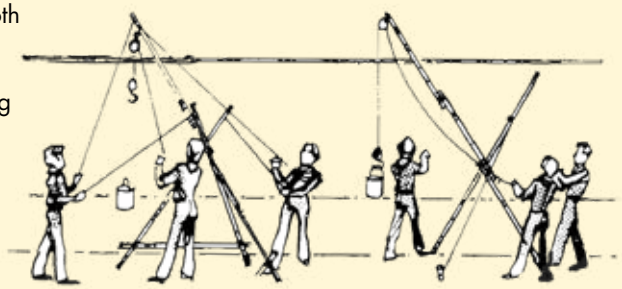
Mark out an area about six meters in diameter and place in the center, about one meter apart, two jam jars, one containing a lighted candle.
Provide ample sisal twine.
Instructions - Working outside the area, reverse the position of each jam jar in relation to each other. If the light goes out, your failure will be complete. You have been warned!



Water transfer

A 'channel' about three meters across. In the middle, two billy cans without handles, one containing water. Staves and sisal are provided.

Instructions - Working from both sides of the channel, pour water from one billy to the other and back without spilling a single drop.



On flat ground mark out with sisal and tent pegs a river 4 meters wide. On the far bank, opposite each Team place three plastic bottles filled with water and tied loosely together at the necks.
On the near side provide each Team with an identical assortment of light spars, cordage and soft wire.

Instructions - Without crossing the river, improvise an apparatus which will enable you to recover the bottles without spilling any of their contents.

The disturbed hornets

An explorer has fallen from a tree knocking himself unconscious and breaking his left arm above the elbow. First aid must be given where he lies and he can only be moved on an improvised stretcher. In falling he has disturbed a nest of vicious hornets, whose sting is known to be fatal. The swarm is hovering in an angry horde just 2 meters above the injured man and are descending at a rate of 30cms every minute.

Rope Climbing Method (Prussik knots)

Flood Warning

Within ten minutes the whole area will be flooded to a depth of 1meter . Darkness is approaching rapidly. A beacon fire must be lit to warn the villagers across the valley. The only gear available is six spars, four lashing ropes, an old billy pot lid and a box of matches.

Prussik Knot

Using prussik knots get your whole Team up a rope into a tree or platform. The Prussik and Bachmann knots will slide on the rope when weight is taken off the knot but will not move when body weight is applied. Practice will be required to master the techniques of climbing a rope using this method .

Cross cut

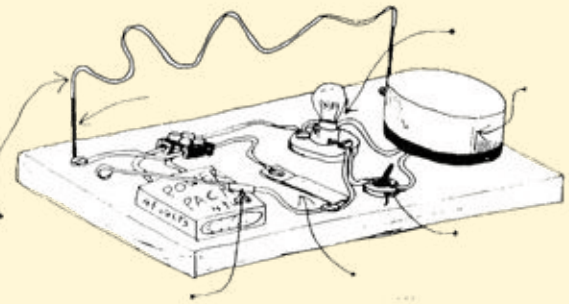
Working from outside a circle approx. 3 meters in diameter created by pegging out sisal on the ground cut a stake with a bow saw . Teams are provided with a bow saw and sisal.

Time bomb

A bomb has been found . A wiring diagram of its layout is available. The problem is to defuse the bomb. The problem is that the drawing can only be seen by one person who is in a safe location away from the bomb. Communication is possible by walkie talkie The Team member must tell the Team what the bomb looks like inside the box and how they must defuse it.

Nerve tester

This exercise is a version of the blindfold trail. It will be necessary to build a nerve tester circuit with an electrical buzzer and some cable. In this exercise the Team must negotiate a short obstacle course as well as keep the nerve tester loop from touching the 'live' wire . An extra difficulty is to blindfold the Team members except the Team Leader and the Assistant Team Leader. The course should only be about 30 - 40 feet long as this is a difficult obstacle to overcome successfully.

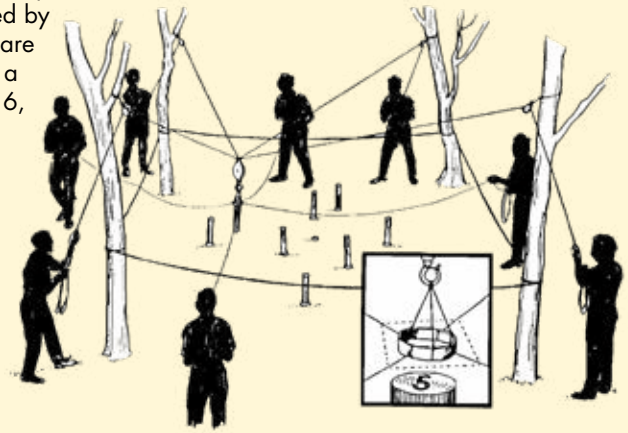


Radioactive Drums

Radioactive material in drums must be kept stable to ensure safety. This is achieved by placing the drums, 9 in total, in a square 3 drums by 3 drums. The drums have a radioactive value printed on them, 5, 6, 7, 8, 10, 12, 13, 14, 15. To ensure safety, however, the drums must total 30 on each branch (vertically , horizontally, and diagonally)

The wire

An oil platform in the North Sea has lost its power supply due to a blown out connection box in the undersea

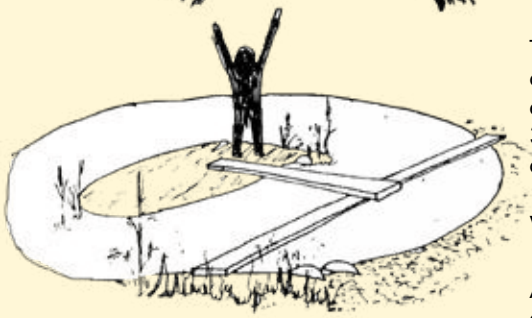


power supply . The problem for the Team is to rewire the connection box . The task is made difficult by the fact that the water is murky as the connection box is on the seabed . To simulate these conditions each member of the Team must wear swimming goggles smeared with Vasoline . Viability is totally impaired.

Colours can be distinguished, but numbers, writing or connector boxes - no way . A connection sequence is provided on the surface (from a position 20 yards away)

The island

The problem is to cross a pond to an island . The planks available are each too short to reach the island 30 - 60cms. No other equipment is available except the two planks.

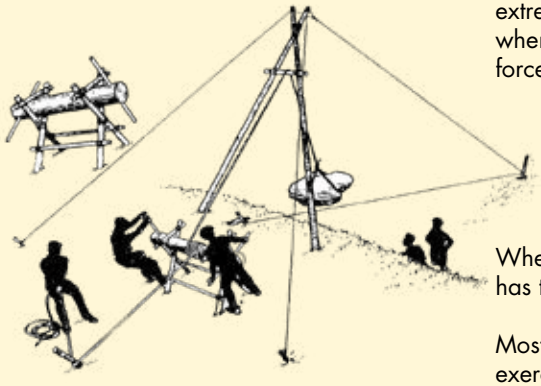


Weight Lifting

A straightforward exercise in block and tackle skills. It is surprising the number of Teams who find it extremely difficult to lift a weight when it cannot be lifted by brute force alone.

In this problem the Team must rescue a man (dummy) who has been trapped under a large slab of concrete on a building site.

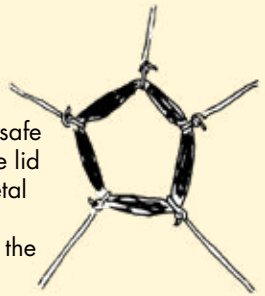
When he has been rescued first aid has to be administered as required.



Most Teams fail to complete this exercise due to improper knowledge in how to rig a pulley system, so some prior training will be helpful to all teams taking part.

Disease Control

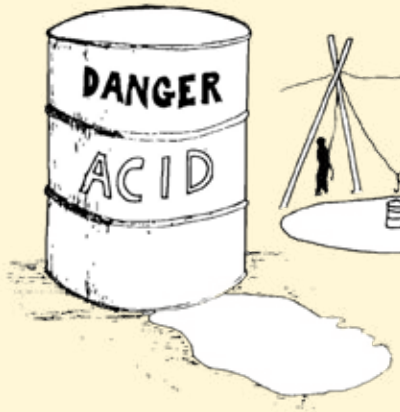
A container in a germ warfare laboratory has been opened in an unsafe environment. The problem is to put the lid on the jar and replace the jar in a metal box. You cannot enter the room (a pegged out area 3 meters around the objects)



Equipment available - string, a rubber band, and one or two coat hangers

Acid Drum

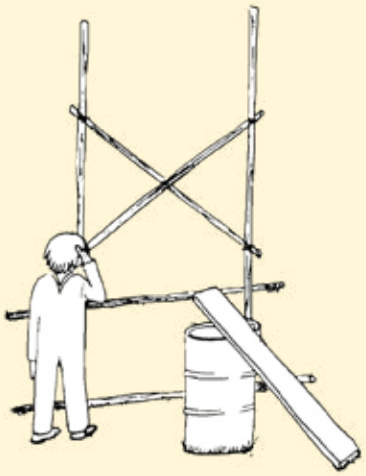
A drum of acid has fallen of the back of a truck and landed on a bridge. Acid has seeped from the drum and has prevented access to it from 5 meters in every direction. The problem is to lift the drum onto a special sealer (piece of cardboard). Time is short as the acid is eating through the steel of the bridge.



Equipment available - a rope and two poles.

The obstacle

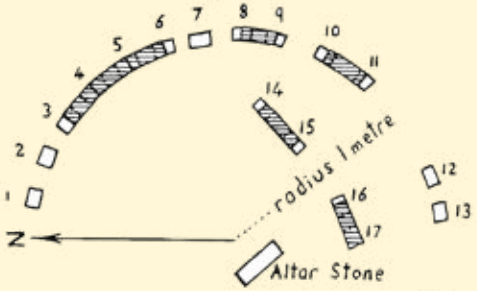
A trestle frame is constructed as shown. The Team must pass over and through the frame and bring what ever equipment used with them. No part of the frame can be touched. The Team must work from an area 6 feet from the frame on each side.

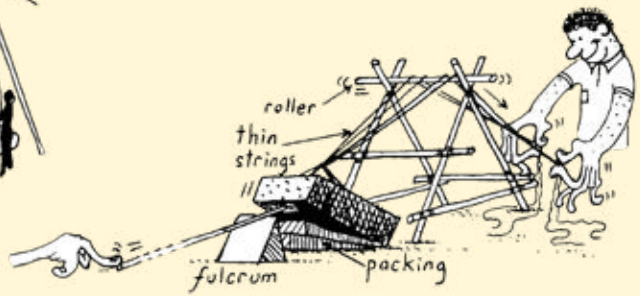


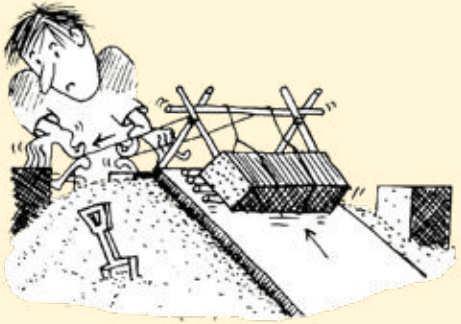
Equipment available - a barrel, and a 3 meter plank.

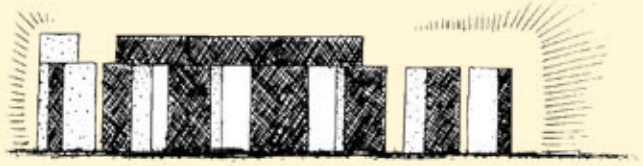
Brickhenge

The problem for the Team is to build a miniature Stone henge, using bricks. The idea is to build the model using labour saving devices as shown in the sketches below. The bricks should not be touched by hand at any stage of the operation









Stage 1 is to mark out a plan of the model on the ground (radius 1 meter) to represent part of the Stonehenge monument.

Stage 2 is the moving, into position, of the bricks. The bricks maybe moved by using cane or dowel rollers and thin string or wool for pushing. Thin sticks can be used for maneuvering or pushing.

Stage 3 Each brick has to be lifted into position using a series of levers or pulley methods. As with stage 2 only light string or wool is provided to complete the task.

Stage 4 The upright bricks can then be buried in sand or clay so that the capping stones can be placed on top of the uprights or a wooden ram built.

This exercise is designed to show how stone age people built these great monuments and structures. Your Teams will be trying to reconstruct this feat in miniature, therefore it is important that they do not have 'strong' materials for completing the task, thus the suggestion that wool or light string is used. Extra mark should be given to those Teams that bind the wool together to give it more strength and employ levering methods to lift the blocks into position.

The Great Challenge Game

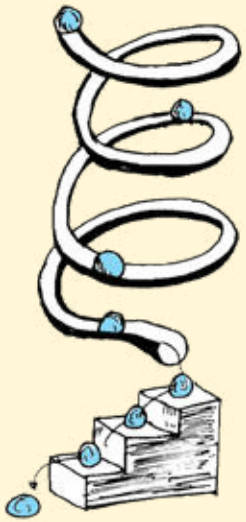
Many science game activities can be utilized into an effective challenge activity for your Group . The challenges are designed as team challenges some with time limits. Others can be stand alone programme inserts or part of the overall evening challenge.

Preparation

In order for this activity to be successful it will be necessary to compile and have available the relevant materials in quantity for the teams to use. In compiling this equipment you will have to imagine in a number of cases what the teams may come up with as a solution to the problem and anticipate the equipment needed .

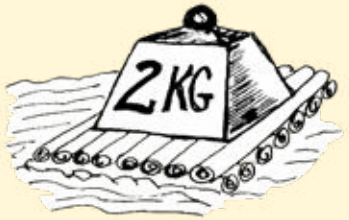
The Challenges

Make a beam with a span as wide as possible which, when supported (but Not Fixed) at each end, will support a weight at its mid - point.
Materials
One sheet of thin card, one roll of sticky tape, scissors, a 250 gram. weight.



Support a drinking glass on a bridge made from a five pound note.
Materials
Three drinking glasses of the same size, a crisp new five pound note

Use one tabloid newspaper to build a bridge that will span one meter and hold the largest load possible. You have 25 minutes.
Materials
Newspaper, paper clips, staples, glue, scissors, objects of varying weight



In 20 minutes,build the highest possible tower using all the cards.
Materials
A full pack of playing cards.

Construct a structure or mechanism that will carry a marble over the greatest horizontal distance before it comes to rest.
Materials
Two sheets of card, 100 paper clips, 10 drinking straws. 40 pins, one marble .

Build a free standing structure that will support a OXO cube as far out as possible from the edge of a table without touching the floor.
Materials
50 drinking straws, 40 pins, one OXO cube

Build a device within an area 25cm X 25cms that will allow your entire team to stand 60cms off the floor at the same time.
Materials six spars, rope

Build a raft able to hold the largest mass without sinking. You may use as many sheets of paper as you like, but may not cut them to make them smaller. After 10 minutes construction time, you will put your rafts to the test by floating them. You may not test designs in water before the final float test.
Materials
A stack of sheets of paper all the same size, a supply of marbles or pennies and a basin of water for the testing.

Invent a device to:- weigh a wild bird without causing it any harm. Enlarge a diagram measure the growth of a plant over a period of one week.

Invent a musical instrument - percussion, stringed, or wind. Play a little tune on it. Put together a band.

Material
Bottles, tins, water, elastic bands , dried peas.

In 20 minutes, build a free standing tower that will hold a marble one meter above the floor.

Material tape, drinking straws, scissors, marble, elastic bands, paper clips.

Design and make a simple mirror system that will allow you to trim your hair without going through great contortions.

Design and construct a vertical 'Adventure Playground' for a marble. The aim is to produce a system of interesting devices or events that will delay the marble's descent from one meter without the application of external power. The winning device will be the one that delays the marble's descent the longest and includes the greatest number of devices.

Material
A base board 30cm X 1 mt, craft sticks, pieces of cardboard, pins, odds and ends, a marble.

Use a warming candle to provide power to a mechanical device that will move an object a distance of one meter.
Figure out how to drop a slip of paper and a euro coin from the same height at the same time so that they reach the floor at the same time.

Material a sheet of paper, a euro coin, scissors. to the ground from a height of 3 meters.

Material
Sheets of paper, tape, scissors.
Put a piece of paper underwater without getting it wet.

Material
Sheets of paper, a drinking glass, a pail of water.

Construct a device that will propel itself along the floor.

Material
Craft sticks, twigs, tape, glue, pins, elastic band.

From any household items, build a gadget with as many moving parts as possible that will successfully perform as an alarm clock.

Material
A stockpile of candles, elastic bands, tin cans, thread spools, and other odds and ends.

With the fewest drinking straws possible, build a framework that wills support a cup full of water at least 5 ems off the ground. You have 25 minutes. You can test your frame as you go, but only on half a cup of water.

Material
Drinking straws, pins, elastic bands, tape, paper clips, scissors, plastic cup with drinking straw through the top (just below the rim, punch hole on opposite sides of the cup and slip in a drinking straw)

Make a paper helicopter that will take the longest time to fall

An initiative game

The following activity is based on three elements - tracking, retrieving instructions and the incident itself.

Using fairly familiar challenges with dramatic renaming (lighting a fire on water becomes 'River ablaze', building a raft to cross water becomes ' Crossing the shark pool' and pitching a tent from outside a circle becomes ' tent on quicksand ' . The activity is run on the following system:
Elements: Tracking, retrieval of instructions, incidents

Organisation: a roughly circular course over open ground with activities taking place at bases repeated for each Team as they arrive at each base. Teams should start at a different base.

Arrangement: Instructions and challenges placed as close together as possible but out of sight of each other.

Timing: 30 or 45 minutes at each bases, according to the difficulty of the course . The time limit is signaled by the blast of a whistle. You may need to allow time for base staff to reset the incident before the next Team arrives.

Marking : Every Team is given 100 points to start with. They lose 2 points for every infringement (such as a foot inside the tent pitching circle) and 10 points for failing to complete the challenge on time.

You may also consider awarding 2 bonus points for the best team at each incident and 10 points for completing the challenge in half the allotted time. How difficult you make the course is up to you. You should try to mix the most difficult incidents with

and easy retrieval of instructions and vice versa, so that instructions which were merely hidden required the Team to cross a mine field using spars, ropes , and pickets and a simply pulley setup, while instructions which had been extracted from a billy pot inside a circle (radius 3 meters) by means of bent sticks about a meter long and short lengths of string led to bundles of firewood for the relatively easy task of lighting a fire on water. Instructions could be wrapped in plastic bags and placed in a bucket of water up a tree (points lost for spilling water) or in an immovable plastic bottle into which no pointed object can be placed. You could also place a rogue item at each base just to confuse the Teams. Instructions should be in the form of written messages or on tape in each case , the written messages may however be written in code .

Other ideas could include
Carry a hike tent the whole way round and put it up at the very end.

Remember a very long number

Gut a fish
Follow a compass course or the location of each base is a grid reference

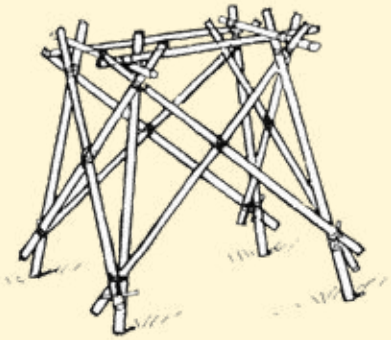
Make a bucket of sticky goo and place a stick in it, with a message saying the next clue is 'down here'. The clue is actually stuck underneath the bucket but normally the scouts don't think of this until they have tried everything else .

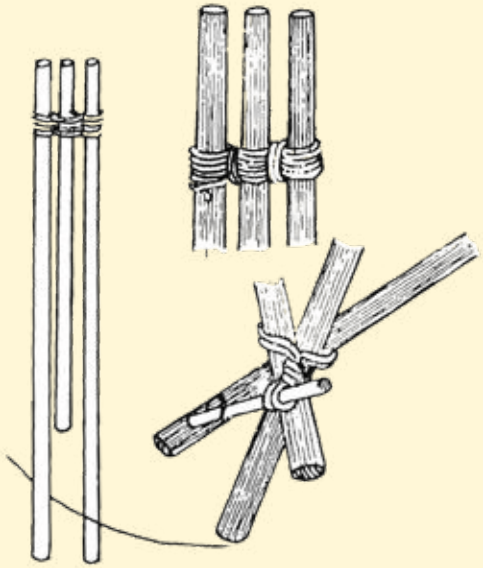
Solve match stick puzzles set up using pioneering poles along the lines of 'turn these three squares into four by moving two poles'. (The way to do this is to experiment with twigs before heaving the poles about.)

Carry some pioneering poles over a short obstacle course before making something reasonably simple.

Provide a QR code that when scanned leads to a recorded message.

Ten Minute Tower





Scout Engineering

You will require a number of enthusiasm are the main ingredients of Scout engineering or pioneering as it is know in Scouting circles. Pioneering provides the opportunity for young people to build, think and be part of a team. Through the activity of pioneering a Team can come into its own and experience the real purpose of scouting - the Team or gang system.

Despite the myths that may exist, pioneering only requires the knowledge of one or two knots. Namely, the clove hitch and the reef knot, two of the simplest knots to learn. After that a basic knowledge of stable structures is desirable. However, experience will teach you the latter once a number of structures have been built . The secret of successful pioneering is experience. Start small and simple, then progress to bigger things. In this way basic logistic problems associated with pioneering can be overcome - lifting poles, tightening ropes, stringing up pulleys.

If the full development value of pioneering as part of the Scout programme is to be achieved then we must let the young people work together in its construction.

Equipment

The equipment required for any project will include:
Poles /spars
Rope
Pulleys
Sacking

Most Groups have some form of pioneering equipment which has been accumulated over a number of years. If you have a supply then you are ready for action. For those who have no tradition of pioneering within your Group you could contact another Group locally to see if you could borrow some equipment. Some Counties have a stock of such equipment .

You could contact your local campsite who usually provide the facility of pioneering equipment to campers and those who wish to partake in pioneering.

So you have no excuses. If you decide to purchase equipment do so slowly and with care, ropes and pulleys are expensive. Perhaps you could allot some money each year towards the provision of such equipment.

Some safety points

Never let anyone slide down a rope using their bare hands .

Those taking part should wear safety helmets.

Always have a First Aid kit handy.

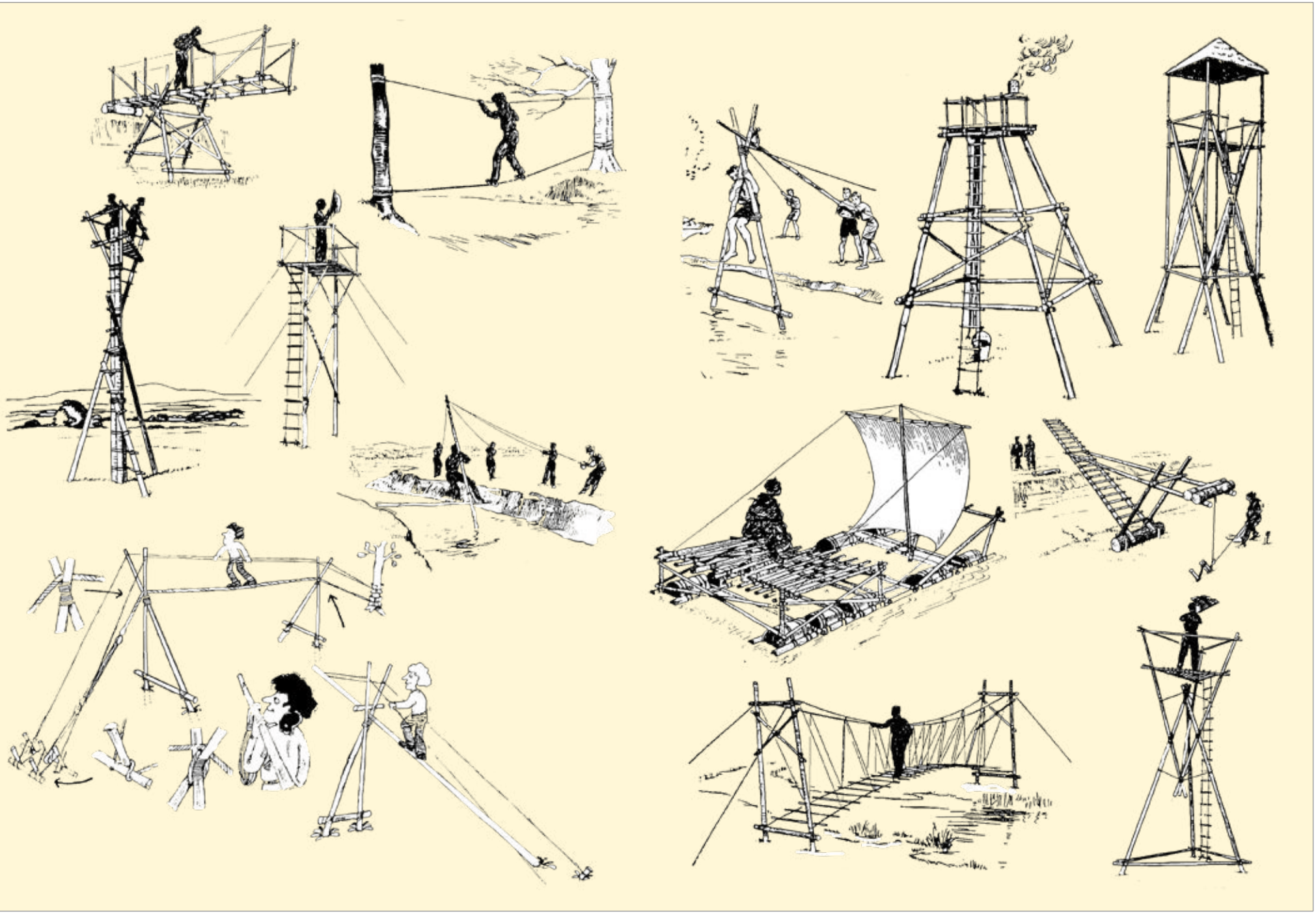
Access each project carefully and make sure ropes and poles are suitable for the task in mind

Leonardo Bridge

This bridge is built without lashings. The bridge is held together only by the locking of the poles and the friction created by this locking. It requires Team co - ordination and organisation to construct the bridge correctly.

Ten Minute Tower

This tower is constructed using a tourniquet type lashing { as shown). It is called the ten minute tower as its designers reckon it can be built in this timespan if the Team work together as a team.



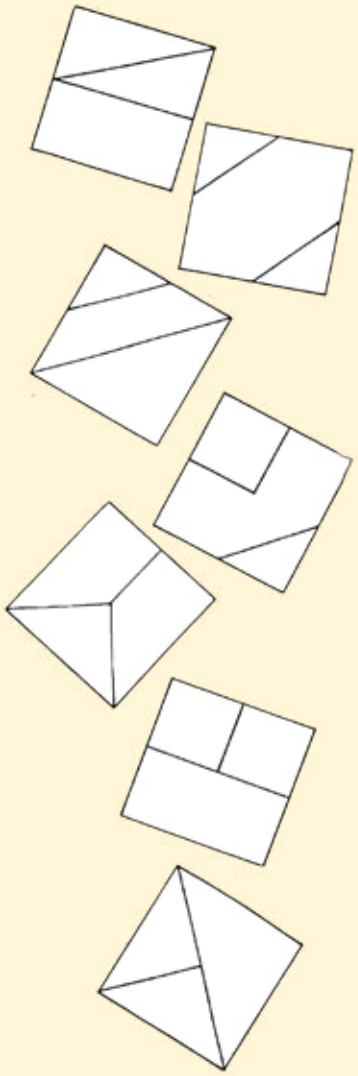
Broken squares

This game is designed to develop co - operation within a Team. Each Team is given an envelope in which there is seven smaller envelopes. Each small envelopes contains three shapes made of cardboard. The object is for each individual in the Team to make up a square. (It is only possible to make the seven squares if everyone in the Team co -operates.)
Specific limitations are imposed on the Teams during this exercise: -
No member of the group may speak
No member may ask another member for a card or in any way signal that another member is to give him / her a card.
Members may, however, give cards to other members.
In playing this game you should use Leaders to act as observers. The job of the observers is to make sure that the rules are obeyed. Points to watch for include;-

Communication between members

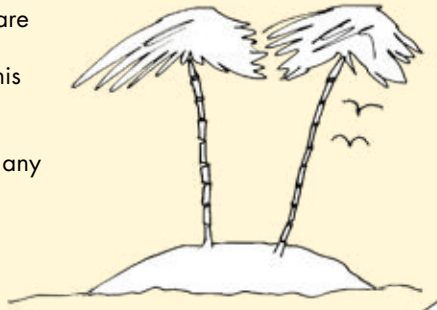
Participants may not simply throw all their pieces into a pile for others to take - they have to give the pieces directly to one individual.
You should also, as an observer, be looking for some of the following:-

Who is willing to give away pieces of the puzzle.
Did anyone finish his/her puzzle and then divorce himself/herself from the struggles of the rest of the Team.
Is there anyone who continually struggles with his pieces but yet is unwilling to give any or all of them away.
How many people are actively engaged in mentally putting the pieces together.
Periodically check the level of frustrations and anxiety - who is pulling their hair out.
Was there any critical turning point at which time the group began to co - operate.



Cutting Instructions
Each envelope must contain 3 pieces taken from different squares. If the Team has eight members make up two squares the same.

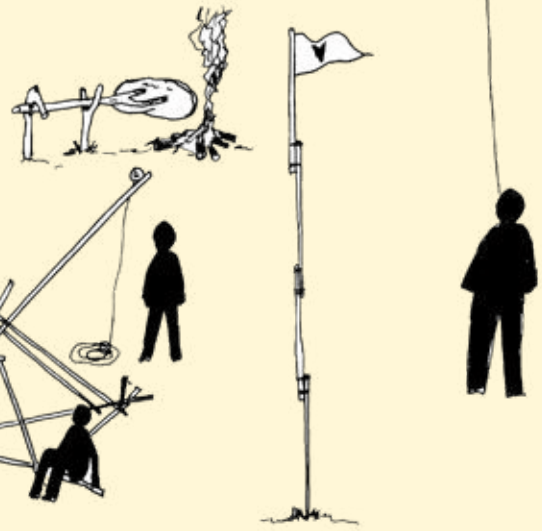
Instructions to Team
In this packet there are seven envelopes, each of which contains pieces of cardboard for forming squares. When the signal is given to begin, the task of your Team is to form seven squares of equal size. The task will not be completed until each individual has before him/her a perfect square of the same size as that held by others.
Specific limitations are imposed on the Teams during this exercise: -
No member of the group may speak
No member may ask another member for a card or in any way signal that another member is to give him / her a card.
Members may, however, give cards to other members.



Desert Island exercise

In order to set up this project you must first mark out islands on which your Teams can be marooned (5mts X 5mts). On the island should be placed all the equipment necessary to complete the tasks. Below are listed a number of tasks that the Team have to do in the time limit.
You can vary the list of tasks to suit your own situation or run the exercise at different times with the tasks changing each time the 'island is visited'

Instructions
Your Team has been marooned on a desert island and you must do the following tasks within 60 minutes.

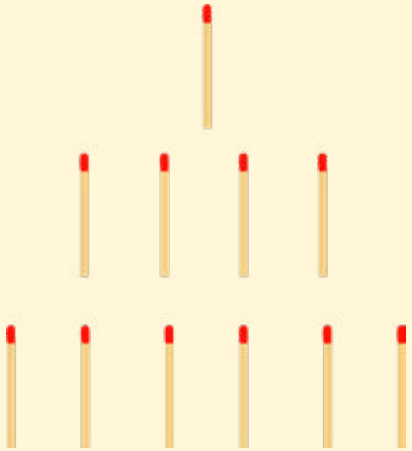


Light a fire with flint and steel.
Send an S.O.S. message by smoke signal
Cook food provided without utensils.
Erect a flagpole and fly a flag.
Construct and fly a kite
Construct a line thrower
Once marooned on the island nobody can leave the island until the allotted time has passed

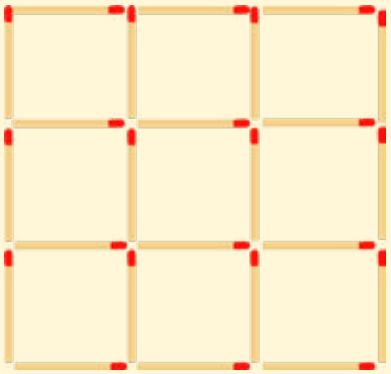
The Great Match Challenge

This challenge can be completed with matches but is better fun and more constructive as an team building exercise if the matches are big pioneering poles - it is better however for the Teams to work it out with matches first to save on muscle power

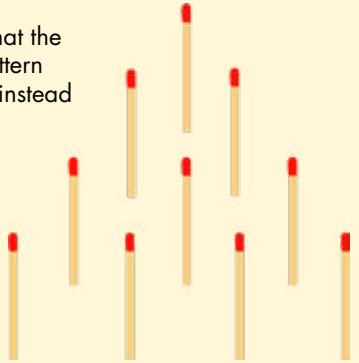
Rearrange the matches so that one touches the other six. The matches can't be bent or broken



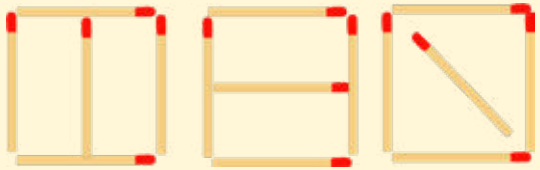
This classic Chinese game is played between two player. Matches are placed as shown. Each player in turn can remove as many matches as they like from any one horizontal row, The player to pick up the last match loses.



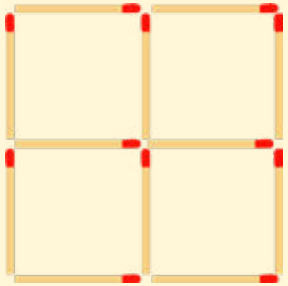
Remove eight matches from the twenty four matches so as just to leave two squares remain that do not touch.



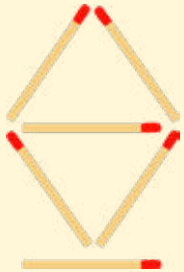
Rearrange 3 matches so that the triangular pattern points down instead of up



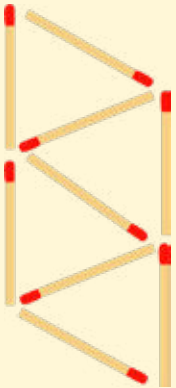
Remove six matches to make ten



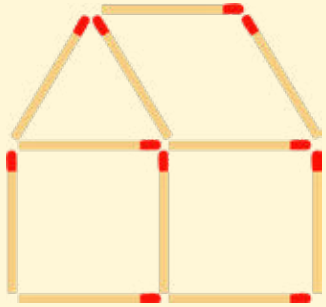
Rearrange two matches to make seven squares



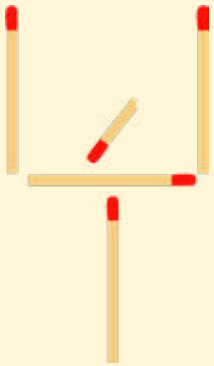
Rearrange three match to make eight equilateral triangle



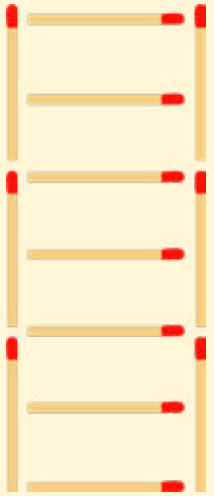
Make four triangles all the same size as the one's shown with only six matches



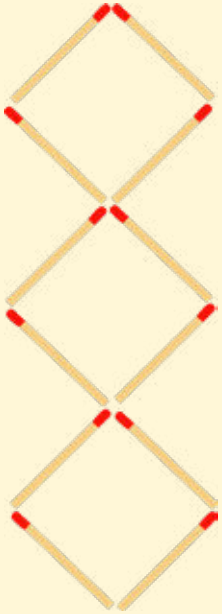
Move one match so that the house face east and not west



Rearrange two matches so that the 'olive' ends up outside the 'glass', but the 'glass' remains exactly same shape.

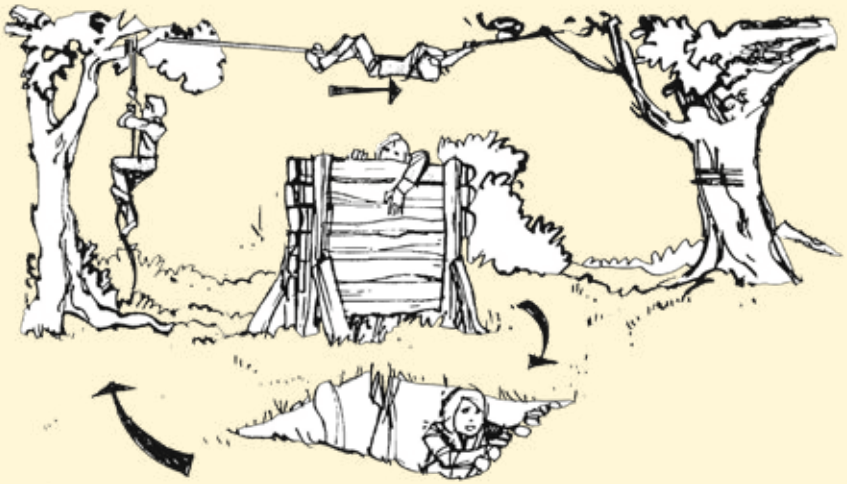


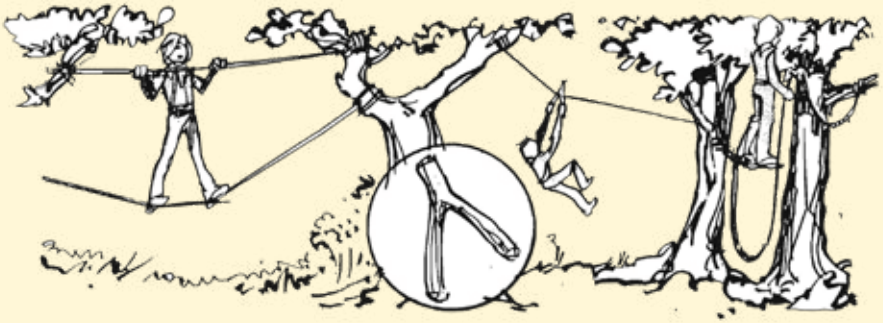
Remove one match and rearrange the remaining to make six equal squares

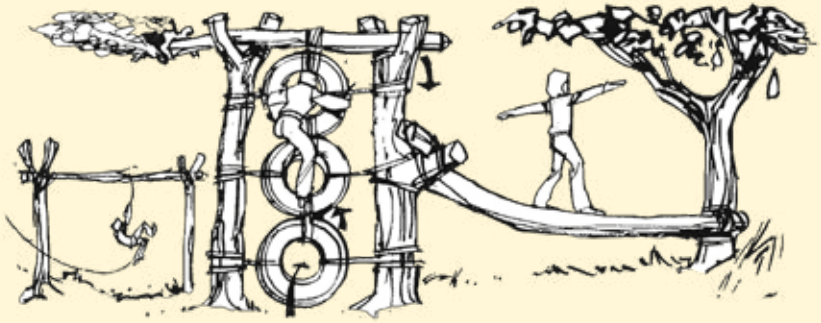


Rearrange the twelve matches to form seven diamonds

Commando courses







A commando course consists of a number of obstacles either constructed on site or natural obstacles. The object of a course is to develop team spirit and co - ordination. It is always easy for the physically strong and fit members of any Team to run over the obstacles quite easily. The object of the exercise however is to get the whole Team over the course in the shortest time

Low level rope courses