September
2022

ERASMUS+: BUSHCRAFT AS A YOUTH WORK TOOL

Project Number:
2019-1-UK01-KA205-061294

BOYS & GIRLS CLUBS ESSEX

SEAL CYPRUS

ymca ireland

FuturoDigitale

Center for Sustainable Community Development

YMCA GEORGE WILLIAMS COLLEGE

With the support of the Erasmus+ Programme of the European Union

Table of Contents

Glossary

Combustion – the process of burning something

Competencies – the knowledge, skills, abilities, and other characteristics required for effective practice (Martin, Breunig, Wagstaff and Goldenberg, 2017)

Compression – the act of making something (e.g. material such as wood, etc.) smaller by pressing it together.

Cordage – ropes and/or cords used in ship's rigging or for tying things up with

Experiential learning - the process through which the learner constructs knowledge, skills, and values through direct experience (Bunting 2006:5)

Filtering – passing liquid through a device to remove unwanted materials

Foraging – searching over a wide space or area for food

Friction - the action of rubbing one surface against another

Hydration – replacing fluids, especially water, in the body

Hyperthermia – when the body overheats because the body's heating regulation has failed

Hyponatremia - when the body's natural sodium levels in the blood are abnormally low. Sodium is an electrolyte that helps to regulate the amount of water in and around the body's cells.

Hypothalamus – located at the base of the brain, its role is to regulate body temperature and hormonal release.

Hypothermia – when the body becomes abnormally and dangerously cold

Informal learning – learning that occurs outside of a formal school curriculum

Nonformal learning – planned structured programmes and processes of personal and social education for young people designed to improve a range of skills and competencies outside the formal educational curriculum.

Wildcrafting – the practice of harvesting plants for food or medicine from their natural habitat

1. Background

Against a background of increasing health risks, *The EU Youth Strategy (2010-18)* identifies health and well-being as a key initiative. Across the EU, the youth work sector is expanding, with increasing recognition, as part of the non-formal education sector. Therefore, it is vital to ensure that youth work remains fit for purpose in equipping young people with the social, civic and employment skills fundamental to their development and the future prosperity and welfare of all European societies.

Outdoor learning is an active, experiential learning approach that is open to all. Bushcraft – the knowledge, skills, attitudes and behaviour related to the outdoors – helps to develop an understanding of oneself and others; encourages tolerance, understanding, cooperation and collaboration; and fosters positive attitudes towards health, risk, the environment, and community. Engaging with nature also encourages adventurous behaviours, which help to hard-wire the brain, build and maintain resilience, and help children and young people to manage choices to take healthy risks (Robb, New and Richardson 2015). Experienced far more by children (5-12 years), principally through school and social-related activity, than teenagers and young people (13+ years), forest schools and bushcraft practices promote mental health, physical activity, and healthy lifestyles while raising awareness of teamwork, intercultural learning, and responsibility (Robb et al., 2015).

> **“Outdoor learning is an active, experiential learning approach that is open to all”**

1.1 Bushcraft as a Youth Work Tool

The project, *Bushcraft as a Youthwork Tool* (BYT), was funded by Erasmus+ and addressed two of the defined aims of *The EU Youth Strategy (2010-18):*

1. Promoting mental and sexual health, sport, physical activity, and healthy lifestyles
2. Raising awareness of how sport can promote teamwork, intercultural learning, and responsibility.

Conducted between 2019 and 2022, the 2-year project was furloughed for 12 months in 2020 due to the various government responses to the COVID19 pandemic. It involved six partners: Essex Boys and Girls Clubs, UK, who delivered the training, and four partners who benefitted from the training: SEAL Cyprus, the National Council of YMCA's Ireland, Futuro Digitale, Italy, and CDCD, Romania. YMCA George Williams College, UK, evaluated the project and collated the curriculum material in this handbook.

While capitalising on non-formal learning opportunities in the outdoor environment and promoting informal learning opportunities, BYT represents an attractive, non-formal, outdoor educational programme, which is an innovative approach for engaging youth groups, particularly marginalised youth. This innovative project utilised the specific outdoor youth work methodology of bushcraft as a youth work tool (BYT) to provide youth work practitioners and youth volunteers with the necessary competencies to engage young people through BYT activity directly. Priest and Gass (2005, as cited in Martin, Breunig, Wagstaff and Goldenberg, 2017) identified 12 competencies, which are divided into three general categories, and developed during engagement with the outdoors.

1. **Hard skills**
    - Technical skills
    - Safety skills
    - Environmental skills
2. **Soft skills**
    - Instructional skills
    - Organisational skills
    - Facilitation skills
3. **Meta skills**
    - Problem-solving
    - Decision making
    - Experience-based judgement (Martin et al., 2017:3).

The acquisition and development of these competencies in BYT are central to this project. At the same time, the approaches and methods, framed as part of non-formal and relational practice, promoted young people's positive mental health and well-being.

1.2 The Proposed Project

The initially proposed project consisted of five 3-day residentials, which were to occur in each partner countries over the project's life. Delivered by the EBGC delivery team, five youth work practitioners from each of the four partner countries would learn the associated theory and the practice of each topic: Survive - survival, fire, shelter, water, and food; and Thrive - games, projects, navigation, and mindfulness. Activity in the five countries also allowed participants to experience different cultural and intercultural learning responses in various contexts and outdoor environments.

Following the residential, those who attended would deliver a similar pilot programme based on the knowledge and skills gained by young people in their home country. The result was to create a pool of youth volunteers trained as peer educators, with the support of the trained youth work practitioners, to reach other young people. Promoting inclusion and creating improvements in youth work practice in the partner countries, the project would enhance the capacity of youth workers and organisations to promote mobility and cooperation between all stakeholders and the network of organisations they link with at a local level. Through their involvement as youth volunteers, with an evidenced assessment of personal development, this project was to promote the empowerment of young people.

1.3 COVID-19 Response

The original project began in earnest in February 2020, with the first residential held in Cyprus as intended. Representatives associated with each of the partners attended and spent three days learning about bushcraft as a youth work tool. A cultural exchange also occurred.
The impact of COVID19 the following month saw international travel suspended worldwide, and the project was furloughed for 12 months as the team waited for the borders to reopen. Each organisation implemented changes to their programs based on the new movement rules.
After a year, the evaluation and administration teams decided it would be best to reverse the original plan of holding the residentials first and then create the E-Toolkit. This document is designed in partnership with the EBGC delivery team and will be trialled by the partners once it has been completed.

1.4 The Project Aims

1) Create joint teams of youth work practitioners and youth mentors, to deliver BYT activities, immediately in the partners' national contexts, and later, across Europe and elsewhere.
2) The production and dissemination of a practical, accessible, E-toolkit, to be used by practitioners and young people alike, to run a variety of BYT activities.

1.5 The Project Objectives

1) Train 24 youth work practitioners, from different EU contexts, in a new methodology, BYT, for engaging and working with young people.
2) Enable these teams of youth work practitioners to go on to deliver BYT activity for other young people.
3) Create a group of youth mentors to operate as 'peer educators' (youth participation in this process is fundamental) in the promotion and delivery of the BYT programme through multiplier events and future activity.
4) Develop a 'Forest Schools and Bushcraft Practices' E-Toolkit, for use by youth work practitioners and young people (to be available in each of the partners' languages).
5) Enable the EBGC Trainer Team to acquire greater intercultural competence in delivering BYT.
6) Explore and affirm how relational/non-formal approaches in the delivery of outdoor education can enhance the general wellbeing of young people, including their mental health.

1.6 The Evaluation Process

The planned evaluation process, which was to occur after each residential, did not happen; however, feedback from the Cyprus residential in 2020 helped to shape the eToolkit. The quality and appropriateness of the materials developed were evaluated by the partners upon its completion. The partners were also responsible for the translations.

The following learning assessment frameworks were used for guidance: Youthpass, *Level 3 Outdoor Learning Diploma* and the *ETS Competence Model for Youth Workers to Work Internationally*. In terms of youth work professional development, this was mapped against the *ETS Competence Model for Youth Workers to Work Internationally*.

2. The Partners

Essex Boys and Girls Club

Essex Boys and Girls Clubs (EBGC) has a long history of using outdoor education as a suite of youth work tools. Founded in 1939, in 2021, it had 24 full-time staff working with 125 clubs, with approximately 9,356 members aged between 11 – 25 years of age, across Essex and East London. Much of the work involves young people from deprived areas or low-income backgrounds. Working with schools across Essex includes the *Respect Project,* an early intervention programme for 13-14-year-olds designed to help them improve their ability to deal with life's problems and become more resilient. The project culminates in a week-long residential at one of the organisation's four residential centers where the young people take part in challenging outdoor activities, which push them out of their comfort zone and offer them a sense of achievement.

Forest Schools and Bushcraft sessions are delivered to pupils whose teachers have identified disengaging from their education.

CSCD, Romania

Established in 2010, CSCD is a nongovernmental association that works with rural communities in SW rural Romania, particularly in Dolj County. Working closely with the public and nongovernmental actors, CSCD trains youth workers from Romania and the Member States of the Council of Europe on nonformal education, social entrepreneurship, inclusive education, education for citizenship, social business models, participatory action research, detached and open youth work.
For the last four years, CSCD has piloted and implemented innovative youth work methodologies, organising activities in Romania's rural areas. The CSCD's team has developed and piloted diverse youth work training methodologies on democracy, active citizenship, youth rights, detached youth work, social entrepreneurship, community organizing, stakeholders' support, etc.

Working closely with different stakeholders in the community – schools, village councils, social work departments, and other NGOs. CSCD is also permanently seeking opportunities to support its beneficiaries – youth with fewer opportunities (including NEETS) and youth workers working with

youth from the rural areas to get involved with different personal and professional development opportunities.

Futuro Digitale, Italy

The aim of Futuro Digitale (FD) is to promote the empowerment of young people through the creation of real opportunities for educational and professional development and stimulate youth entrepreneurship in an international environment using various models and opportunities such as e-learning and in-class training, mentoring, vocational placements, customized working experiences, youth exchanges. FD's team consists of six paid and five volunteer staff.
FD promotes NFE methods to work with youth in various topics like digital literacy, healthy lifestyle, entrepreneurship, employability, soft skills, creativity, human rights, active citizenship, and sports. We strive to make a positive change for youth through youth.

The members of Futuro Digitale have rich experience in coaching, consulting, informing, and training youth, youth leaders, youth workers and representatives of various civil society and governmental organisations in project management, organisations capacity development, international cooperation, high-quality youth work development, youth participation, intercultural learning, and other relevant topics.

The National Council of YMCA's Ireland

YMCA Ireland is the umbrella organisation for 20 local YMCAs throughout the island of Ireland, engaging approximately 25,000 young people in a wide range of activities, including youth clubs, vocational training programmes, health-related programmes, advocacy and information-based programmes, leadership development and global youth work activities. YMCAs employ over 250 staff.
YMCA Greenhill is YMCA Ireland's outdoor learning centre which provides activities for up to 10,000 users per year through day activities, residentials and summer camps. Groups choose from a menu of different activities, including bouldering, archery, canoeing, abseiling, hiking, orienteering, low and high rope courses, zipline, laser tagging, scavenger hunts etc. Delivered by a team of up to 15 international volunteers who are supported by a team of 20 staff, YMCA Greenhill seeks to create a non-formal learning environment for young people which allows them to develop through positive relationships, growth in self-confidence and active participation in group

activities. It seeks to support the development of personal assets in individual young people within a context of holistic personal development combining the elements of body, mind and spirit. The programs are devised as responses to identified needs within each visiting group.

SEAL Cyprus

SEAL CYPRUS is a "digitalised" organisation trying to keep up with the challenges of the cyber world, the culture of computers, and information communication technologies. Five staff have created digital educational resources for youth workers who work with vulnerable youth to look at how social media affects the youth identity and mental health of young people. The target group consists of youth professionals, people interested in youth welfare, and young people, including those with fewer opportunities (i.e. people who face social barriers, financial barriers, disabilities, learning difficulties, cultural differences, health problems or geographical difficulties) immigrants and refugees.

Providing educational opportunities to young people and youth professionals (youth workers and youth trainers) to improve key competencies and skills and boost employability, SEAL Cyprus advocates for the recognition of non-formal education, lifelong learning, and youth work.

SEAL Cyprus utilises a wide range of innovative interactive educational methods to provide open and distance learning, non-formal education, e-learning and on-the-job training while promoting entrepreneurship through youth work and the mental health of the young people in the era of social media.

YMCA George Williams College, UK

YMCA George Williams College is a charity based in the UK. Their vision is for a just and equitable society that invests in support for all young people to learn, grow, and explore their relationships with the world around them. This support is characterised by safe spaces, high quality socio-emotional skill development opportunities, and relationships with trusted adults. As part of its work, the College now hosts two centres of expertise: the Centre for Quality Practice, focusing on developing skilled practitioners who can deliver high quality youth provision, and the Centre for Youth Impact, which supports organisations to evidence their impact and continually improve their youth provision and offer to young people and communities.

3. Youth Work Principles and Practice

This section is an introduction and overview of youth work. This section will introduce you to the basic principles and practices associated with youth work, including participation, group work, communication, and managing challenging behaviours.

3.1 What is Youth Work?

Defining youth work has been one of the hardest things to do because of the breadth of practice involved. In any number of settings, be that a youth club, a school, indoors or out, and across all disciplines from charities and the voluntary sector, health, education, arts and sports and social care, youth work focuses on a young person's personal and social development. The purpose is not to 'fix a problem'; instead, it is an educational process that engages young people in a curriculum that deepens their understanding of themselves, their community, and the world in which they live

> ***Youth work offers young people safe spaces to explore their identity, experience decision-making, increase their confidence, develop inter-personal skills and think through the consequences of their actions. This leads to better informed choices, changes in activity and improved outcomes for young people.***
>
> (National Youth Agency 2020)

Thus, youth work aims to create learning opportunities for and with young people through personal and social development programmes, where young people can learn skills and build resilience that will support their transition into adulthood. Offering young people safe spaces, youth work allows them to explore their identity, experience decision-making, increase their confidence, develop inter-personal skills, and think through the consequences of their actions. This leads to better informed choices, changes in activity and improved outcomes for young people.

A holistic approach starts where the young people are at in terms of developmental or physical location, and the relationship between young people and a youth worker is entirely voluntary, meaning that it is primarily the young person's choice to engage with the professional.

3.2 Youth work values

A clear set of values underpins youth work:

- Young person-centred and led
- Based upon a strengths-based approach rather than a “deficit model”
- Builds upon strong relationships and respect
- Unconditional positive regard
- Recognises and acknowledges all views and opinions held by the young people involved
- Co-production and participation - staff, volunteers and young people work together in a genuine partnership to design and deliver the aims and objectives
- Celebrates equality and diversity

3.3 Youth Participation

Participation is one of the most important aspects of youth work and involves all children and young people in the decision-making processes in activities they engage in.

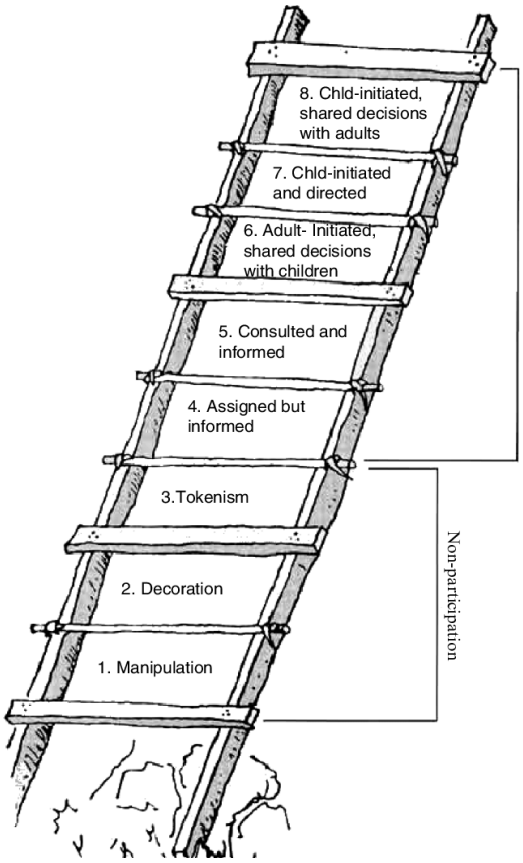
> ***Every young person has the right to express their views, feelings and wishes in all matters affecting them and to have their views considered and taken seriously.***
>
> Article 12, the UN Convention on the Rights of the Child.

Increasing their power and influence encourages them to take responsibility for their involvement. It also ensures that children and young people are afforded opportunities to be involved in decision-making processes on issues that affect them. This means:

- Taking on board their views and then acting upon them
- Recognising that children and young people are the experts of their own lived experience.
- Children and young people’s agendas are not necessarily the same as adults
- Processes should be put in place for them to express their ideas and opinions
- Acknowledging that children and young people participate in different ways
- Creating a learning environment that meets the needs of all.
- Not doing “to” but working “with
- Recognising that children and young people can be our greatest teacher.
- Being creative with activities that enables all young people to participate.

3.4 Hart's Ladder of Participation

Hart's *Ladder of Participation* (1992) is a model that illustrates and ranks young people's participation in an activity. Acknowledging that their participation can move up and/or down the ladder at any point in time, the ladder was designed to support people working with children and young people by exploring the nature and level of their participation. Involving eight steps and starting at the bottom of the ladder, these are:



1. **Manipulation:** Young people are led by adults, but they do not understand why decisions were made.
2. **Decoration**: Young people take part in an activity or an event. They may be wearing their uniform but do not really understand what they are doing and why. They are there to be seen.
3. **Tokenism:** Young people are consulted on issues, but none of their ideas are implemented.
4. **Assigned but informed:** Adults make the decisions about what will happen, but young people volunteer and are part of the process.
5. **Consulted and informed:** Adults decide on the project and run it, but young people are very involved, and their views are considered.
6. **Adult initiated, shared decisions with children:** Adults come up with the ideas, but they are shared with young people. Young people are involved in making decisions.
7. **Child initiated and directed:** Young people take the lead on many aspects of the activity, and their ideas are implemented. Young people may come to the adults for advice and support, and there is an atmosphere of partnership.
8. **Child initiated, shared decisions with adults:** Young people formulate the ideas, take the lead, plan, implement and evaluate the project/activity. Adults are on hand if young people need them.

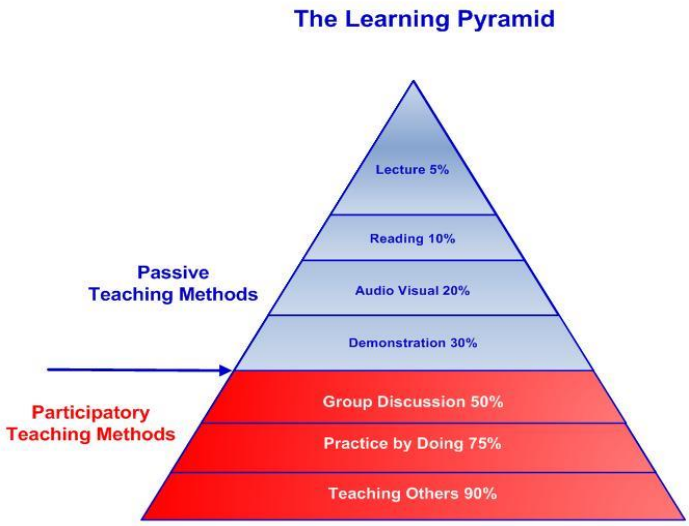
Potential Barriers

It is essential to be aware of the potential barriers and concerns you, the facilitator, may have regarding young people's participation. If you do, is it:

- a concern about the various health and safety issues you have identified?
- a worry about the amount of time it may take the young people to decide, and you have a set time to deliver your programme?
- do you like imparting knowledge and being in charge (and that's ok)?
- you do not feel confident in allowing young people to run activities?

3.5 The Learning Pyramid

It is essential to recognise that young people learn differently, as illustrated by the Learning Pyramid (The Peake Performance 2020). The top four tiers represent *passive teaching methods,* where people take in information imparted to them. There is a place for this, but as you can see, the bottom three tiers demonstrate that experiential learning is much more effective for most people.



3.6 Experiential Learning

Experiential learning - *the learner constructs knowledge, skills, and values through direct experience; learning by doing* (Bunting, 2006:5) – consists of a four-step process:

1. Experiencing an event that engages the young person through their participation
2. Reflecting upon and/or discussing the event that was engaged in
3. Generalising to consider the related meaning and how that meaning refers to areas of their life that are different to their immediate experience
4. Applying the learning to another situation (Bunting, 2006).

For those delivering the programme, the term *facilitator*, rather than *teacher*, is applied because a facilitator encourages an attitude of assistance, encouragement and coaching when working with those in the group. Using sequenced progressions that move from the simple to more complex ideas and situations to be conquered, they design conditions and/or experiences encouraging students to want to learn. Using questioning to create further interest and ignite curiosity by responding to a question with another question, a facilitator also knows how to use what appears to be a failure and success as learning opportunities (Bunting, 2006; Robb et al., 2015).

3.7 Communication

Effective communication is essential to create this positive learning space because it reassures the young people that they are being listened to, their views are valued, and puts people at ease while reassuring them they are in control of their lives. Zins et al. (2004) stated that

> ***Without successful communication ideas and feedback are immobile and stagnant, and the accurate identification and understanding of social cues, self-control, self-monitoring of one's behaviour and its impact on others, effective coping and the ability to distinguish between positive and negative peer influences is not possible.***

Thus, when we successfully communicate with others, we:

- Offer reassurance
- Provide information
- Give guidance
- Express feelings/concerns
- Form/build relationships
- Socialise/interact
- Ask questions
- Gain information
- Build self-esteem of all involved
- Provide support
- Enable choices
- Advocate for ourselves and others.

Brooker (2007) took this one step further and using the word *communicate* created the following acronym:

C o-operate
O pen your mind to other possibilities
M ake time to listen
M ean what you say
U nderstand others' feelings
N otice body language
I nvolve everyone in a group
C are about other people's feelings
A sk helpful questions
T hink about our behaviour
E xpress thoughts and feelings assertively

Methods of communication

It is essential to consider how we communicate. Following is a list of the various methods and modes of communication used today in the 21st century.

- Verbal/ words, how we speak – tone, pitch, volume, and vocabulary used
- Non-verbal – sign language; body language – facial expressions, gestures, eye contact, body positions, dress
- Written – letters, books, newspapers, text, etc.
- Electronic – email, data, pictures, television, movies, YouTube, etc.
- One-to-one interaction
- Group setting
- Formal and informal settings.

Communication barriers

Sometimes when we communicate, it is not as easy as we had hoped it would be. There could be any number of reasons for this, so there are several factors we must keep in mind that influence all our communication interactions. These include, but are not only, health/medical conditions (deaf, blind, throat infections/laryngitis, autism, etc.), speech conditions (stuttering, etc.), language/dialect barriers, terminology, acronyms, jargon, access to and understanding of technology, and numerous personal factors including one's culture, confidence, anxiety, attitudes to others, age, etc.

Barriers can be reduced or eliminated using several strategies and begins with not making any assumptions about how someone may communicate. Next is awareness of possible sensory, cognitive, language, environmental, social, cultural and proximity barriers.

Listening

Listening is an important communication skill that asks the listener to:

- Stop talking
- Remove all distractions
- Concentrate on what is being said by the person communicating
- Look interested
- Hear more than the words
- Check you have heard what was shared correctly
- Ask clarifying questions
- Be patient
- Be non-judgmental
- And… stop talking

By doing this, it demonstrates to the other person that:

- you are listening carefully
- you have understood the content and feelings of what has been spoken

- you can respond sensitively to ideas and statements that are shared.

To do that successfully, you can use:

- Prompters – i.e. words/sounds of uh ha; mmm; go on; yeah, I see; and then?
- Reflectors – So you feel...? Were you feeling …? It must have been upsetting/pleasing/disappointing; It sounds like you were excited/hurt/sad/etc. when…

You can also use open and closed questions because good questioning is essential for gaining the information you are after and creating an environment that encourages experiential learning.

Closed questions are useful for gaining facts because people give a YES or NO answer and begin with the words:

IS/ WAS/ CAN/ DID/ WILL/ COULD/ HAVE/ DO/ WOULD/ ARE

Open questions are good for when you require MORE information and provide the other person with the opportunity to expand their ideas and stories, and begin with words such as:

WHAT/ WHERE/ WHEN/ WHY/ WHICH/ WHO/ HOW

3.8 Group work

Most of the youth work in this programme is delivered in groups, and there are many benefits to this:

- Young people are encouraged to engage actively in the task rather than being mere passive recipients of information
- Young people learn to collaborate, which is a lifelong learning skill
- Everyone learns from each other through the sharing of thoughts and ideas
- When managed well, it can be fun as well as informative
- It provides a good training ground for later life.

In 1965, Bruce Tuckman developed the following four stages he believed were imperative for groups if they were to function correctly.

Stage 1: Forming

The *forming* stage occurs when a group first meets. Sharing information about themselves (e.g. backgrounds, interests and experience), they form their first impressions about each other and the project they will be working on. Dependent upon the leader, it is imperative that the youth worker is clear about the end goals, provides clear direction regarding the project, and involves every group member when determining the various roles, responsibilities, or *team norms*.

Stage 2: Storming

As the team begins to work together, they move into the *storming* stage. Present in every group, the team members compete for status and the acceptance of their ideas and opinions about what and how things should be done. Often causing conflict within the group, with the leader's help, the group can progress through this stage by learning how to solve problems together, function independently and together as a team, and settle into their various roles and responsibilities.

The youth worker needs to be adept at facilitating the team through this stage, helping the members to listen to each other and respect their differences and ideas. This includes ensuring that no single team member monopolises the conversation by facilitating contributions from all team members. Some team members will need help to be assertive, while others will need to learn to be more effective listeners. This is a difficult stage for those who do not like conflict

Stage 2 concludes when the team becomes more accepting of each other and can work together for the good of the project. At this point, the team leader should start transitioning some decision-making to the team to allow them more independence but still stay involved to resolve any conflicts as quickly as possible.

Be aware that some teams never move beyond this stage, resulting in the entire time being spent in conflict. The result is low morale and motivation for all involved.

Stage 3: Norming

The third phase Tucker identified is known as *norming* and sees the group no longer focused on their individual goals, respect each other's opinions and value their differences because they can see the value in those differences. Trusting each other, they work toward a common goal which means significant progress on the project as they begin working together more effectively.

In this stage, the youth worker may not be as involved in the decision-making because the group works together. Possessing greater self-direction, the group can resolve issues and conflict as a group, although occasionally, the youth worker may need to step in to move things along if the team gets stuck.

Stage 4: Performing

The final stage - *performing* – sees groups focused on the end goal and functioning at a very high level. Highly motivated to get the job done, they know, trust, and rely on each other to make decisions and problem solve quickly and effectively, working through any disagreements to come to a consensus without interrupting the project's progress. Changes in team processes are also negotiated successfully.

The youth worker is not involved in any decision-making, problem-solving or other activities involving the day-to-day work of the group because they do not need the oversight required at the different stages. Instead, s/he monitors the group's progress and celebrates the milestones with the group, serving as the gateway when decisions need to be reached at a higher level within the organisation.

It is essential to realise that not every group makes it to this level of growth; some teams stop at Stage 3: Norming, while others never get past storming. Some groups revert to another stage if one of the members starts working independently, and if a new member joins, then the group will likely revert to the *forming* stage **(**Athlete Assessments 2019).

4. Bushcraft

Following is information related to all areas of bushcraft the team at EBGC sees as essential components for the BYT eToolkit. You can read these sequentially or dip them in and out as necessary.

> **We like to show young people how to look after themselves first, then others, and then the environment.**

4.1 Survival

Are survival skills something we need to employ every day in our normal lives? Having a set of valuable outdoor skills can make people feel more confident and less likely to panic should an emergency occur.

A survival situation is a sudden unplanned event where you are at risk of harm. Learning to deal with sudden change helps young people adapt to their surroundings quickly and confidently and creates emotional resilience that gives young people the tools they need to deal with life's ups and downs calmly. It also makes young people more observant and less likely to find themselves in a survival situation. It could be as simple as planning their day by checking the weather and deciding to take a coat to school.

We like to show young people how to look after themselves first, then others and then the environment. If they are cold and wet, they will not be able to help anyone else.

STOP!

This acronym can help you think rationally and make better decisions in an unexpected situation. If you say to the group, "We are lost! How did we get Lost?" "What are we going to do about it?" Ask the young people who will explain everything from making a wrong turn to a plane crash or an alien abduction.

There are lots of options, which can cause panic and arguments., but how well do you make decisions when panicking?

In the event of getting lost, **STOP** and stand still. This will stop you from becoming more lost if such a thing happens.

THINK, how did I get lost? Who knows I'm here? What resources do I have?

OPTIONS - list as many options as you and your team can think of and decide on the best course of action that fits the situation.

PLAN - the best option will become your plan as the group decides. If the plan fails, you have a list of other options to fall back on. It makes the group feel included in the decision and helps people stay calm.

 Video: STOP! (2.44 mins)

The Rule of 3's

Description: In this video, we talk about the Rule of 3's, what we need to prioritize in a survival situation, and how these rules can relate to our everyday life. This can be a very good start to a survival session such as shelter building.

Where: Anywhere you can talk in a group.

Who: 8+

Safety: N/A

Kit List: A list to hand of the rule of 3's with brief explanations as a reminder.

Learning outcomes: The young people will understand the priorities when in a survival situation or camping out.

 Video: The Rule of 3's (8.08 mins)

A simple way to emphasise priorities outdoors is:

3 minutes without Oxygen

3 hours without shelter

3 days without water

3 weeks without food

3 months without company.

 **3 minutes without Oxygen**

We are not drowning, but it helps you understand the thinking of the Rule of 3s

3 hours without shelter.

If you walk in a t-shirt, shorts, and flip-flops in the desert, you have about 3 hours before you become too hot or dehydrated. If you are in your shorts and tee shirt and walking in the snow, you will also have about 3 hours to survive. In both scenarios, you will need to find shelter from the elements.

Your clothes are the first type of shelter available to you, followed by natural features such as trees, rocks, and caves, then building a debris shelter from sticks, stones etc. Next, we consider tarpaulins and tents before the obvious day-to-day shelter of houses and buildings.

3 days without water

Overall, your body is 60% water, your heart, brain, and lungs are closer to 80% water, and when you are dehydrated, these, the most critical areas of your body, are affected first.

Your blood will thicken, and you have trouble getting through the small capillaries in your brain, causing headaches, blurred vision, and dizziness

Your lungs will struggle to get oxygen into the thicker blood making physical activity very difficult

Your heart will pound, trying to keep the thicker blood moving.

In three days, you will be incapacitated as your organs shut down.

3 weeks without food

If you have good shelter and a clean water source, you can survive for up to 3 weeks without food, so it is lower down the priorities than most people think. You will feel incredibly weak and dizzy with very little energy

3 months without company

Can you imagine “the crazy old cat lady who lives on your street, no one talks to her because she is a bit weird”? Is she a bit weird because she never talks to anyone?

Humans are social animals, and we like to have company and people around to talk to. After 3 months of solitude in a survival situation, you will become very depressed and lonely, thinking no one is coming to rescue you. You may also start to act strange. The pressure of maintaining your shelter, finding water, hunting, looking, and waiting for rescue, and lying awake listening for wild

animals in helicopters will eventually take its toll, and you will start to cut corners and make mistakes.

You can add 3 seconds without WIFI to get a laugh from young people

The 5 Hs: hydration, hyperthermia, hypothermia, hypothalamus, hyponatremia

Description: This video teaches about the 5 H's of survival: Hypothermia, Hyperthermia, Hydration, Hyponatremia, and Hypothalamus. It explains each in more detail and how important it is to our survival in an emergency and our day-to-day life.
Where: Anywhere you can talk to a group.
Who: 11+
Safety: N/A
Kit List: A list of the 5 H's and a brief explanation of them as a reminder when explaining it to the young people.
Learning outcomes: The young people will better understand the human body and how it functions and reacts when put in a survival situation, or how these rules can apply to everyday life to remind us of our self-care.

 Video – the 5 H's (6.12 mins)

Self-care is incredibly important outdoors. Question: If you don't look after yourself, you cannot help anyone else, and then you become a burden to the group, would they leave you behind?

Hyperthermia: your body is getting too hot and cannot lose the heat quickly enough. This will cause blurred vision, fainting, muscle cramps, sunburn, extreme sweating, and brain damage; you need to seek shade and cool as soon as possible.

Hypothermia: your body is losing more heat than it can produce. This will cause loss of movement in hands and feet, pain in hands, shivering, frostbite, and nerve damage. You need to warm up as soon as possible, or your body will shut down, and you will be unable to move.

Hypothalamus: the area of the brain that regulates your body temperature. If you get too hot or too cold, you could reset your brain, making you very sensitive to hot or cold for the rest of your life.

Hydration: Dehydration is when your body loses more water than it is taking in. Your blood starts to thicken and causes a massive headache, pain, and blurred vision, making you uncoordinated as your muscles begin to cramp, and finally, your organs start to shut down. Your body is 60% water; however, your brain, heart and lungs are nearer to 80%, and they will also be the first affected if you become dehydrated.

Hyponatremia: this occurs when the concentration of sodium in your blood is abnormally low. Sodium is an electrolyte and helps regulate the amount of water that's in and around your cells. Signs and symptoms may include nausea and vomiting, headache, confusion, energy loss, drowsiness and fatigue, restlessness and irritability, muscle weakness, spasms or cramps, seizures, or even a coma.

The 5 C's: cutting, combustion, cover, container, cordage

Video – The Five C's (3.12 mins)

The minimum equipment you need is the 5 c's of survival.

Cutting: the cutting tool you carry should, at a minimum, be able to complete any and all tasks in the event of a total equipment failure. This is needed from any tool you choose. A tool for this task should not be too large as you may need it for fine carving or food preparation. To that end, it's recommended to have a 5 or 6" blade on a full tang knife. You could have a small hand axe instead if you are skilled in using it for delicate jobs. Many people today seem to carry Multi-tools or Pocket knives as a standard emergency tool. These are great as an extra tool as they are helpful for many things. However, they should never be your first or only choice in this category as they are not large or strong enough to be the one tool you trust in your life in a survival situation.

Combustion: The most important thing needed from an emergency combustion device is SUREFIRE! A Ferrocerium rod will work wet or dry and produces a sure flame for several minutes to aid in the ignition marginal tinder sources like semi-green vegetation or damp shavings and barks.

Cover items (for this purpose) should be light and compact but multi-purpose. Ideally carry at least a poly tarp of 8x10 along with an emergency re-usable space blanket. This small roll will give you tons of versatility and adaptability at a minimal cost. Other uses for these items include rain catchments, sleeping bags, ground coverings, rain gear, and signalling (if the tarp has an orange side). This piece of equipment can be very beneficial for short-term survivability and rescue.

Container is one of the most valuable pieces of gear you will ever use. Without water, we cannot survive for extended periods. For this reason, we must ensure this container can accomplish several tasks very well. It must be watertight, capable of being placed into the fire for water disinfection and cooking if necessary. It also should be constructed of thick-wall materials to withstand shock from being dropped and banged around.

Cordage is something that is a must-have, due to its countless uses, and it can be very time-consuming and challenging to make in a survival or self-reliance situation. Always ensure that any cordage is multi-ply so that it can be broken down to smaller fibres if needed. 3-ply cordage is very strong and can be purchased up to 340 lbs breaking strength. It takes up less room, weighs less than paracord, and is more functional for things needed in a *survival* scenario like trapping, fishing, and lashings. It is an excellent material for small game snares and traps and is also dark-coloured (usually black), which adds to its camouflage abilities when used for fishing and hunting. It also stretches less than paracord, so lashings and bindings on tools and shelters do not loosen over time. Along with its variety of other uses, it costs around half as much as paracord and does not add any more weight. All around, it's considered a first cordage choice.
Understanding these five items and their extensive uses is the first step to understanding what it takes to reduce the size and weight of your kit and effectively maintain true survivability. Even more important to understand is the skill and ability to replace these items using natural material when needed, as that is the accurate measure of your skills.

4.2 Fire

Fire is singularly the most important thing humanity has ever done! Not only does it separate us from the animals, but it has aided our evolution into modern humans.

What does a lion on the plains of Africa do after he eats a Zebra? He sleeps because the meat is hard to digest and breaks down to proteins. Therefore, meat-eating animals sleep for three-quarters of their lives.

Protein is vital for growth and development; every cell in the body contains protein. Other protein sources, such as nuts, beans, and soy, were the easiest for early man to acquire after meat.
Once we figured out we could cook meat using our newly acquired fire skills, we realised it was safer to eat and store and tasted better. We probably didn't know that cooking meat breaks down tough fibres and connective tissue, making it easier to chew and digest and leading to better nutrient absorption. Suddenly, we were sleeping less and digesting our meals in less time. The benefits were two-fold; not only did we have massive amounts of protein in our system helping to grow and maintain our bigger brain and give us stronger muscles. Sleeping less opened more time in the day for better hunting skills; communication and language, and learning come with better hunting. Learning leads to social skills and civilisation.

Uses of fire

Fire for warmth

If you are living in any type of wilderness shelter, you will need to keep yourself warm. Hypothermia (severe body cooling) can be an issue, even when the ambient temperature is relatively high. Being wet or having damp clothing can severely restrict the body's ability to keep warm. A fire burning means you can stay dry and warm, so your body does not have to use precious energy to maintain body temperature.

Fire for water purification

When in the wild, treating all water sources as contaminated is always best. Unless you collect rainwater as it falls, all groundwater should be treated before consumption. Even though a body of water may look clean, it may still contain parasites, viruses, bacteria, or chemical contaminants, making a person very sick and potentially fatal. The simple act of boiling water (let it reach a rolling boil) will kill and render all bacteria and viruses harmless. It is a little harder to remove all chemical contaminants, although possible. Untreated water can be passed through a charcoal filter, which will remove many chemical pollutants; luckily, a charcoal filter can be fashioned in the field.

Fire for cooking

Fire can be used to make many inedible foods edible. Cooking meats thoroughly will destroy parasites and bacteria that could make a person very sick. Not a situation you want when hundreds of miles away from a hospital. Fire can also be used to help preserve food long-term.

Fire for tool making

Wooden tools can be hardened by exposing them to heat, which removes moisture from the wood and causes internal sap to crystallise and harden. This is a form of almost instant wood seasoning. Spear tips, arrowheads, ground pegs, and more can be treated with this technique.

Fire for protection

Keeping a fire lit in camp performs several essential functions in this respect. Large predators and small biting insects are all wary of smoke and fire and having a smoky fire burning helps to mask a human's presence from these insects. If they can't find you, they can't bite you.

Fire for light

The night is long and full of unknowns. Just because night has fallen does not mean the working day has ended. Light after nightfall allows you to finish tasks or even start new ones. This cannot be overlooked in long-term wilderness survival. Many animals are nocturnal and need to be hunted at night. Equally, predators that hunt at night must be seen and defended against.

Making medicines

To get at the active ingredients of some plants, extractions need to be made through heating or "cooking". Other beneficial extractions such as pitch pine glue or char cloth can only be produced through actively heating the raw ingredients.

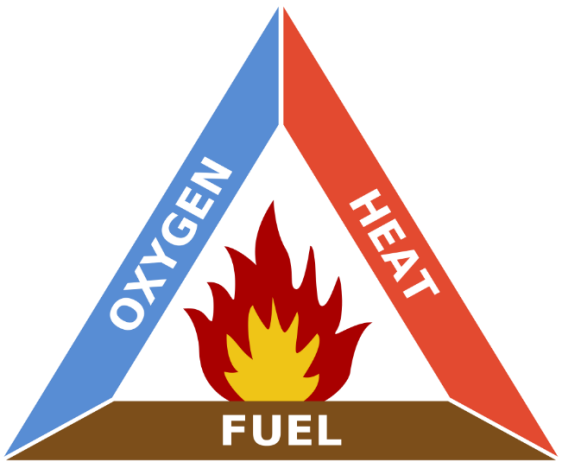
Fire to attract rescue

Often an overlooked use of fire. Three fires in a row (three of anything such as flags, stones, logs etc.) is an internationally recognised distress symbol. Build your fire in a prominent position (on a hillside, mountainside, or large exposed bay). Have three smaller fires ready (light these from the primary fire). The smaller fires should consist of lots of dry material covered in green vegetation. Green vegetation produces large volumes of white smoke visible from long distances (not ideal for snow-laden conditions). The dry material should catch instantly and provide natural heat for the fire. Burning rubber produces large plumes of black smoke (better for snowy conditions).

Starting a fire

Fire lighting is all about the preparation - put the work in upfront, and you'll get a sustainable fire; take shortcuts, and you probably won't. Remember, get any fuel hot enough with oxygen, and it will burn.

The main strategy for successful fire lighting is remembering the fire triangle as set out below. If you remove 1 of the 3, the fire will go out!



Spend time collecting your materials, and when you think you have enough, collect more because inexperienced fire makers will inevitably not collect enough materials at the first attempt.
You need time to prepare your fire. Once the fire is lit, you must be ready to add materials to sustain the fire, so gather all you need first.

A failed fire is caused by:

- Not getting the fuel hot enough

- Smothering - the fire that lacks oxygen
- Very cold or windy weather
- Contaminated wet fuel or a wet, cold ground
- Not enough fuel

All fire lighting techniques are sources of heat, friction, solar, spark, chemical, compression etc.

Assessing an area for a fire

- Do we need to light a fire? If you are doing a fire lighting demonstration, this could be done in steel trays and quickly extinguished to reduce risk.
- Consider the landowner. Have you got permission to light a fire on the property?
- The fire should never be bigger than you need, so always keep fires as small as possible for the task they are being used for.
- Be mindful of the time of year and the weather. Very hot, dry spells may cause the fire to spread uncontrollably, and wet or cold conditions make it difficult to light fires and produce much more smoke.
- The area needs to be as flat as possible with no trip hazards near the fire. All flammable debris and equipment must be moved at least 3 meters from the fire.

It is essential to prepare your site to prevent the fire's spreading potential. To do this, remove any leaf litter or mulch until the bare ground is exposed, an area three or four times the size of the intended fire. This is especially important in coniferous woods where there are likely to be flammable needles on the ground. And avoid lighting fires on peat for the same reasons.
When working with groups, it is often more efficient to dig pits for fires, as this keeps the fire contained, and if it starts to burn too vigorously, it can easily be covered with dirt which will starve the fire of oxygen and ensure it goes out. Avoid collecting wet materials as they create more smoke (unless a signal fire). Also, collect materials of various sizes - normally two handfuls of each, ranging from matchstick-thin wood, similar quantities of pencil-sized, thumb-sized and then a couple of other groups getting bigger each time. Young people will often focus on the larger sticks. Still, it is essential to emphasise that the tinder and matchstick-sized twigs will determine your fire's sustainability, as, without them, you won't be able to light the larger materials. A filled-in fire pit also helps to leave no trace afterwards.

Pine woodland is a poor choice for having a fire as pine wood tends to spark, and pine needles on the floor are flammable. You can also start an underground fire where the woodland floor debris is thick. To reduce the risks, try and build your fire near a natural water source or take lots of water with you. Clear at least a 3-meter circle of floor debris from the centre of the fire. Leave the debris and rake back over and leave no trace when you finish. Dig a hole for the fire so it can be "stirred" to remove the heat "watered", so make sure it is all out and cold, then "bury" the fire to remove the oxygen to make sure.

Fire Safety

Fire lighting can be used as a reward for good behaviour. This way the young people realise they have gained your trust and are now seen as reliable to do more complicated tasks. If you have a group, you do not trust, do not do fire lighting with them.

- Young people need to wear non-flammable, non-baggy clothing and closed-toed shoes.
- Anyone with long hair will need to tie it back
- No more than two people at a time. e.g., cooking marshmallows
- Never lean directly over the fire
- Don't sit breathing in smoke. If it happens, move out of the way. Until the fire heats up and the smoke clears.
- Keep water on hand in case of burning.

Sources of Heat for starting fires

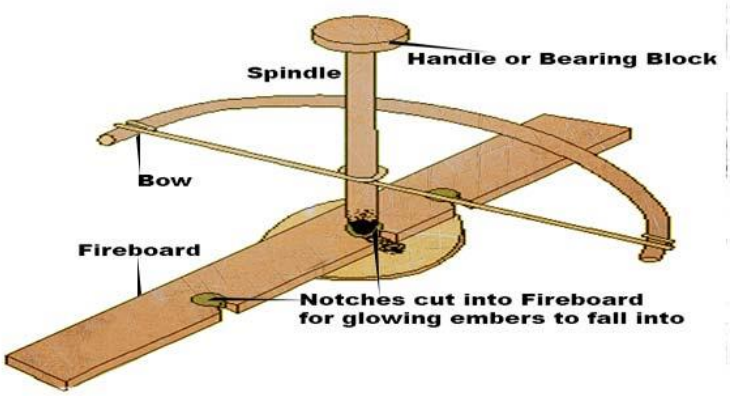
Friction is rubbing wood or bamboo together to create heat, which eventually makes a hot pile of black dust. With a little more effort, it can produce an ember. The ember will be on top of a pile of dust, so you must give it time to merge into coal. The ember can then be moved into a bird's nest of dry grass and gently blown into a flame.
The best woods for this usually grow near rivers, willow, lime, hazel, birch, Ivy, and Alder. Try to avoid hardwoods such as oak, as they take a lot longer to produce heat.

Bow drill

There are many methods of starting a fire with friction; the bow drill is the most efficient at maintaining the speed and pressure needed to produce coal and one of the easiest to master. Combining the right fireboard and spindle is the key to success, so experiment with different dry

softwoods until you find a successful set. Remember that the drill must be as hard or slightly harder than the fireboard.

- Step One: Cut a notch at the edge of a round impression board into the fireboard, as you would for a hand drill. Loosely affix the string to a stick bow, which can be any stout wood.
- Step Two: Place the end of a wood drill, the diameter of your thumb, into the round impression. Bear down on it with a socket (a wood block or stone with a hollow ground), catch the drill in a loop of the bowstring, and then vigorously saw back and forth until the friction of the spinning drill produces a coal.
- Step Three: Drop the glowing coal into a bird's nest of fine tinder, lift the nest in your cupped hands, and lightly blow until it catches fire.



Video – Friction fire from scratch (5.02 mins)

Video – Friction fire Cyprus (9.28 mins)

Video – Using MDF friction fire (6.58 mins)

Flint and Steel

Striking the softer steel against the harder flint produces sparks to flame your fire. The curved steel striker provided with flint and steel kits is the easiest to use, although, with some practice, you can produce sparks by using the back of a carbon-steel knife blade.

- Step One: Grasp a sharp flint or quartz between your thumb and forefinger with a sharp edge protruding an inch or two.
- Step Two: Tightly clamp a piece of your homemade char cloth or a lump of birch tinder fungus under the thumb holding the piece of flint. Grasping the back of the striker, knife blade, or file in your other hand, strike a glancing blow against the edge of flint using a quick wrist motion. If you're using an axe, hold the head still and sharply strike the flint near the blade, where the steel is harder. Molten sparks from the steel will fly off and eventually be caught by an edge of the char cloth, causing it to glow.
- Step Three: Carefully fold the cloth into a tinder nest and gently blow on it until it catches flame.

 Video – Flint and Steel (1.07 mins)

Ferro Rod

The Ferro Rod is like a modern version of the Flint and Steel. Also known as a ferrocerium rod or fire rod, it utilises a mixture of metals known as Lanthanides and iron, which creates an intense shower of sparks when struck by the striker. The advantage of this method is when you scrape material from the rod shavings flame briefly at an extremely high temperature, eliminating the need for char cloth or tinder fungus. However, if you have access to char cloth or tinder fungus, then the efficacy of this method is significantly increased. A ferrocerium rod also produces a spark in any weather condition.

It is popular in many outdoor circles to use a knife to strike the Ferro Rod, but it is best avoided as waving a knife around could cause damage to you or the knife. If you have no other option, only use the back of the knife, not the delicate cutting edge.

- Step One: Using a striker, hold it to the rod at a 30-degree angle to scrape material from the rod
- Step Two: Strike the rod towards the tinder pile.
- Step Three: When the tinder starts to burn, gently add a bunch of small matchstick thickness dry twigs until it bursts into flames.

 Video – Ferro Rods (4.53 mins)

Fire piston

A fire piston utilises compression to create an ember in much the same way a diesel engine works. You can now buy purpose-made tools; however, there are ancient examples of this method that use hardwood, bamboo, or even horn for the tube.
When the air is compressed in a fire piston, it is done so quickly and efficiently that it can reach a temperature above 800°F. This is hot enough to ignite the tinder placed at the end of the piston that has been hollowed out to accept it. Equal attention must be paid to the gasket in a piston, as this ensures a proper seal to create the compression.

- Step One: Place a small amount of tinder into the tinder cup at the tip of the piston.
- Step Two: Make sure there is a good seal from the gasket by smearing petroleum jelly, then push the piston 1 cm into the piston barrel.
- Step Three: Firmly strike the piston and barrel together in your hands or by pressing hard and fast onto a piece of wood. The rapid compression should cause the tinder to ignite. Do not hold it too long after striking, as you may starve the tinder of oxygen.

Following are some different methods of starting a fire:

Video – Rudiger Fire roll friction fire (2.50 mins)
Video – Chemical Fire (3.41 mins)

Collecting sticks for a fire

- Split the group into groups of 3 to 4 people and dig several fire pits in a line
- Explain to the group we only need two types of sticks - matchstick thickness and pencil thickness, which are then put in two piles next to their fire pit.
- When collecting sticks, warn them of nettles, thorns, prickles and any poisonous plant in the area (e.g. Foxglove).
- Give the young people a defined area to forage for sticks so they can't get lost.
- Give the group time to explore the area and gather sticks (c. 10 minutes). Then call them all back to the fire area
- Only collect snappy sticks; do not break living sticks from trees.
- Once they return, assess their sticks, and remove anything too big as it will burn for too long for most fire lighting sessions.

Starting a fire

1. Once everyone is back and calm, choose the group the furthest downwind or the ones who have found the best sticks.
2. Invite the whole group over to watch the demonstration
3. Build a small raft in the bottom of the hole with a few thicker sticks. This is to raise the fire off the ground that could be cold or wet; it also allows more oxygen into the base of the fire.
4. Ask a young person to tear up cotton wool and add Vaseline to make it burn longer.
5. Ask another young person to pick up the matchstick thickness sticks like a bunch of flowers holding the end of the sticks. As soon as the cotton wool is lit, they must keep their hand close to the ground and their face back from the fire and gently hold the sticks over the flame and then gently let go
6. Choose another young person to do the same with the pencil size sticks.
7. Once the sticks are ready, choose a young person to light the fire with the Ferro rod.
8. When the fire is lit, you can move on to helping the other groups light their fires while keeping an eye on the other fires as you work along the line
9. Before the end of the session, ask them not to add any more sticks
10. This is a good opportunity to play the “Jacks Alite game“ (p48) while their fires reduce in heat.

Putting out the fires

This can be a little traumatic for some if the staff put out their fires,

Return to the fire triangle theory:

- Can we take away the fuel to put the fire out? No, the sticks are on fire
- Can we take away the oxygen? Yes, we can bury it (when finished with the area)
- Pour water on it? This will make a large ball of steam and hit you in the face. Water will also make the ground wet, making more fire lighting very difficult for other groups
- Take the heat away? The preferred method is to get a long meter stick and gently stir the fire, which will immediately start to smoke as it tries to breathe. Don’t flick the fire around; gently stir until there is no smoke or embers. You can then sprinkle a little water on and stir that in too.

Group Management

Bushcraft is a relaxing activity where young people have an element of freedom. Because of this, you cannot be too aggressive. Make sure the group know the rules, and they know the parameters of the area

- Start with a safety brief before taking a group to the woodland for the first time.
- What's the most dangerous animal in the woodland? It's rabbits because they dig holes. You can trip over or twist an ankle, so please be careful— no running in the woods because of roots, holes, and uneven ground.
- Low branches and thorns and prickles means keep to the paths and safe areas.

Anyone who breaks the safety rules should be asked to sit out the rest of the session.

Standard fire pit

A standard fire pit is a 20cm deep hole x 30cm across in the soil, with the soil stack next to it so it can be backfilled quickly in an emergency. It also keeps the fire contained and small.
It is especially helpful on grass fields: cut out a circle of turf and replace it afterwards, so your fire looks like no one has been there. Very useful in areas when there is no woodland.

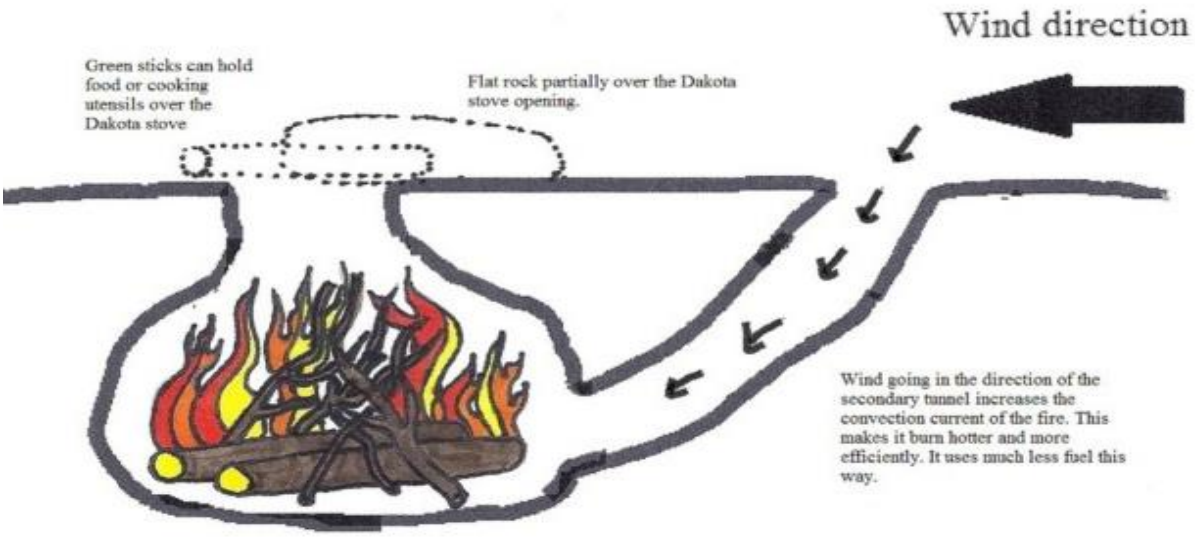
Dakota fire pit

A Dakota Fire Pit is an underground fire that is ideal for heat, stealth camping, and high winds because the fire is underground, and the flame doesn't have contact with the cold air, so the ground acts as insulation for the fire, making it hotter than a normal one. Nor is it visible from ground level, so it is hard to be seen from a distance and a great option if you don't want others to see the flame. Because the fire is underground, there is not as much oxygen for the combustion process; a second hole connects to the central fire hole and is used as an oxygen supplier to the flame.
Find a good location - any flat surface – then clear the area of vegetation and debris such as weeds, dead leaves, and rocks.
The size and depth of the hole depends on how big you want your fire to be. A deeper hole will let less light be visible from the surface, and the flame will be more contained. A wider hole means you can make a bigger fire. Once you have made your decision, start digging!

When you have finished making the main hole that the fire will be in, dig a second hole to supply the fire with oxygen. The second hole should be approximately a foot away from the fire hole and doesn't have to be as big as the first hole. If you dig the hole at an angle, it will be easier to connect the holes later because you will have a better position for digging the connection tunnel.

Once you have dug both holes, it is time to connect them. Kneel on the ground for a better digging position. This will be how the oxygen will reach the flame, so make sure it is the proper size, or your fire will not be adequately fuelled. The connection hole should be about as big as your fist.

Starting a fire in the Dakota Fire Pit follows the same principles of fire building as the 'V' Lay. Gather kindling and other small dry materials to build a fire. Soon you will be able to progress to larger sticks which burn slower.



V-Lay

Start by placing a layer of sticks on the ground parallel with the direction of the wind. The primary purpose of this 'raft' of sticks is to protect the fledgling fire from any moisture in the ground. You can also get oxygen into the fire from underneath by lining it up with the wind.
On top of this raft of sticks, build a simple 'V' shape (hence the name) out of other sticks. This should be built so that the wind blows into the 'V' because the 'V' isn't there to act as a

windbreaker; instead, its purpose is to increase oxygen flow into the fuel. With that said, even on a windless day, this happens for two reasons:

- Fires like to burn up. The 'V' gives the fire added height.
- These things are habit forming. I always light my fires this way because it works.

Next, put your tinder into the apex of the 'V' and light it, using any of the above methods. Place in the 'V' lit, or light within the V, depending on the method used.
Place the two bunches of thick matchstick twigs over the burning tinder in the same 'V' shape as the fire. Once the matchstick-thick twigs are ablaze, add the pencil-thick twigs, and when alight, add the next layer of fuel and so on.

Signal fire

Once your fire is lit, the best signal fire produces a lot of smoke, which can be done by putting wet/ green materials on the fire (e.g. leaves, grass, etc.). Be careful not to cover the fire and put it out.

Upside down fire

Used for large fires you would like to burn for a long time that doesn't need continuous feeding. Stack bigger logs at the bottom of the fire and smaller sticks on the top, then light a small fire on top. The embers will fall into the fire, heating it, and the logs below will start to burn

4.3 Shelter

Shelter is an essential part of survival and often a fun activity to explore with young people. Essential for keeping warm, they can be created in various ways, including debris shelters, a-frame or lean-to shelters, and tarp shelters. It is a helpful way to get young people thinking about their environment, and some critical things to flag with them include:

The location of your shelter - stop and think about it before building
The wind blowing direction should be considered so the shelter does not sail away.
The ground should be comfortable enough if you plan to get some sleep. Pointy rocks will keep you awake.
The ground should slope slightly for the water to runoff.
If there is no slope, dig trenches around the shelter to aid drainage.
Consider the purpose of the shelter and make it as large as it needs to be.
Consider the weather and choose a stable model that won't collapse if rain or snow are expected.
Remember, your body runs at 37c even in the summer. An overnight stay in the woods could see temperatures drop to 10oc, and within three hours, you will be showing the first signs of hypothermia
Water is also a great conductor of heat, so shelter keeps us warm and dry.

 VIDEO – Shelter Build Cyprus (includes a large section about knots) (6.38 mins)

Clothing

Choosing effective outdoor clothing is very important for retaining heat or keeping out water.

Cotton is best avoided as it can soak up 27 times its weight, which is great for towels, but if you wear cotton clothes like jeans or hoodies, they will stay wet; your body will have to warm up the clothing before it can heat itself. However, it is relatively fire resistant and will only smoulder when burnt.

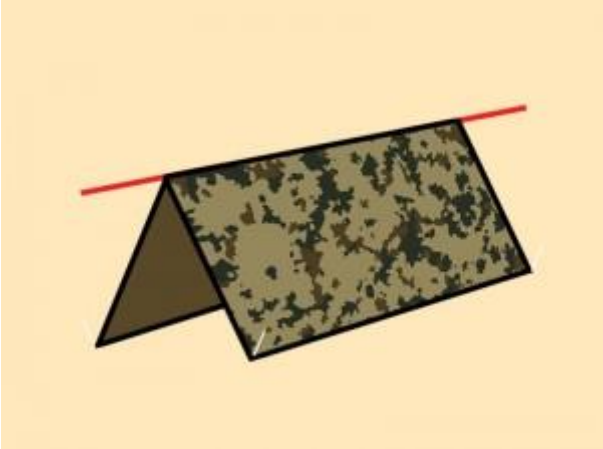
Synthetic materials like polyester, nylon, acrylic, and Lycra are fantastic for drying quickly and wicking sweat away from your body. Unfortunately, synthetic materials are all plastic based. So not great around a campfire.

Wool is an ideal material. Not only is it natural, but it is also fire resistant. Anti-microbial and It is an inferior conductor of heat, so it will not draw heat from your body. It can also actually generate its heat. When a wool garment gets wet, the water is adsorbed, meaning it gets trapped in the wool's porous fibres. Inside the fibres, the hydrogen bonds in the water break down. This creates a chemical reaction that produces heat.

Tarpaulin Shelters

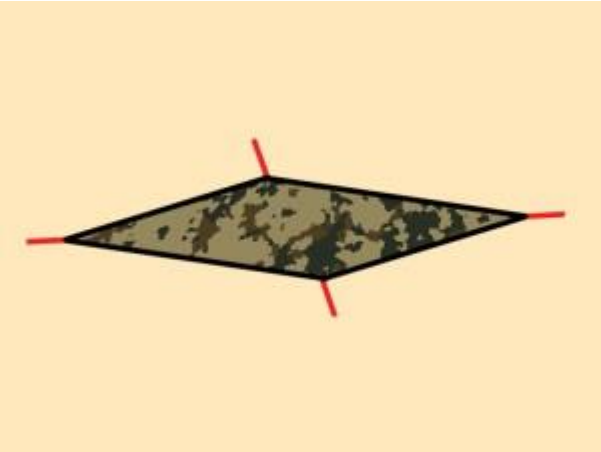
There is a range of tarpaulin shelters that can be built. This list increases in complexity.

1. The A-frame Tarp Shelter



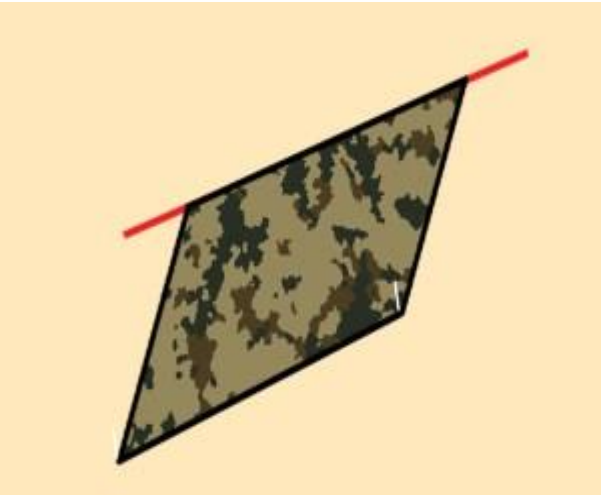
The A-Frame shelter is probably the most common shelter one can make. It can be made by stringing the paracord between two trees. Draping over the tarp and staking it down are the final steps required to make this common shelter. The 30-degree angle of the tarp's roof will create a ten-foot-long living area. The shelter will be 8.6 feet wide and 2.5 feet tall. This shelter provides good rain and snow runoff and a good wind deflection. The downside of the A-frame shelter is that there is no floor; if you haven't stretchered the paracord tight enough, there will be sagging in the middle.

2. The Sunshade Tarp Shelter



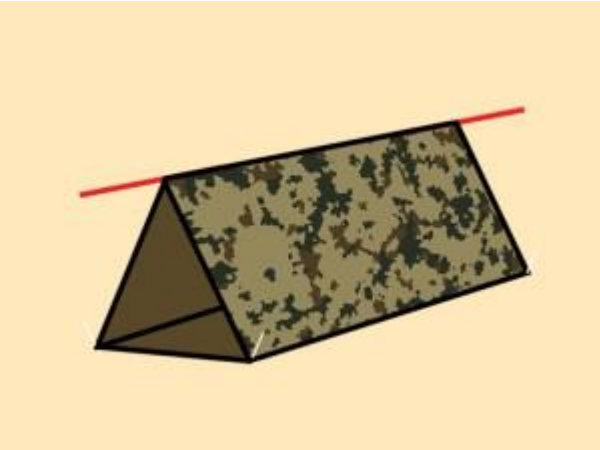
To create this shelter, you will need four anchoring points to tie the paracord. This shelter is parallel to the ground and is designed to provide 100 square feet of shade against the sun. Some people use this type of shelter during the rain because the water will pool in the middle, and it's easier to collect. To make it sturdier, you can add support poles to the corners. This basic sunshade tarp shelter will provide maximum protection against the sun, but it's not suitable for cold weather and can't support rain for long.

3. The Lean-To Tarp Shelter



Another simple shelter to make and great for deflecting wind or providing sunshade. To make this shelter, you need to secure the tarp to the ground on the windward side and support it with the paracord between anchor points. A 30-degree angle of the tarp will provide five feet of height and 8 feet of width under the shelter. This is an "on-the-go" shelter because it's easy to erect, and you can quickly take it down. It provides excellent wind deflection and keeps you safe from rain or sun heat. The downside of this shelter is that there are no sides and no floor to protect against other elements.

4. The Tube Tent Tarp Shelter

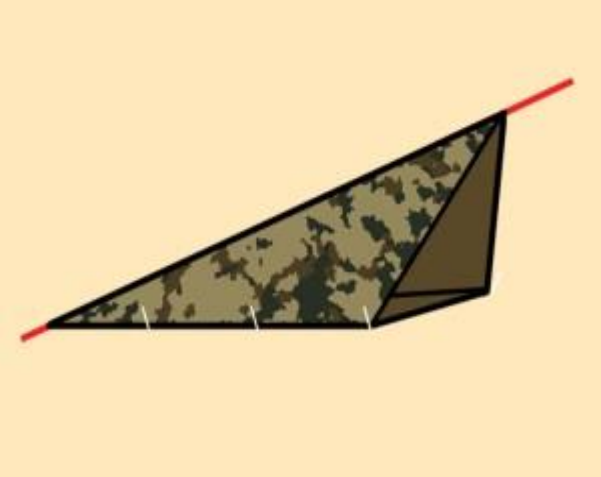


This sturdy shelter provides a floor and, if properly secured to the ground, will prevent rain from seeping in. To make it, you will need to secure the paracord between the trees and drape over the tarp with the opposite ends. The sixty degrees walls will provide 3 feet of width and almost 3 feet of headroom. This should be enough room for a single adult.

5. The Mushroom Fly Tarp Shelter

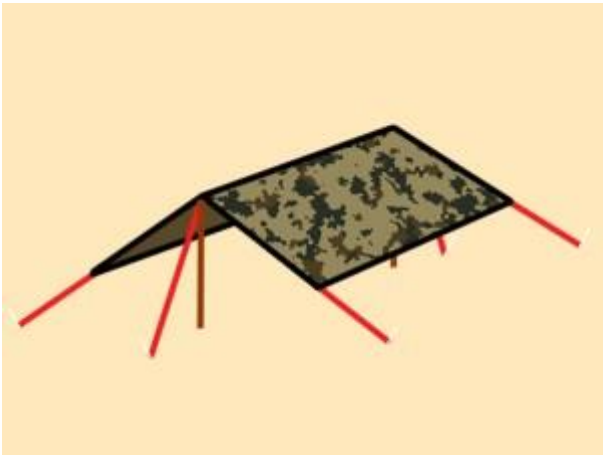
This type of shelter is very similar to the basic sunshade shelter but adds a central support pole at the tarp's midpoint. It is designed for rain or snow runoff, and it's pretty sturdy if you secure the four corners of the tarp well enough. You can make it as tall or as short as you need depending on the length of the pole. This shelter provides an excellent runoff for rain or snow, but it doesn't have any sides to protect you from the wind or cold.

6. The Cornet Tarp Shelter



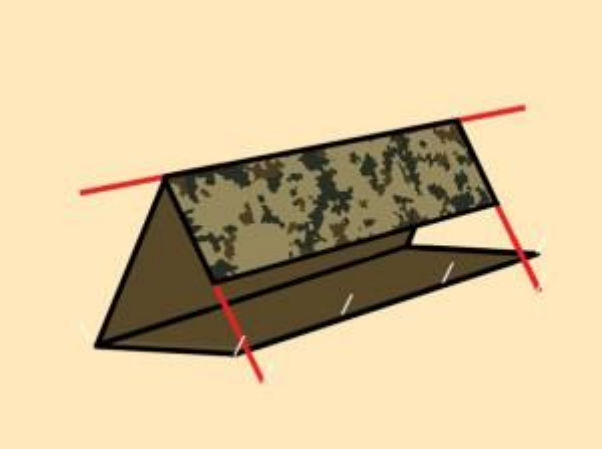
This shelter utilizes the entire length of the paracord strung from a tree to the ground. The tarp is draped over the paracord diagonally, while the leading edges fold under to form the floor. The corner of the shelter must be faced towards the direction of the wind. You will also need to tie off some drip lines above the shelter's entrance to prevent rain from running down the paracord and into the shelter. This is a good design for wind deflection and rain/debris shedding. The downside of this design is that it doesn't offer much head room; if you are tall, you might not have enough room for yourself and your gear.

7. The Dining Fly Tarp Shelter



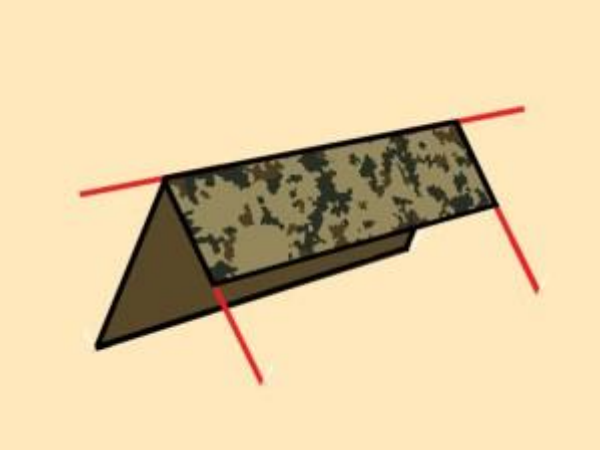
This is the favourite design for many campers, and it's a simple open-air cover. It provides a good sunshade and enough headroom without sacrificing too much space. It keeps away rain, but it offers limited protection against the other elements due to its lack of sides. When adequately tied down and staked, the dining fly becomes a sturdy shelter, and the height of the support pole will dictate the amount of headroom. This is a good model for desert survival because it provides good ventilation and adequate coverage.

8. The Wind Shed Tarp Shelter



This type of shelter requires a little practice to do correctly. Fold the tarp into thirds and ensure the roof's leading edge hangs over the groundsheet for adequate rain runoff. The main ridgeline has to be secured with paracords while stretched between two trees. A length of paracord must be added to the bottom fold, where the back panel meets the groundsheet. It provides excellent wind deflection, but it requires a lot of secure points. The hanging roofline could also sag under rain loads and channel the water onto the groundsheet.

9. The Fold-Over Wind Shed tarp shelter

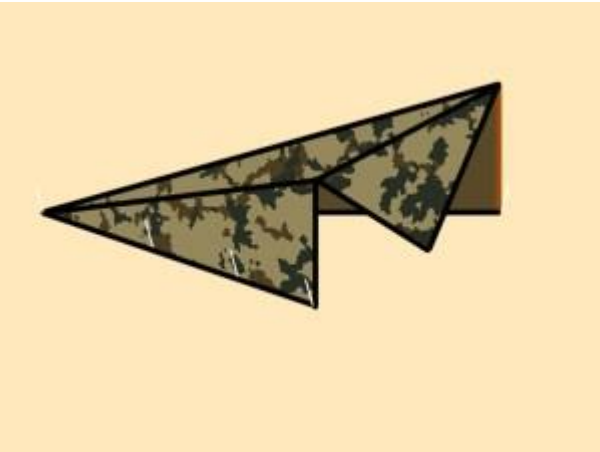


Similar to the traditional wind shed, but it provides more coverage by sacrificing the groundsheet. The height of the paracord ridgeline determines the roof's angle and the shelter's footprint. It offers excellent wind deflection and rain runoff but doesn’t protect entirely against the elements due to its lack of floor, flaps or sides.

10. The Diamond Fly Tarp Shelter

This shelter is suitable for two people and easy to make. It would help if you secured the paracord to a tree and the ground and draped it over the tarp at a diagonal. The length of the paracord and the angle with which it is tied to a tree will determine the overall headroom and width of the shelter. The steep walls will shed rain and deflect wind if well staked. This model will require drip lines, just like the cornet shelter. Depending on the size of the tarp, this shelter can accommodate more than two persons or more equipment, but the lack of a floor and flaps won't keep out the elements. If the wind changes direction frequently, the shelter can be compromised.

11. The Arrowhead Shelter

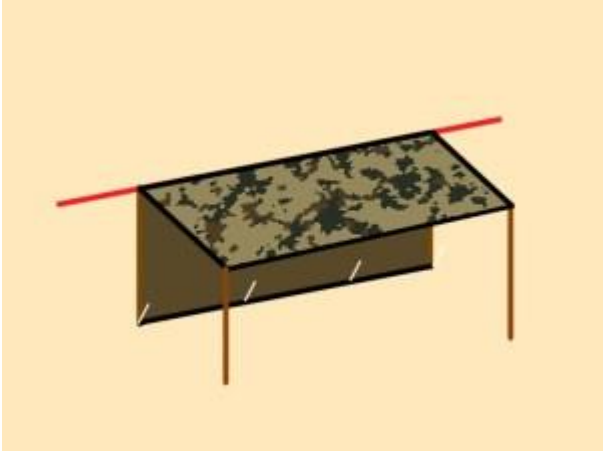


Start the construction of this shelter by supporting the centre of two perpendicular edges with five-foot-long poles or by attaching those edges to trees using a paracord. Stake to the ground the opposite corner so that it creates a series of four triangles. This design will provide 35 square feet of living space and five feet of headroom at the opening. The flap will hand down and make a partial closure. The poles need to be supported by paracord tie-downs. This shelter deflects wind with its low profile and is very roomy.

12. The Half Box Tarp Shelter

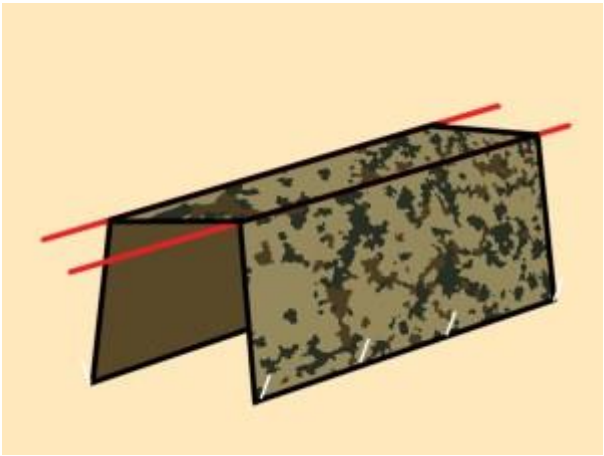
This shelter requires some time to be built, and you need to use at least four support poles and as many or more tie downs to hold it all up. The footprint is 25 square feet and has two sides protecting it from the elements. If not supported in the middle or kept taut from the sides, it will sag under the weight of water or snow. One-quarter of the tarp goes unused and folded up behind the rear corner. This tarp shelter provides good sunshade throughout the day if you position it correctly.

13. The Barn Stall Tarp Shelter



To make this shelter, you can use four five-foot poles for support or two poles and a paracord attached to two anchor points. Poles support the front, and the single 90-degree wall provides enough protection, although strong wind can damage the entire structure. This shelter produces 50 square feet of living area but has no floor. It's simple to build, but it doesn't provide adequate protection from the weather.

14. The Square Arch Tarp Shelter



As the name implies, this shelter is an arch with a square top. Starting with two parallel lengths of paracord attached to anchor points approximately 3 feet apart and 3 feet high, drape the ground cloth over the two lengths of paracord and secure the long ends of the tarp with stakes. This is a good shelter for narrow spaces, but the odds of finding four anchor points in the needed proximity are quite low. To allow rain to runoff, secure one paracord slightly higher than the other. This shelter is three feet wide, three feet wide and ten feet long.

15. The Shade Sail Tarp Shelter

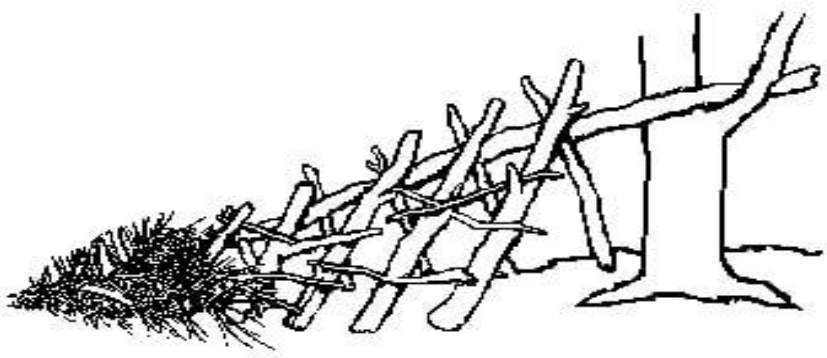
This is an accessible and quick-to-build shelter, and it requires a diagonally draped tarp over a length of paracord attached to two anchor points. The opposite corners of the tarp are staked to the ground. This is an open and airy shelter, and the lower the angles of the sides are, the better it will deflect wind and the more shade it will provide. It provides all-day shade and requires minimal stakes and set up, but it's not weather resistant and will not keep you dry.

Debris Shelters

The debris shelter is one of the most straightforward and versatile shelters used for survival. It is made of sticks and branches, covered with leaves and other debris materials.

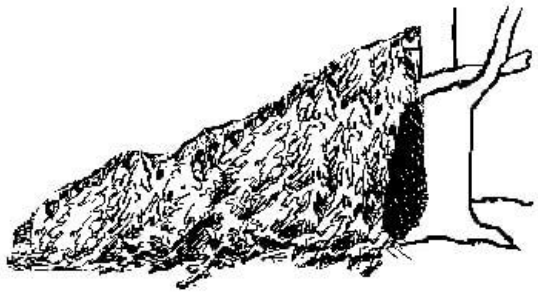
Simple yet sturdy shelters made from natural resources. Can be created from wood, stone, mud, etc. Easy to make, they protect from the elements and, best of all, no special tools are needed to make a debris shelter; as long as there is wood, you can create one.

STEP 1: Look for a sturdy, waist-high base to use as an anchor for the shelter (e.g. a fork in a tree, a stump, or a rock). Find a long sturdy piece of wood you can use as the main beam. Prop and secure one end of the beam onto the anchor just high enough so that you can get under it.
STEP 2: Use your body to measure the shelter's width. Mark the ground no more than a hand's length away from your body. You want a tight space to maximize warmth.
STEP 3: Gather strong branches and lean them against both sides of the main beam, with the bottoms reaching the marks you made on the ground. Create a ribbed effect, leaving an opening large enough to crawl into. Make sure the opening is not facing the wind. The branches should not overlap the main beam too much, and it will create a funnel effect causing water to gather and flow inside. You want to keep the slope steep for water to drain off.



STEP 4: Weave finer sticks through the rib frame creating a screen or net, and this will keep the debris from falling through the ribbing into the shelter.

STEP 5: Gather leaves, twigs, pine needles, and any light, dry materials you can find and pile them onto the ribbed frame. The debris should be stacked thick and high for protection, holding in the heat, and keeping dry (the thicker, the better). Remember to keep the walls steep for shedding water. Lay some additional lighter branches or sticks on the debris to keep it from blowing away. If available, you can also use bark to create shingling.



STEP 6: Pack the inside of the shelter with layers as dense as possible of dry materials. Crawl inside to compress the debris and pack again. Repeat until you have a very thick layer of padding beneath you. Stuff once more, loosely for insulation around the rest of the shelter.
STEP 7: The last step of building your debris shelter is to seal your entrance. Gather a large pile of leaves and sticks near the entrance to drag in with you. After you crawl inside, lay the sticks over the opening to keep the debris from falling. Push the debris against the sticks to seal the entrance.

Shelter safety

There are set ideas for a debris shelter like the A-frame or a lean-to shelter with a ridge pole between two trees. Young people will often come up with ideas on how to do it.
Keep them below shoulder height when moving poles with a person on each end to avoid the pole being swung around. Try not to use sticks over 40mm thick. Large, heavy logs should not be used
Tell the young people not to get inside the shelter until you have looked at it and have told them it's safe. This stops people from being inside the shelter while it is being built.
When finished, the shelters should always be taken down and the poles stored upright. This will keep them dry and won’t rot as quickly as laying them on the floor.

Keeping warm

Before exercising, it is essential to warm up to reduce muscles and joint injury. It is just as important to do this outdoors before climbing a hill or going on a hike as an injury outdoors could put you in danger if it slows you down or you cannot walk. It is also vitally important to stay warm when outdoors. If you get cold, it is challenging to warm up again, so the best way is to be mindful of your body temperature.

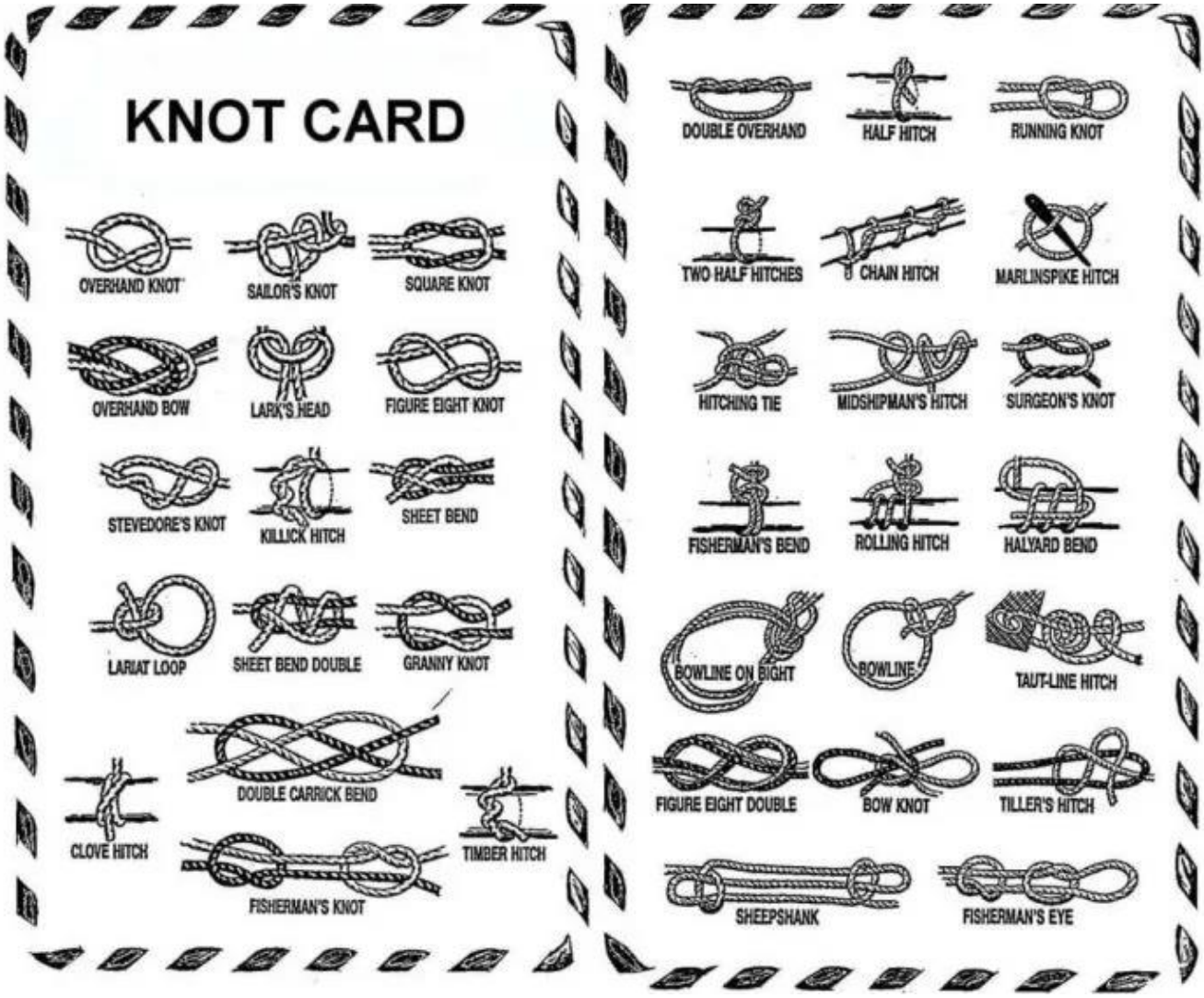
If you have been walking and feel warm, put on an extra layer when you stop. This will seal in the heat and keep you warm. If you do become cold, it means you are losing heat quicker than you can make it. It is essential to keep your body moving, or your body will shut down, and you will be unable to move. This quick warm-up will keep all your muscles working and generate heat.

Description: In this video, we show you how to facilitate a warmup exercise to get your group warm, engaged, and ready for the session. This exercise is an essential tool as it will warm your young people and get them engaged and laughing; beneficial if you are working outdoors where it may be cold.
Where: You can do a warmup exercise anywhere you have space.
Who: This activity is suitable for all ages.
Safety: Make sure young people have enough space to spread out, do not bump into each other and make sure there are no slips, trips, or falls.
Kit List: Yourself and the young people.
Learning Outcomes: The young people will be mentally and physically warm and ready for the session ahead. It also teaches them how to warm themselves up if they start feeling cold.

Video: Warmup (1.57 mins)

4.4 Knots

This is always more difficult than you would first think and is further complicated by different countries, towns and areas having other names for the same knots.
The most useful knots are the Overhand knot, Square Knot, Clove Hitch, and Marlin Spike Hitch.
Print off this card and give the young people this card and 1 meter of rope or paracord and let them practice each knot and hitch.



4.5 Water

Water is a survival essential. Referring to the Rule of 3's, we can generally survive about three days without water, so knowing how to find it and ways of purifying it are essential. Fire is one purification method already discussed.

Finding water

Video – Finding Water (3.46 mins)

Water Filtering

This session is extremely popular and easy to run in a wide variety of environments, including urban ones. It encourages young people to explore, investigate, and get up close with their surroundings.

STEP ONE: Provide each young person with a water bottle (precut in half). Please encourage them to devise a plan for how they will construct their water filter using natural materials, Grass, sand, stone etc.

STEP TWO: Send the group to collect materials they think would be appropriate filters. Allow up to half an hour, depending on the size of the area available for them to explore and plants and materials to consider.

STEP THREE. Split the team into small groups. They must explain their filters to the other groups and say what they found and where.

STEP FOUR: Have them organize their filters into the order they think best after looking at each other's filters.

STEP FIVE: Pour the dirty water through the filters (this can be collected or made by mixing some dirt with water). Compare what is collected after filtering with the water before filtering.

N.B. Emphasise that this water is **not** suitable for drinking! You would then boil the water to destroy bacteria and viruses in a survival situation. If working with a large group, you could turn this into a competition to see which group's filters produce the clearest water.

It is important to debrief the group about what went well and didn't and why they think their filters performed the way they did.

Be sure the groups wash their hands at the end of filtering.

 Video – Water purification Cyprus (6.36 mins)

Boiling

Natural water sources will always contain a level of bacteria. It could come from farm animals, field runoff, fish, and birds,
If you drink water straight from the stream, you risk food poisoning, which will cause you to vomit and being sick takes water away from your body and makes it very difficult to stay hydrated. In a survival situation, it could mean life and death.

To make water safe to drink, it must first be filtered to remove dirt and plant material. Bacteria can survive boiling if they are inside the debris. Water should then be placed in or hung over in a fire-safe container, preferably with a lid on, to speed up boiling time. The water is recommended to be in a rolling boil for 5 minutes. If leaving the water to cool, leave the lid on the water to avoid contamination and spillage. The Military often drinks mugs of hot boiled water, known as Silver
Tea.

> **"A great project for young project for young people and gives them a chance to be inventive"**

Chemicals

You can add chemicals to water to make it safe to drink, such as chlorine tablets or iodine. The water must be left for 30 minutes before drinking

Pot hangers

A great project for young people and gives them a chance to be inventive. If getting a group to make pot hangers, it is much safer to make them without a fire so that the concept can be made and tested for a particular pot and the added weight of water or food.

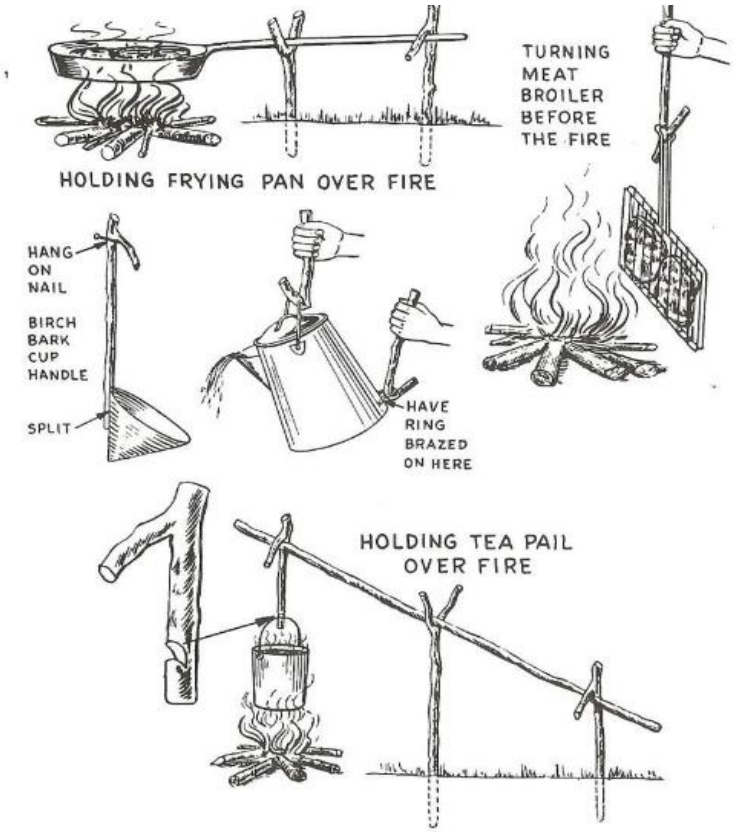
Ask:

Is the hanger adjustable?

Will it bend or break under the weight?

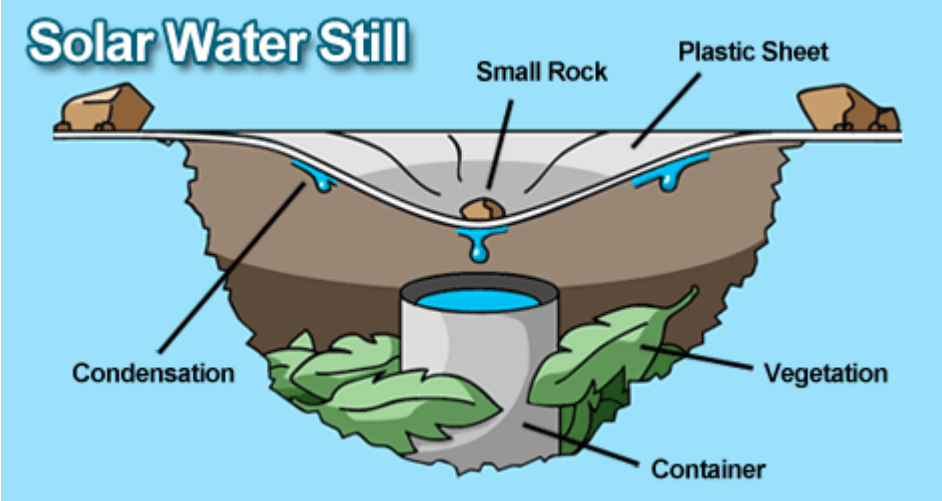
Is it made with fresh green wood, so it won't burn as quickly as dry wood?

The best and safest hangers can then be used on the central campfire for the task.



Toilet

Always use bathrooms when available if you must “act like a cat” and bury waste in a small hole 6 to 8 inches deep. Fill in the hole. Ensure you are over 200 meters from a water source and 100 metres from the camp in a defined area. Bag and carry out toilet paper with you. A poorly managed camp toilet system will attract flies and animals into camp, create bad smells, and spoil the area for other visitors.



4.6 Bushcraft: Thrive

To *thrive* means to *flourish* and *prosper*. When mentioned concerning young people and bushcraft, it means having time to enjoy the fruits of their labours once they have successfully navigated through the potential struggles of the survival stages. More relaxing and mindful or healthier and fun, we again focus on observing the world around us, like plants, trees and/or animals. We also consider our environmental impact on them.

Teaching young people to feel relaxed in the outdoor world is becoming increasingly challenging as they live more indoor lives. Our main goal is to attempt to remove them from comfort and technology. Without young people having a good understanding and connection to nature, there will be no one to fight for or even notice the future decline in the natural world.
Crafting and building help young people’s coordination and imagination while also providing a sense of achievement and pride.

4.7 Food

Food safety

When foraging for edible plants, you must ask if anyone has any allergies to foods and keep the taster to a small piece to give the group an idea of the taste. Then any unforeseen reaction to the plant will be significantly reduced.
You must be 100% sure of the plant. If in doubt, leave it alone. Some plants look different at various times of the year, so pictures in books could be misleading.
All other foods should be freshly purchased and kept in a refrigerated cool box; everything needs to be well cooked. A meat temperature probe can be handy when cooking for a group.
Separate cutting boards and hand washing/washing up facilities are also needed,

Bread

Bread is a great thing to cook as a snack around the fire, a treat, low cost, many ways to cook bread, and variable flavours. savoury or sweet, or with added foraged plants, there is something for all ages and tastes.

Bread on a stick

INGREDIENTS

1 tsp dried bread yeast
1 tsp sugar
2 ½ cups (300 g) flour
⅞ cup (200 ml) warm water
2 tbsp (30 ml) olive oil
1 tsp salt

INSTRUCTIONS

1. In a large bowl, mix all the ingredients into a moist dough. No need to knead!
2. Cover the bowl and let the dough rise in a warm place until it has doubled in size - about 1 hour.

3. Briefly 'knock back' the dough with floured hands by making it into a ball.
4. Tip the dough onto a floured surface and divide it into eight pieces.

Shaping your stick breads

1. Start by stretching the dough into a strip and then roll it into a long sausage shape.
2. Twist a strip around the end of your sticks.
3. Pinch the dough together to secure the end if necessary.

Cooking over a campfire

1. Either hold or prop up your stick over the fire.
2. Choose a spot over hot embers for best results (e.g. “gas mark 4” - where you can hold your hand for 4 seconds to guide where to have the bread).
3. Keep rotating until all sides are browned.
4. Enjoy your freshly baked bread!

Bacon egg fire rolls

1. Get some sizeable soft bread rolls. Using your fingers, gently make a hole into the bread's centre from the side. Without splitting the roll, gently widen the cavity inside the roll.
2. Holding the upright hole crack an egg into the hole
3. Wrap the outside of the roll with three rashers of bacon. This will help keep in the egg
4. Wrap the whole thing in 2 separate layers of tinfoil
5. Place it in the hot coals of the fire and flip it over every 5 minutes for about 30 minutes in total
6. Leave to cool for a short while.
7. Unwrap and pick off any stuck-on foil, the bacon should be brown and the egg cooked. The fat from the bacon is soaked up by the bread, making it soft and salty.

 Video – Bacon and Egg Fire Rolls (2.25 mins)

Popcorn

It is possible to make popcorn in a saucepan on hot coals of a fire, but it is much more engaging if you wire 2 x sieves together to a long stick. You can put the popcorn kernels and hold the sieves over the fire. Or ask the young people to do it for you.

The young people can see and hear the popping, which is much more fun than cooking in a pot. Sprinkle a little sugar or honey and empty it into a bowl to pass around the fire.

Marshmallow S'mores

You cannot light a fire without someone mentioning marshmallows, and you may even get adults bringing them to a children's camp. You could be seen as the bad guy if you refuse.

- Purchase 20x 400mm stainless steel kebab skewers. and file the tips blunt (this saves you from hunting for 20x nice clean sticks, sharpening all the ends, and scraping bark off while your attention should be on the young people.), a cutting board, biscuits, and Marshmallows.
- Invite up the young people two at a time
- Explain not to wave around or flick the marshmallow. If it catches fire, (Sugar begins to burn at 350c and is very sticky. The last thing we want is a burning marshmallow stuck on a young person's face.)
- Once the young person is happy with their cooking, they return to you. Hold up two biscuits and sandwich the Marshmallow. Ask the young person to pull the skewer out. The young person then stabs the skewer into the ground, which helps get some of the sugar off and cools the tip.
- Hand over the Smore, and they sit down, (the process of adding the biscuit allows time for the marshmallow to cool down, so there are no burnt lips or fingers)

- Invite up the following two young people to start cooking
- Wet wipes are also a must for sticky hands and cleaning skewers if anyone would like more.
- Be aware most Marshmallows contain gelatin, so they are not vegan, Kosha or Halal.
- Also, some biscuits can contain nuts, so be careful of allergies.

Fur: rabbits

The theory of teaching more advanced students how to cook and skin a rabbit is it has the same body shape as most animals with four limbs.
The rabbit can be boiled to make sure it is cooked all the way through and then put on sticks for the young people to brown the outside. It can also be added to a stew.

Feather: pigeon

If you become familiar with preparing pigeons, you will better know how to prepare most birds. Pigeon breasts can be fried in a pan or put in a stew, but they will have a strong game flavour if overcooked.

Fish: trout

Again, this is to understand the anatomy of most fish and be aware of allergies when using fish. Trout works well on a campfire as it absorbs the smoky flavour

5. Games

The following are a selection of games that you may find useful. This list is not finite, and we encourage you to use those you also know work really well with young people when out in the bush/forest.

5.1 Campfire games

Jack's Alight

This works particularly well at night, sitting around the fire. Find a 50cm stick about as thick as your thumb and place the tip of one end into the fire. After a few minutes, remove it and blow out any flame on the burning tip. Get the group to stand arms width apart in a circle.

Explain that one end of the stick is hot and an ember is on the end. Lean forward and hold up the stick. Blow one long breath at the stick, so it glows and says," Jacks alight!". Then carefully pass it to the person next to you, by the base of the stick first, they then blow and pass it on again, and repeat, Keep an eye on the safe passing of the stick in the beginning,
The game aims not to be holding it when the stick stops glowing. As the ember starts to fade, the group will speed up, so they are not left with the dead jack and the eternal shame of losing. It is not a problem in the end if they pass fast as the tiny glowing ember is unlikely to hurt anyone.

It's a good ice breaker and teaches young people to act responsibly around the fire.

Moon in the spoon

A great game to play around a campfire or in a circle of young people.
Tell the group if they work out the trick and try not to give away the answer when they get excited.
Get a spoon and pass it to one of the groups, asking them to check it is a real spoon and hasn't got any trapdoors or hidden compartments in it,
When they pass it back to you, say, "thank you", hold up the spoon dramatically and say, "I can see the Moon in the Spoon!" then pass it to the next person in the circle.
They repeat, "I can see the moon in the spoon."

You then say, “No, you can’t”
It will continue to be passed around until someone realises the trick of the game is to say, “Thank you” as they receive the spoon, then “I can see the moon in the spoon.”

The triangle game

A silly frustrating game that gets young people to overthink or become confused by the maths of angles. An excellent game to play while walking or around a fire.
Pick two random objects, and say, “there is a triangle coming from me to the campfire to the moon and back to me. Who’s triangle is it?” The trick is the first person to talk owns the triangle. You can then do tiny triangles to make it easier for them (lol) from this leaf to this stick to that stone.
It will take a while until someone understands how it works.

5.2 Ball games

Name game

An excellent Ice Breaker with a new group, get the group into a circle. The rules are:

- Before you throw the ball, you must say the person’s name out loud (if you don’t know their name, ask) then everyone in the circle needs to receive the ball.
- You cannot pass to the people next to you
- If you drop the ball, it starts again
- In the end, it needs to return to the person who started the game
- Once the group completes the task, you can see if they remember who passed it to them by doing it backwards.

Head or catch

Stand in the centre of a circle, and explain the options are reversed “if I say catch, you have to head the ball. If I say Head, you need to catch it, start slowly and get quicker as they get better at it.
Shout “catch” and throw the ball to someone. if they catch the ball, they are out
Keep going until you only have two people left in the circle.

Footgolf

Good to add along a woodland path or even in a field.

- Make some simple tripods from sticks about a metre high, put in a Teeing post a short distance away
- Start the course easy and straight, increase the distance and obstacles. You can also make the tripod legs closer as the course continues.

The aim is to get a football through the tripod with a minimal number of touches. If the ball is kicked off the path to out of bounds the is a 5-point fine. If the ball knocks over the tripod, there is a 10-point fine. The winner is the person with the lowest score at the end of the course.

Piggie in the middle

Two teams throw the ball over the head of people in the centre until they can retrieve the ball.

5.3 Rope games

Skipping

- Never underestimate how much a group likes skipping, which is also great for confidence-building with shy people.
- Spin the rope between two people. The group's objective is to time it right and run from one side to another. They will need to organise themselves on when to run and who is running. The less confident usually get left till last.
- Then raise it to run in, do one jump and run out.
- Next, see if you can get the whole group skipping in time. If the rope catches one of them, they are out. Continue until only one is left
- You can also see who can do the most skips.

Rope Art

- Split the group into two.
- The first group draws an animal or bird with the rope, using teamwork
- The 2nd group must guess what the animal is

- Then switch sides and repeat.

Rope Shapes

- Stand the group in a circle and tie the rope into one large circle with all the young people holding the rope with both hands
- Tell them not to pull on the rope too hard as it could cause a rope burn on someone's hand or pull them over.
- Ask the group to work together to make a square, circle, triangle, or star shapes with the rope while holding it.

Undo knots

30m rope with 30 Knots tied into it, the team needed to undo the rope as fast as possible.

Step over the line

Lay the rope in a line on the floor. The group need to use teamwork and communication to all step over the rope at the same time

Land, sea, air

Lay a rope on the floor in a straight line: one side is land; the other is the sea. The caller has six (6) options:

1. LAND - jump to the land side
    1. SEA - jump to the seaside
    2. AIR - jump on the spot
    3. TRAIN - Jump to land and make a train arm motion
    4. BOAT- jump to the sea and pretend to row a boat
    5. PLANE - hold out your arms and fly around in circles over sea and land

If someone makes a mistake, they are out of the game (e.g. you can't have a boat on land, and you can't have a train in the sea)

Limbo

Limbo dance under a rope and at different heights.

Snake

Someone drags the rope around a field in random directions. The rest of the group follows the tip of the rope wherever it goes.

5.4 Stick games

When the young people collect sticks for the fire, give them all a stick each. Tell them to have a good look at the stick's knots and imperfections and come up with the biggest lie about their stick (e.g. it's a dinosaur toe bone, you can see by the bend in it that means a T-rex stood on his foot). Throw all the sticks back into the pile and mix them up, and then the group attempt to find their original stick from the pile. Once the fire is lit, invite them to put their sticks on the fire. Take note of how attached to the sticks they have become from a simple game.

5.5 Nature-based games

Mice and Squirrels

Make a rope circle and a mouse nest and place one/two young people inside the circle. They are Squirrels, and the rest of the group stands outside the circle and are mice.
Empty a bag of pinecones/ lightweight balls into the circle.
The squirrels aim to get all the "acorns" out of the mouse nest and throw them all over the field to bury them for winter. The mice must pick up the "acorns" and return them to their nest. No team will win until the mice work together and put all the "acorns" in the nest simultaneously.

The Heron and Otters

Make a large rope circle on a flat area in which the Heron (young person) stands in the centre and has a "fish" at their feet (a ball or plastic cone).
The group members are the cheeky Otters who want to steal the "fish."
If the heron points at an otter, they must return to the outer edge of the circle. If an otter gets the fish, they become the Heron.

Hey Fishy Fishy

Very similar to bulldog, 1 person is the shark, and the rest of the group are fish.

Cone off a large flat area for the group to run from one end to the other,
The sharks shouts “Hay Fishy Fishy I want you for my tea!”
All the fish must reply “No Sharky Sharky you can’t catch me!”
If all of the fish have replied and loud the shark will nod, then the fish can run to the other end of the area.
If the Shark touches a fish, the Fish becomes seaweed.
Seaweed can’t move its feet but can wobble arms to catch the other fish. Keep playing until all the fish are seaweed, the last Fish left becomes the shark for the next game.

6. Tool Selection and Craft

All tools have an element of danger to their use, and we recommend attending a course on their correct use. Many laws also exist on carrying and using knives and cutting tools in public places. Make sure you fully understand the Laws in your area and pass this information to the group you teach.

6.1 Hand drill /Palm drill

A standard 5mm drill bit in a handle great for drilling holes without the worry of electric or hand-cranked tools.

6.2 Saws and Saw safety

All saws tend to skid to the centre, so if sawing with your right hand, if the saw slips, it will skid to the left. If you cross your left hand over to hold the wood, if it slips, it should slip away from your hand

Start with minimal, controlled cuts until the saw is sitting in a grove in the wood, then make longer strokes using the entire length of the blade. If you feel tired or are struggling, stop and have a rest.

Bahco Laplander Pruning Saw

Bahco Laplander Pruning Saw is the industry standard as the blade is very tough and can be straightened if bent. The blade also locks in the closed and open position, meaning it won't accidentally fold up when sawing. It is still a dangerous tool if attention isn't taken.

Bow saw

A longer saw with a very rough blade for cutting wet wood.

Junior hacksaw

Great for simple projects with wood; very fine teeth so much safer for younger children.

6.3 Knife safety

Knife use should be kept to a minimum and only used with groups you know and trust. There will always be the risk of minor cuts on fingers while practising. But hopefully, we can avoid more serious injuries

It needs to be explained and impressed to the group that knives are tools, not weapons, but they can do a lot of damage if you don't pay attention

- Always have a first aid kit on you if you are using your knife.
  Never cut towards yourself or your gripping hand.
  When holding a knife, never take a step without re-sheathing first.
- Never, ever point your knife at someone, even in jest.
  Do not carry on and hope for the best if you cut yourself. Stop and get it sorted.
- Don't try to hide cuts. Don't be afraid to 'own up.'
- Don't give your knife to anyone else. It's your responsibility.
- Don't 'go mad' and hack away at tricky bits.

- Give the knife your FULL attention.
- Always use your leading hand – using your 'other' hand because your leading is tired/achy will lead to accidents.
- Carve for short periods – if you are tired, stop.
- Children's hands tend to be a bit softer and thus prone to blistering. This can be remedied by building up from short carving sessions with gaps.

Supervision: Younger children must be supervised at all times when a knife is in their possession, and the knife should be taken back by you for safekeeping at the end of the session.
Abuse/Misuse: There should be sanctions if the knife is abused or your child is silly with the knife. A period of enforced abstention works typically.
Focus: If a child (or an adult, for that matter) has a new knife, they want to use it. They want to use it for something, for anything. Give a child worthwhile and achievable carving projects to which they can apply themselves. If they have a knife and no focus, they are more likely to abuse or misuse it.

The industry standard for knives Is a Mora, clipper, or companion. They have a Scandinavian grind on the blade, which is harsh and sharp. We recommend stainless steel blades as this requires less maintenance and cleaning than high carbon steel.

Spook knife/Crook knife

A curved bladed knife for scooping at the wood to create a bowl or a spoon. Difficult to use, it can be awkward for young people to hold. Assess the ability of your group before allowing them to use them. The instructor can assist in this task.

6.4 Axes and Machetes

Although they have a place in most woodland skills, they can encourage people to act tough and attempt things above their skill set, so we do not recommend including them in your skills development. It takes a lot of time to gain coordination and skill to use them safely.

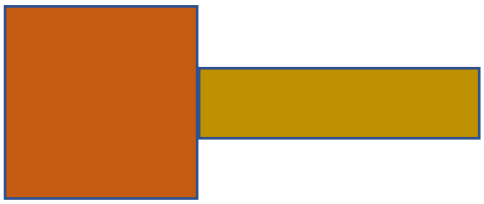
6.5 Sharpening

Sharpening and stropping should be done often as tool maintenance. This is not something young people can be trusted to do. Mechanical sharpeners are available, but you would do better to learn how to sharpen your tools with an oil stone or whetstone, as your tools will last longer and have a better edge.

6.6 Making a hammer

A very simple tool with lots of uses around camp, Knocking on pegs and posts, or wedges for splitting wood. The size of your hammer is decided by the task you need it for. We recommend finding a 100mm thick log, cutting it about 250mm long and using your saw, carving in 100mm all around the log to a depth of 20mm.

Stand the log upright, using a knife and a log batten down to the saw cut, and remove the material. This is the handle for your hammer.

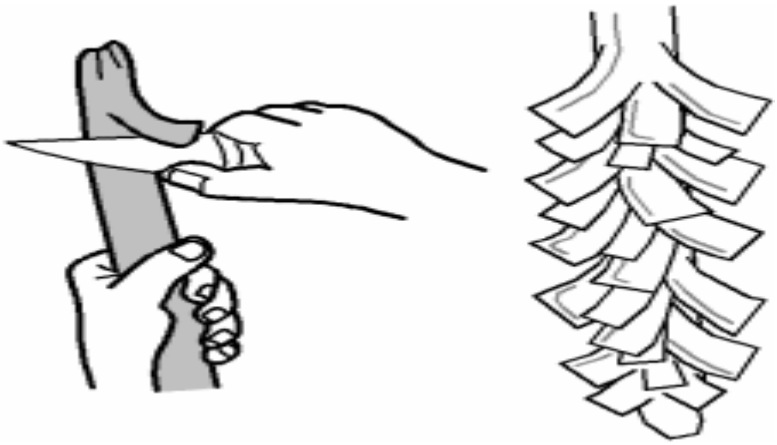


Smooth off the handle until it feels conformable and ready to use.

6.7 Feather sticks and flower darts

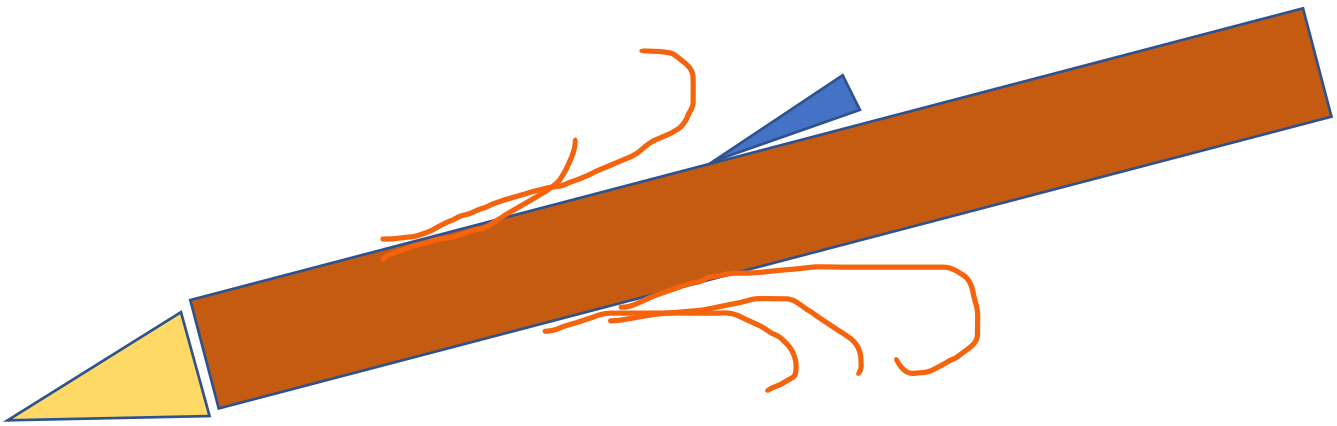
Feather sticks

Feather sticks are handy for fire lighting. If you cannot find any dry wood, making feather sticks will expose the dry wood inside, and the thinner strips will dry faster.



Flower dart

Select a thumb thickness stick about 1-meter-long. Hazel and willow are great trees for this.
Carve a point at one end. Hold the stick in your left hand near the top and lean on it so the point digs into the ground.
Cut away from you for 250mm up, making long curls roughly 100mm long



Continue cutting and rotating the stick. You will eventually reach the stick's centre, where you can

snap it off, revealing a wood flower. Because one end is pointed, the feathered end acts like a flight on a dart so that you can have a dart throwing competition.

Where the flower snapped from the stick, it gives you another point to put into the ground. With the lessons learned from the first dart, they can now make a better one – a little longer? Better feathers? Longer point?

6.8 Whistle

Making whistles can be a fun activity for young people.

Elder wood is particularly suited to whistle making because it has a very soft pith that can be easily removed to create a hollow tube. You can use green wood; however, it is better to use dry, dead wood, so some preparation before delivering this session is necessary. You can also substitute Elder for other hollow woods such as bamboo, which can often be bought.

The wood must have a large pith in the centre as this allows plenty of room for the sound chamber; however, you will need the layer of wood around the pith to be thick enough so that it is not too fragile. A shoot of wood about two years old is usually good.

Cut a finger-length section from your wood.

Scrape the bark off.

Push the pith out and scrape the inner walls with a small stick until totally free of pith.
About 2cm from the end, you need to cut a notch in the whistle - a few cuts at 90 degrees and then some more at 45 degrees. This can either be done by the instructor or by the young people. You will need to dynamically risk assess which option is best based on the group, their ages, behaviour, competency etc., and how comfortable you feel as an instructor supervising knife work.

Now you need to make a small piece of wood to fit into the mouth end of the whistle. Carve a stick down to make a dowel the correct diameter to fit the inside. Keep testing how well it fits until you have it perfect.

So that there will be a small gap for air to pass through towards the notch, a shaving or two of wood needs to be taken off the side of the dowel so that it has a flat side, as shown.

Cut the small piece of dowel to the correct length - as long as from the mouth end to the vertical cut of the notch.

The dowel should be tight and will need no glue if it fits snugly.

Fit the dowel so that the air runs level with the notch when you blow through the small gap.

You can test the whistle to see if you get a sound. Put your finger over the other end to block it, then blow. You should get an excellent clear sound.

If you get sound, you can now block up the other end of the whistle with another piece of wood. Do the same as before but make it airtight.

Note: The smaller the sound chamber, the higher the pitch of the sound.

6.9 Mini shelters

A fun activity for all ages, it engages imagination, confidence and ingenui.
Each young person receives a cuddly toy, a pinecone, or a stone which they have to imagine is a person. Explain they have to come up with a name for their character and a back story of how his life is going and how they ended up here. They can think of the details as they build their character as a shelter.

As they build the mini shelters, let them know there are bonus marks for additions like beds, pretend campfires, seating areas, etc. Allow plenty of time for them to explore for materials and build

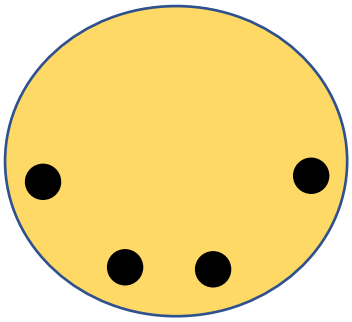
additional items, finishing up when some of the group start getting agitated and bored. Give a 2-minute tinkering time call.

Everyone shares their shelter with the rest of the group and describes the shelter's various features and the character's back story. As the leader, make sure to point out things you like about each shelter (e.g. This is Bob, and this is his dog Stickboy. The people in town were mean to Bob's dog because Stickboy has no legs and only one eye, which made Stickboy very sad. Bob decided to move away from the mean people in the town and came to live in the woods with his dog. Here is Bob's bed, and here is Stickboy's basket. The shelter is up on stilts because this area floods in the winter. Bob and Stickboy are delighted together hunting rabbits and eating berries).

Once everyone has explained their shelters and stories, you can choose a winner if you wish, or a few winners for best story, best shelter, and best-added extra (e.g. swimming pool.)

6.10 Mini people

If they are trustworthy, get the young people to cut 20mm discs of wood from a 70-80mm thick branch and then drill four holes in the discs at least 10mm from the edge. Put scrap wood under the disc to prevent damage to tables or benches.



Once the four holes are drilled, the young people can draw a face of their choice on the disc.

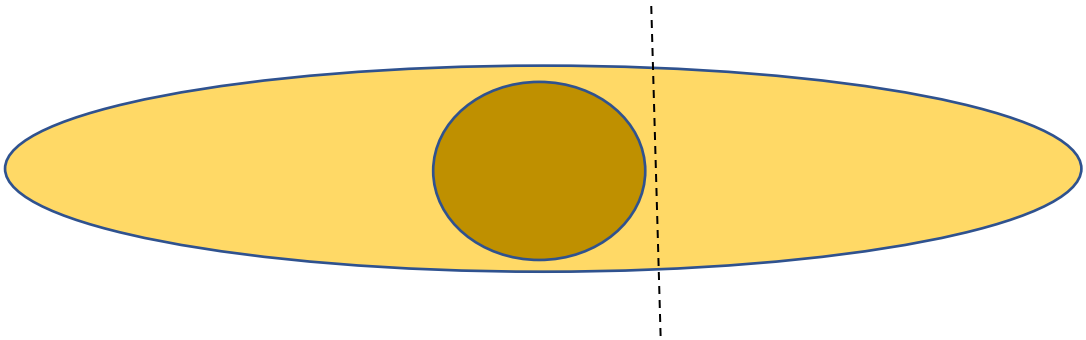
They can then thread through two lengths of string - one through the arm holes and one through the leg holes. Once this is achieved, they can tie knots as hands or add drilled conkers of acorns as hands and feet and ends tied so they won't fall off.

The Mini people can also be used for the Mini shelter building session.

6.11 Kayak spoon

Split a 50mm softwood stick down the centre.

Remove the bar, and the shape can be roughly made. If you look at the image, you can see it looks like a kayak. Using a crook knife, carve out the spoon's bowl, having a good grip as you do it. Once the bowl is cut, you can saw off the end and finish shaping your spoon.



6.12 Bushcraft toggle

A simple project for beginners cut a thumb thickness stick roughly 200mm long.

Shape the ends with a knife, so there are no sharp edges, then drill a 5mm hole in the stick's centre. Thread through 1.5 meters of string (550 paracord is ideal). Tie it off and make a large non-slip loop at the other end.

This can be used to hang a pot over a small fire, hang your bag or coat from a tree, or string up a tarp. Your imagination only limits the uses.
If a group makes them, they can all be linked together in a chain to create a rope to be used in other ways (e.g., helping the team up a steep slope or to cross a river).

6.13 Carving a tent peg

You will always find a use for tent pegs around camp, and the process of making them will aid young people's knife skills.

Start with a very basic peg with a point, a notch for string and a rounded head.

Work up to a more complicated design like those shown below, which involves removing bark, splitting thicker branches, and even hardening each end in the fire.

6.14 Cordage

Description: In this video, we show you the principles of making cordage that can be used with any material from string for a bracelet or more experienced group shelters, nets or fishing equipment.

Where: Anywhere but outdoors near the plants you are using is preferred.

Who: 8+

Safety: Be careful when handling certain plants as you may get stung or pricked.

Kit List: Gloves and butterknife

Learning outcomes: young people should be able to make their cordage and have something to take home with them and a sense of achievement. The young people will also have improved their teamwork by helping each other while having a relaxed session.

Making cordage is an excellent bushcraft skill which, as an activity, is also beneficial for mental wellbeing. A wide range of materials can be used, including both natural and man-made. We will describe the process of making cordage from nettles, but the underlying principles remain the same for other materials. Other natural materials which can be used include sweet chestnut inner bark, willow inner bark (again, needs processing), lime bark (effective but needs significant processing), and Rosebay Willowherb (aka Fireweed), Spruce Roots. Clingfilm is an accessible man-made material that can also be used.

Nettles make excellent cordage because they are strong and durable. When collecting nettles with young people, gloves are an essential tool to prevent unnecessary stings.

Video: nettle string (8.31 mins)

The optimum time for collecting nettles is when they are younger plants because they are easier to separate the outer ‘skin’ from the inner pith. However, they tend to be shorter, so you need more joins in your cordage. If you leave it to later in the year, the nettles are taller, meaning fewer joins

but more challenging to separate the inner and outer layers. June, July and August are good months for stinging nettle cordage when the nettles are still young enough to make it easy to separate the inner from the outer and are nice and tall.

The first step in making stinging nettle cordage is to collect the nettles. I usually go for ones with a purple hue in the stem, which seems to make better cordage. The old saying of 'grasp the nettle' springs to mind – hold the nettle at the base and snap it off, taking care to leave the roots in the ground.

Once you've picked a bunch of nettles, it's time for the next stage. Hold the bottom of the nettle in your left hand and then close your gloved right hand around the stem just in front of my left hand. Move both arms at the same time off to your sides. Then pick off any remaining leaves.
Next, you want to give the nodes (the bits where the leaves were growing from) a gentle tap. Starting at the bottom of the stem, run your thumbnails down so that you split the stem down the middle.

Bend the whole thing over a couple of centimetres down from the bottom end. This makes it easier to separate the inner from the outer.

Peel the outer skin away and discard the inner, woody pith. You should notice that the 'skin' has four sections running lengthways; split it into two pieces containing two sections.

Start by holding the nettle about 1/3rd of the way along. This means any joins should be staggered and not in the same place.

The rest of the instructions are for a right-handed person, so if you're a left-hander, reverse everything. These instructions are also applicable for other materials, including Clingfilm.

- Pinch the nettle between your left thumb and index finger. Twist the nettle away from you with your right thumb and index finger until a kink forms in the nettle.
- Now pinch the kink with your left hand.
- Take one strand and twist it away from you until about 5cm is twisted. Hold this strand between the middle and ring fingers of your left hand. Make sure you maintain the tension.

- Twist the other strand away from you until about 5cm is twisted. Hold it next to the first twisted strand and pinch them both with your right thumb and index finger.
- Now twist both strands away from you with your left hand. They'll want to twist, so you're just lending a hand.
- Keep twisting until the twist meets your right hand.
- Now pinch the two strands just at the end of where the twisting ends, again with your left thumb and index finger.
- Twist one strand away from you for about 5cm and pinch it between your middle and ring finger. Then twist the other strand away from you, pinch the two together with your right hand and twist away from you with your left.
- Keep repeating this process. You'll have to join in another piece of fiber as one strand runs out. This is especially easy with nettles, but the process is similar for any fibers. Before you run out, lay another fibre next to the one that's getting short. Nettles are nearly always wider at the bottom than at the top, which means that when you prepare the fibers, one end will be thicker than the other. So, if it's a fat end running out, join in a thin end. And if it's a thin end running out, add in a thick end.
- Twist the new and old fibres together, away from you.
- And now carry on as previously.
- There'll be a couple of ends sticking out. Just trim them off at the end.

It is fun to turn this cordage into bracelets that young people can take away from the session. Carrying out this task is a great stress reliever and will have a calming effect on anyone suffering from anxiety.

6.15 Stoves: Handmade, Kelly kettles & Trangia's

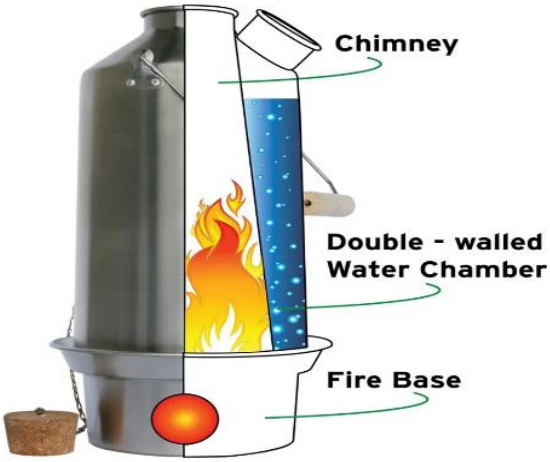
There are many handmade meths and wood stove designs available online, usually using old bean or tuna cans, with older groups they can be encouraged to make their own design. Penny stoves or fancy feast stoves. **Things to be aware** of, Cans have a plastic lining so you will need to allow the stove to burn off any plastics before it is used for cooking.

Edges may be very sharp depending on the design, a small metal file will help to smooth sharp edges.

Video: How to make a wood gas stove (1.44)

Video: Tuna and Rice Bushcraft style (1.00)

Kelly Kettles Very simple stoves for boiling water, fill the centre fire base with twigs and light them it can boil the water in the outer chamber in 5 minutes. Always remove the stopper to avoid water spraying out when it boils.



Trangia's are an all-in-one meths burning stove for camping, the Meths bottle must be kept away from the stove when lit, and never filled until the stove is cool, the stove must also be placed on flat stable ground to avoid spillage away from tents of bedding.

7. Navigation

Understanding direction and orientating yourself outdoors is significant. There are plenty of clues out there if you pay attention. Making young people more observant and less reliant on their mobile phones can only be good. Below are some of the signs and techniques to use as direction indicators.

7.1 Mapmaking

Explain to the group that you would like a map of the area, looking down over the camp from a bird's eye view. It helps young people imagine the idea from another perspective.
I use paper and pencils to sketch the area in as much detail as possible.
Comparing each map, you will find elements of each one that could be used to make a more accurate map.

7.2 Sun stick

The sun's movement through the sky has been used to determine direction since humans first existed. There are several ways that the sun can be utilised to give a general indication of direction, one of which is to track its movement through the sky by marking the movement of a shadow created by placing a straight stick into the ground. This method, known as the shadow stick, can be used to determine direction accurately. Still, its use is often described inaccurately, leading potentially to a large degree of inaccuracy if not adequately understood.
The method often described is to place a straight stick into the ground and mark with a stone or peg the end of the shadow cast by the stick. You then wait a period and place a second marker where the shadow now reaches. You should now be facing north by placing your left foot at the first marker and your right foot by the second marker.

You are likely not too far out at certain times of the year and during the middle part of the day using this approach. However, using the two-marker method early in the morning and late afternoon in the middle of both summer and winter could mean you are a considerable way out. Close to the equinoxes, the path described by the shadow's path is close to a straight line, so that this method would be OK in late March and late September.
Two methods can be used to use a shadow stick to determine direction accurately. The first requires you to mark the shadow fairly frequently, ensure that you capture the middle part of the

day, and then decide where the shortest shadow will fall. The sun in the northern hemisphere will be south when it is at its zenith, giving the shortest shadow, therefore pointing exactly north.

An alternative method, which doesn't require you to mark the shadow quite as frequently, is to mark the shadow at some point before the middle of the day and then scribe an arc with the radius of the length of that shadow on the ground using string or cordage attached to the shadow stick. As the day progresses, the shadow will shorten and move away from the arc as the sun reaches its zenith. As the sun moves past its highest point and starts to head west, the shadow will begin to lengthen again, and at the equivalent time after the sun's apex, the shadow will re-intersect the drawn arc. A line between the two points will give you an exact West-East line.

Remember that the direction determined using the shadow stick will be different from the magnetic bearing from a compass and the grid north on a map but using a shadow stick properly will give you the true rotational axis north. Also, if the moon is bright enough, you can use the shadow created by the moon in the same way.

7.3 Compass

Compass basics will include orientating a map to align with what you are looking at. The top of the map will always be north, the west, east and south as left, right and below, respectively.

7.4 Pacing

On level ground, measure a set distance of 100 metres. Invite the young people to pace. As you walk, usually count only the steps your right foot takes.
Once they have a number, they must remember it and multiply or divide it so they can walk a predetermined route to find an end goal.

At the end goal, you can leave more clues for a treasure hunt or out on a field to see which young person gets the closest to the endpoint.

7.5 Natural navigation

A very broad subject that you can constantly work on.

Moss trees

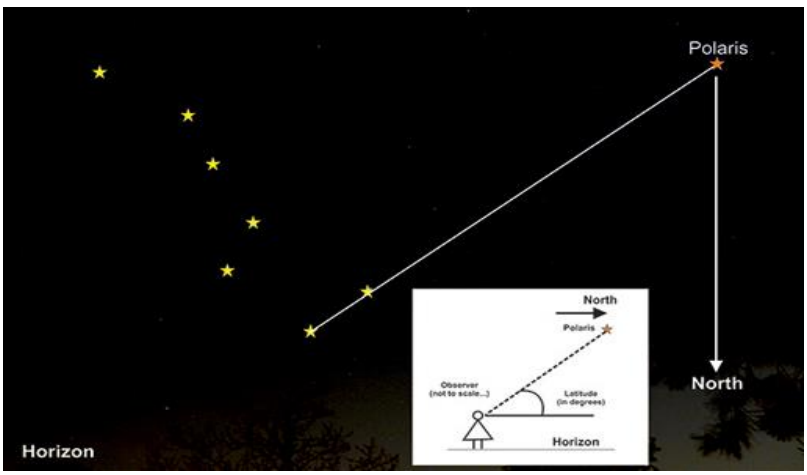
The sun rising in the east, setting in the west and being at its highest point and south at noon has an impact on plants and animal behaviour, with some mosses' and lichens' dislike sunlight and will only grow on the north side of a tree, while others prefer to be in the sun. With a compass and experience, you can start to work out the direction indicators. Trees grow towards the sun, and there will be more and flatter branches on the south side of a tree as it grows towards the light. This is called Phototropism (photo meaning light, and tropism is Greek for turning). Flowers will also point at the sun even on a cloudy day. If you know the time, you can decide on the direction.

Stars

The pole star is directly over the north pole. As the earth rotates, Polaris stays still, and all the stars revolve around it. Polaris is not the brightest star and will be at a different height in the sky depending on your position on earth (Longitude). If you are in the southern hemisphere, you can't see it at all.

To help us find Polaris, we need to look for the Big Dipper, Ursa Major, The Plough, or The Wagon, among other names. As we look at Ursa Major, we can see the four stars that make up the handle of a saucepan and the four that make up the pan. The furthest two stars on the pan always point at Polaris, the pole star.

If you imagine a line through the two stars, it will guide you to facing north.



8. Mindfulness

Relaxing in woodland has enormous benefits in helping a young person's mental health. When engaging in relaxing activities, we need to think of group management in a completely different way.

1. Have no time limits to a task. It takes as long as it takes.
2. The tasks are for their benefit, not yours. Try and avoid praise and reward, which is a complicated concept for some to understand. If they gain praise for a specific task, it is human nature to replicate it to please the instructor. So, are they doing that to make themselves happy or you? This can lead to some young people becoming needy or addicted to praise. Removing it and saying things like "I bet you are proud of that" or "did you enjoy that" avoids winners and losers/ best and worst. Instead, young people develop emotional resilience and do things in a way that makes them happy. This also applies to negative behaviour. Instead of shouting "don't do that!" make it an emotionally lead comment like "Timmy, you are waving that big stick; it makes me scared" or a simple "can you think of a safer way to do that?" the young person will hopefully then react and think rather than being defensive.
3. Try not to be too restrictive with the area they can use by roping around an area. Use terms like "try not to go out of sight" or "stay where you can still hear my voice."
4. Invite them to participate in an activity, do not force participation. They can always join in later.

> **"Relaxing in the woodland has enormous benefits in helping a young person's mental health."**

9. Leave No Trace

We always need to consider the environment and its impact on it, and some young people are very aware of the environmental problems. So, it is worth explaining relevant parts of leave no trace before you start.

The Institute of Outdoor Ethics has seven principles to help people think about their impact on the environment when camping and hiking.

Description: In this video, we talk about the seven principles of leaving no trace, the importance of maintaining your environment, and respecting your surroundings.

Where: Anywhere you can talk to your group.
Who: Anyone
Safety: N/A
Kit List: A list of the seven principles of leaving no trace with a short description.
Learning outcomes: The young people will have a better understanding of their effect on the areas they use and how they can better maintain the environment for others

Video: Leave no Trace (6.12 mins)

1. **Plan and prepare**
    - Know the regulations and particular concerns for the area you will visit
    - Prepare for extreme weather, hazards, and emergencies
    - Schedule your trip to avoid times of high use
    - Visit in small groups or split larger parties into small groups
    - Repackage food to minimize litter and waste
    - use a map and compass to eliminate the use of rock Cairns flagging or marking paint.

2. **Travel and camp on durable surfaces**

- Durable surfaces consist of established trails and campsites, rock, gravel, dry grasses, and snow
- Protect river areas by camping at least 100 meters from lakes and streams
- Good campsites are found not made Altering the site is not necessary for popular areas
- Concentrate use on existing trails and campsites
- Walk single file in the middle of the trail even when wet or muddy
- Keep campsites small and focus activity in areas where vegetation is absent.

In pristine areas

- Disperse use to prevent the creation of campsites and trails
- Avoid places where impacts are beginning.

3. Dispose of Waste Properly

- Pack it out, inspect your campsite and rest areas for rubbish or spilled foods pack out the rubbish and left-over food. Burning rubbish and food is never recommended. It creates toxic smoke and leaves toxins and microplastics in the ground
- Deposit human waste in cat holes dug 8 inches deep at least 200 meters from any water source, camp and trails, cover and disguise cat hole when finished
- Pack out toilet paper and hygiene products
- When washing yourself or your dishes, carry water 100 meters away from streams and lakes and use small amounts of biodegradable soap. Scatter strained dishwater.

4. Leave what you find

- Allow others a sense of discovery by leaving rocks, plants, archaeological artifacts, and other objects of interest as you find them

- Leave areas as you found them. Do not dig trenches for tents or construct lean-tos, tables, chairs, or other rudimentary improvements. If you clear an area of surface rocks, twigs or pine cones, replace these items before leaving. It is appropriate to clean up the site for high-impact sites and dismantle inappropriate user-built facilities, such as multiple fire rings and constructed seats or tables. Consider the idea that good campsites are found and not made.

- In many locations, properly located and legally constructed facilities, such as a single fire ring, should be left in place. Dismantling them will cause additional impact because they will be rebuilt with new rocks and thus impact a new area. Learn to evaluate all situations you find.

5. Reduce Impact of Campfires

Fires vs. Stoves: The use of campfires, once a necessity for cooking and warmth, is steeped in history and tradition. Some people would not think of camping without a campfire. Yet, the natural appearance of many areas has been degraded by the overuse of fires and increasing demand for firewood. The development of lightweight, efficient camp stoves has encouraged a shift away from the traditional fire for cooking. Stoves have become essential equipment for minimum-impact camping. They are fast and flexible and eliminate firewood availability as a concern in campsite selection. Stoves operate in almost any weather condition—and they Leave No Trace.

- The most important consideration when deciding to use a fire is the potential damage to the backcountry.
- What are the fire danger for the time of year and the selected location?
- Are there administrative restrictions from the agency that manages the area?
- Is there sufficient wood so its removal will not be noticeable?
- Does the harshness of alpine and desert growing conditions for trees and shrubs mean that the regeneration of wood sources cannot keep pace with the demand for firewood?
- Do group members possess the skills to build a campfire that will Leave No Trace?

Lessening impacts when campfires are used:

Camp in areas where wood is abundant if building a fire. Choose not to have a fire in areas with little wood at higher elevations, heavily used areas, or desert settings. An accurate Leave No Trace fire shows no evidence of having been constructed.

Existing Fire Pits or rings:

The best place to build a fire is within an existing fire ring on a well-placed campsite. Keep the fire small and burning only for the time you use it. Allow the wood to burn completely to ash. Put out

fires with water, not dirt. Dirt may not completely extinguish the fire. Avoid building fires after rock outcrops where the black scars remain for many years.

6. Respect Wildlife

Learn about wildlife through quiet observation. Do not disturb wildlife or plants just for a “better look.” Instead, observe wildlife from a distance, so they are not scared or forced to flee. Large groups often cause environmental damage and disturb wildlife, so keep your group small. If you have a larger group, divide it into smaller groups to minimize your impact.

Quick movements and loud noises are stressful to animals. Travel quietly and not pursue, feed, or force animals to flee. (One exception is in bear country, where it is good to make a little noise so as not to startle the bears.) In hot or cold weather, disturbance can affect an animal’s ability to withstand the rigorous environment. Do not touch, get close to, feed or pick up wild animals. It is stressful to the animal and may harbour rabies or other diseases.

7. Be considerate of others

One of the most important components of outdoor ethics is to maintain courtesy toward other visitors. It helps everyone enjoy their outdoor experience. Many people come to the outdoors to listen to nature, and excessive noise, uncontrolled pets and damaged surroundings take away from the natural appeal of the outdoors.

10. Sit Spots

A Sit spot is a chance to unwind and focus on the world around you. The benefit of this is 2-fold. Our brains usually work on top-down processing (we see what we expect as our brain fills in the blanks). If you focus on a specific task, your brain stops filling in and you will see the world differently, so sit with your eyes closed and your back to the tree. Focusing on sound and all you can hear for 5 minutes will relax your mind because it is working on a task other than looking for things to worry about. We then focus on what you can feel - sun on the skin, twigs on the floor, and what we can smell -smoke from the fire, flowers etc.

Finally, open your eyes and work on what you can see, not just in your primary field of vision but in your peripheral view, to detect any movement from insects, trees, or animals. In 15 or 20 minutes, you will feel more grounded and relaxed. It also allows instructors to set up the next session without people around. Caution must be taken, and they don't go too far. They must stay separate, and whistles are helpful for them to carry so they can signal staff in an emergency or if they become lost.

11. Art

To create a simple picture frame, get the young people to lay four sticks on the ground, then look for materials to create a picture of how the day is making them feel.

Give them an unspecified amount of time to look for leaves, sticks and flowers. Adding time limits makes the young people want to rush.

Once their masterpieces are finished, invite them to explain what they have made.

12. Tree Identification

It is well worth getting some plant and tree identification books for the young people to use to find out what things are.

Google lens is also a handy guide for quick identification, but it can sometimes get it wrong
Start by learning about the trees in the woodland or outdoor space you use and their uses.

Identifying leaves is the easiest way. It all becomes more difficult in winter. Keep an eye on the trees, you know, and notice any changes in them throughout the year. Take note of roots, bark, buds, and the shape of branches.

Just add suspense and ham it up.

The Pink Jellybean

At the end of a long, dark road is a long, dark path.
At the end of the long, dark path is a lone, dark house.
And the lone, dark house has a single, dark door.
Behind the single, dark door is a long, dark hall.
At the end of the long, dark hall are some tall, dark stairs.
At the top of the tall, dark stairs is a long dark balcony.
At the end of the long, dark balcony is a big dark room.
In the big, dark room is a big, dark closet.
In the big, dark closet is a big, dark door.
Behind the big, dark door are some steep, dark stairs.
At the top of the steep, dark stairs is a dark, dusty attic.
In the dark, dusty attic is a big, dark chest.
In the big, dark chest is a small, dark box.
And in the small, dark box is a pink jellybean (or you can shout ghost)

Creak

“Creak”, a sound, faint, distant, but still heard.
“Crack”, something snapping, or being trampled on.
The man sits in his room, reading. The room is silent except for the quiet fire burning.
“Creaks. Just the house settling, nothing more.
“Crack”, Perhaps some small animals outdoors.
“Whoosh”, Was that the wind?
The man stands up and peeks out the window. A clear night is all he sees, the full moon brilliant in the sky. Laughing at his nervousness, he returns to his book.
“Creak”, the man now silently chuckles at the sound.
“Crack” how could he have feared some sounds.
“Whoosh”, it must be breezy out tonight.
“Thump” …did that come from within the house?

The man stares into the fire, trying to calm his jangled nerves.

“Creak” …

“Crack” …

“Whoosh” …will the sounds never cease?

“Thump” …” Thump” …” Thump”…

Closer, he thinks. The sounds are getting closer. He shuts the book, closes his eyes, and thinks of something besides his wild imagination.

“Creak”

“Thump”

“Crack”

“Thump”

“Whoosh”

“Thump” …” Thump” …” Thump” …a pause? The man moves quietly, slowly, towards the door with a nervous gait. “Thump” …a step back….” Thump” …yes, it’s getting closer. “Thump” …he stares at the door, trying to somehow see through it….” Thump” …he reaches slowly for the doorknob, handshaking, no longer able to take not knowing…” Creak”, a loose floorboard, near the door outside…” Thump”, he slowly opens the door…

“A scream” ……silence…

14. Relaxation

Relaxation is a great way to wind down and end a session, depending on the group's maturity. Work your way through the five human senses and then relate them to an animal sense to get the young people to concentrate.

Speaking in hushed tones, tell the young people to sit comfortably, close their eyes and concentrate on the crackle of the fire.

Now invite them to cup their hands to their ears and listen with fox ears. Can you hear the far-away birds? Can you hear the wind?

Now imagine your ears are on long pieces of string. What could you hear if you throw them back as far as possible? Now imagine you are throwing an ear left and right any different?

Concentrate on what you can feel. Imagine you have long fur like a bear, and it can handle every breath of wind, every shake of a tree. Where is the wind coming from? Do you feel warm or cold?

Think about all the things you have done here today. Visualise it in your mind. What was the best bit? Who do you think did the best today?

Now open your eyes and let them adjust to the light.

Imagine you have big owl eyes. Look up and straight ahead. Try not to move your eyes and concentrate on everything you can see in the corners and the peripheral. Are there any insects? Can you see the trees moving?

15. Photography

Because young people are now so attached to their phones, you can give them a list of photo challenges for the day to allow them to use their phone cameras. The list could contain things such as:

- A flower
- Someone smiling
- A berry
- The best tree
- Your favourite view
- An insect
- A spider
- Smoke from the fire.

At the end of the session, invite the young people to show their favourite photos.

16. Foraging Hunt

Once you know the area you work in well enough, you can list common plants and trees in your area. Make a list of things you would like the young people to find. You can also add pictures if you wish. For example:

- Hazel leaf
- A Daisy
- A bramble leaf
- And oak leaf
- The longest blade of grass
- A feather
- The smallest twig
- The biggest pinecone

17. Creating a Session Lesson Plan

Remember, delivering a Bushcraft/Forest school session in a school can be difficult if the young people have no idea what is expected of them. You may also be using a different teaching style than they are used to. It's good to set some ground rules for the course. The Forest school association recommends 6 weeks of forest school minimum, but you can run taster sessions for small groups.

Day 1: Rules and Shelter Building

Aim: Introduce the concept of Bushcraft/Forest schools; set out rules and expectations for the next six sessions; learn and practice different types of shelters; create mini shelters.

Materials: Paper, pens, wood discs, gloves, possibly a saw for the instructor to cut wood/sticks, knives, two sets of wood blocks sanded smooth, small tarps, string, pegs, mallet.

Session:

9.30 am Start with a warmup game that is not too physical (10 minutes)

9.40 am (20 mins)

Talk about the course and what they can achieve in the time they have, including the mandatory rules:

- Look after yourself, keep warm, dry, clean, safe etc.
- Help others - make sure others are warm enough etc.
- Respect Nature - only take what you need. Leave no trace

Now add those the young people consider they want for the course. Write these down. Areas they may wish to consider could be:

- Not talking over each other,
- respect for each other/property,
- no theft,
- not laughing at others,
- helping others.

The instructor writes down all the answers and narrows them down to a short simple list. For example:

- Be respectful
- Treat others how you want to be treated
  Only use phones in emergency
- Be on time
- No swearing
- Respect equipment and premises
- Be positive and involve everyone
- **Have fun and give it a go!**

10 am Quick game to help them focus: (5min)
10.10 am Shelters (20 mins)
Discussion: Why do we need shelter? Keep from exposure, hypothermia hyperthermia, dehydration, feel safe, fun, etc.

- What do we need to shelter from? Sun, rain, wind, cold, snow, animals,
- Where to build a shelter? Dry ground, away from water and compressed ground, wind direction, not too low or high up a hill
- Types of shelter? Natural shelters = Caves, Trees, leaves; Man Made Shelters = Warm clothes, sunscreen, tents, debris shelters, tarps, houses

10.40 – 11 am Break.
11 am Cut discs of wood and draw faces on them. These are to be used in their mini shelters later (20 mins)
Game (5 minutes)
Mini Debris shelters for the conker men. (30mins)
Build an example of a basic shelter frame: A-frame, Lean-to, and Tent shape
The group look for materials that would keep their conker men dry and warm using only natural materials (e.g. grass, twigs, leaves and sticks).
The group must also create a backstory and name for their conker person.
Add finishing touches by putting a pretend fire and seat etc. around the shelter.
It is then the job of the builders to give a tour of their shelter and show off its features and explain what it is made of, explaining the story of how they ended up living in the woods
(Game until lunch)

Lunch 12.30 – 1.30 pm

Afternoon session (30mins)

Split the group into two and have the first group practice knife skills by making tent pegs for their shelters, varying from a fully split and carved peg with guy line notch or just a point on the end of a stick depending on the ability of the group (With a smaller group you can give better instruction and stop anyone who is not doing as told).

Have the second group create log block towers/ castles. Using a small bag of randomly cut blocks of wood they are to build the tallest tower.

Switch the groups over and have the first group attempt to beat team 2's tower.

Next, demonstrate different tarp shelters - Lean-to, tent, A-frame, etc. Show how to hold up the tarp with poles and secure it down with string guy lines and pegs (will need teamwork).

Split into groups, and let the young people make their own style of shelters, then add a pretend fire and ask for a tour of what they have made and talk about the positive points of their build. For added fun do a rain test by flicking water on it.

Allow time for the group to sit and enjoy their shelters. Talk to the group about how these could be improved.

Then get them to pack away, folding the tarps, and taking all knots out of the rope. Stack poles, etc.

Team building tarp tent for four people:

- 1x square tarp
- 1x1.5meter stick
- 1x2 metre rope
- 4x Pegs

Get the young people to peg down one corner of the tarp closest to the wind, then the diagonally opposite corner is then pulled tight over the pole. Then have one person holds the pole and tarp

while another ties the rope around the pole and tarp and pegs it tight to the furthest point from the wind. Another young person holds the pole upright while the remaining two corners are pegged out tight.

Ask all the young people to get inside the tent. Throw/spray water over it.

Reflection

Ask the young people to describe the day for them.

Day 2: Peer Pressure and Fire Safety

Aim: Understanding the impact of peer pressure and how to handle it; fire safety and techniques,

Materials: cotton wool, Ferro Rods, marshmallows, biscuits, skewers

Session:

9.30am Start with a warmup game that is not too physical (10 minutes)

9.40 am Reflect on the last session and talk about the course and what they will be doing in today's session.

9.50 am **Peer Pressure.** (15 mins)

Play the Choices game. Line group up in the middle of the space and the facilitator calls out an option (listed below). Group members must choose one. Staff are to put pressure on the young people to change their mind.

McDonalds	v	Burger King
Love Island	v	Britain's Got Talent
Minecraft	v	Fortnite
Leave	v	Remain
Coke	v	Pepsi
PlayStation	v	Xbox
Netflix	v	Sky
Nike	v	Adidas
Apple	v	Android
Nuggets	v	Pizza
Indian	v	Chinese
Instagram	v	Snapchat
YouTube	v	Tiktok
Sainsbury's	v	Tesco's

Discussion: how did they feel about the game? Did they feel pressured at any time? What was that like? What is peer pressure? Who are your peers? examples of peers, and types of peer pressure

Tell: Jim's story – his friend moved away, he found new mates at the skate park, he showed off and felt bad.

Question: Have you ever felt pressured into doing things to be cool?

Devise a short play that illustrates the lesson on peer pressure. Eg.one lad decides not to go to school, calls round for his mate and persuades him to stay home too. Play computer games for a while, then get bored and hungry. Deciding they need some food, they discover there is nothing in the house, and they have no money. Set off for shop – meet a few friends along the way and persuade them to join in too. (Build up the boredom factor and need for excitement) They keep wondering where they are going to find some money and eventually decide that one of them will break into a house they have just passed where the old lady is in the garden, and they can see the door open. Others will keep watch while one of them goes in. As they begin to run away, one of them trips up and gets caught! Should he tell on the others or not?

Repeat the plays in a positive situation. E.g. Local play park is run down, with lots of broken glass on the ground, and young children getting hurt. One person decides it would be a good idea to clear it up and make a difference. Try to persuade the others to help. Other people in the group might put forward arguments for not doing it.

Focus game (5min)

Fire

Discussion: Why do we need fire? Warmth, light, boiling water, cooking, distress/ signal fires, keep animals/insects away, dry clothes, smoke bathing, clearing woodland for safety.

Relaxing.

Talk about fire safety: tie back hair, don't use hand gel before you go to the fire. No loose clothing. Where to build a fire? Away from anything that could catch fire, near water to save carrying water too far, never indoors.

Types of fire? Signal fire, pyramid fire, upside down fire, long lay fire, cooking fire, small water boiling fire; Natural tinder, birch bark, charcloth, thistle heads, dry grass.

Finish with an active game.

10.40 am – 11 am Break.

11 am Fire lighting session: discuss types of fire lighting - friction, flint, compression, solar, chemical fire, spark. Everyone has a go at lighting their own cotton wool with a Ferro rod, and other methods also.

12.30 - 1.30 pm Lunch

1.30 pm

Gather sticks for the main fire - matchstick size sticks, pencil size sticks.

Have four volunteers help: one lights the cotton wool, one outs on the tiny sticks, and other places the larger sticks and the last puts on the largest fuel sticks.

Make S'mores with Marshmallows and biscuits (check for possible diet issues).

Play Jack's Alight (pass glowing stick) (5 minutes)

Show how to put a fire out.

Reflect on the day.

Day 3: Communication and Water Purification

Aim: To make the young people aware of the effects of the different styles of communication; Introduce basic communication skills; Help to understand the importance of following instructions; be aware that there are different types of communication; Young people understand different communication skills; learn to trust people who might know more than them. Water – safety, filtering, boiling

Materials: top half of 2l soda waters bottles, hot chocolate mix and water. (Cups supplied by school/group)

Session

9.30 am Warm-up game that is not too physical (10 minutes)

9.40 am Reflect on the previous session (fire)

9.50 am Play line game - get into order by date of birth, house number etc – first talking, then in silence.

10 am Introduce communication skills (see eToolkit), including verbal and non-verbal communication. Ask the young people to list as many types of communication as possible. Discuss those listed and the importance of communication generally.

Work out ways of communicating without words

- Work out problems that occur by using the wrong word/s
- Show consequences of not listening or understanding.

Play a phone communication game: sitting in pairs, back-to-back, one person describes a picture and the other pair member draws what they hear being said. Show the result at the end of 5 – 10 mins.

WATER

Discussion: Why do we need water? The human body is 60% water, but our brain and lungs and heart are nearer to 80%

Dehydration is when your body loses more fluid than you can take in

Symptoms include thirst, feeling dizzy and lightheaded, tiredness, headache, dark pee, rapid heartbeat, lack of elasticity in your skin, low blood pressure, rapid deep breathing,

Where can we find water? “Valleys, lower ground, types of trees, follow birds in the morning, crushing plants, ponds, lakes, streams, rain, dew, condensation”

Once we find it is it safe to drink? Bacteria will make you sick and will dehydrate you faster”. All water needs to be cleaned by filtering….and then boiled to kill bugs or add chemicals.

10.40-11 am Break

11 am Water filtering. Using a 2 litre pop bottle with the bottom cut up, have each young person to build their own filter using natural materials to fill the bottle (e.g. grass, leaves, stones, moss, etc.)

Split the group into 2 or 3 teams and stack the filters while holding them above a clean pot. Pore muddy water into the top filter and the group works together to clean 2 litres of dirty water.
Judging is on:

- The minimum amount of water is lost
- The cleanest looking water

(Game until lunch)

12.30 - 1.30 lunch

After lunch: **Boiling water.**

Use new water and not the water from the filters as you have no idea what they could have picked to make the filters.
How to safely use Kelly kettle and Trangia.
Think about what method is better and which would be faster?
Make instant hot chocolate (school to supply cups).
Reflect on the day.
Clean area, Leave no Trace.
End with a game.

Day 4: Being Observant (rainy day session)

Aim: Why observation is important and how often we use it; navigation without a compass.

Materials: Rope

Session

9.30am Warmup game (10 minutes)

9.40 am Reflect on the session so far.

9.50 am discussion: What is observation? And how do we observe? - Listening, Seeing, Smelling, Feeling, Recording/remembering.

Observations about people?

- Clothes.
- Body language
- Acting differently
- Happy or upset
- Tired/unwell

How observant are you while playing a computer game?

Safety Observations?

- Crossing the road
- Walking in the dark
- Remembering the way. Planning the route
- Let others know where you are
- Could something cause an accident?
- Saying hello to dogs
- Should I do this on my own?
- Should we do this? Peer pressure
- Weather?
-

Why is it sometimes very difficult to observe what is happening? Distractions - what are they?

Classroom distractions?

- Noisy pupils, chatting
- people walking past,
- feeling tired or unwell

- need the toilet
- don't understand
- personal Distractions - worried about something, excited, etc.

Home distractions? Pets, Games, family, phones, music, chores

Outdoor distractions?

- Weather, too hot /cold/wet
- Hungry
- Thirsty
- Unwell
- Dark
- Lost
- Scared/worried

Finish memory game

10.40 – 11 am Break

11 am **Nature Detectives**

Scavenger hunt game: Individually find 10 leaves from 10 different trees. Bring them back and together decide which trees they are from.

Memory Game: Put 10 random items in a bag, pulling them out to show the group.

See how many items they can remember, including size, shape, and colour of each item.

Observe the weather: Cloud watching what shapes –

- What is the sky telling us? Coat or sunscreen?
- Why is it always important to check the weather?
- How to predict the weather, red sky night morning

Tracking animals - Signs, tracks? Burrows? Droppings? Runs? sleeping spots? Food debris?

What can birds tell us? Where food is**,** where water is**.**

Sit spot **-** sit and listen to everything. Note what you hear

Draw a map of the school field from memory with as much detail as possible

Rope drawing game

Draw something with the rope and the group needs to guess what it is

(Game until Lunch)

12.30 - 1.30 pm lunch

Afternoon session: **Natural Navigation without a compass**

How to use a sun stick?

On a clear day, you can find the direction in 20 minutes. Explain how the sun moves each day, including where it rises and sets?

What can trees and plants tell us?

- Phototropism the way plans grow towards the sun.
- Flowers too Daisy means days eye it will always look at the sun even if its cloudy?
- Where they grow, willow means water
- Birch are located outside of woodlands. How are they planted?
-

Moss and lichen - Some mosses dislike being in direct sunlight so they will grow in shady spots on the back of trees away from the sun indicating north and the sun is in the south.

Try and work out where north is on your map?

Play: Land, air, sea, game or Head & catch

Reflect on the day.

Day 5: Teamwork, Team Games

Aim: understanding the importance of teamwork, working as a team.

Materials: football, 23 tent pegs, string, 30 m rope

Session:

9.30am Warmup game (10 minutes)

9.40 am Talk about the course and reflect on the last session.

9.50 am Elephant game – with football.

10.00 am Discussion about teamwork – ask what they think teamwork is and get them to suggest what they think a good team is. (Manchester United, fire brigade, McDonald's). Discuss ALL the people and jobs that make a good team. Everyone from the top price players, to the people who clean the toilets, sell the food etc etc.

List eight (8) positive outcomes as a result of working in a team.

Play: Shrinking table rope island, dividing the group into 4's and each chooses to be one of four (4) options – DOER, SUPPORTER, THINKER, CHALLENGER. As a team reach as far over the rope as possible

Discuss the importance of planning and how a group can develop a good plan. Discuss the importance of STOP - stop think options plan.

10.40 - 11.00 am **Break**

11 am**. Rope games.**

Undo knots: 30m rope with 30 Knots that the group must undo as fast as possible.

Step over the line: as a team at the same time.

Get in order of height

Rope shapes: tie a loop and the group need to display square, triangle, etc.

Rope drawing Pictionary: whisper to one young person what to draw and the others guess

Land, sea, air, boat, plane, train: one side island, one is sea jump for air

Limbo

Chase the snake: follow the path of the rope as someone runs with it

Tron run: using two ropes, one team tries to trap the other team

Pick up bucket

Long jump

Stretcher

Helicopter

Cat and mouse

Skipping games

Ball games

Name game/ pattern ball

Head of catch

Piggy in middle

Team Games

Minefield game. 23 Tent pegs, string

Name game tag, Cones

Hay Fishy Fishy!

Day 6: Final Day

Aim: Bringing together what have learnt over the previous five sessions; for the group to become self-sufficient; heighten the enjoyment of the outdoors; the process young people need to go through to achieve comfort in the outdoors. Students will complete the following:

- good tarp shelter, with own made pegs
- fire pit and collected sticks
- bowl of boiled water
- complete a scavenger hunt list

Materials:

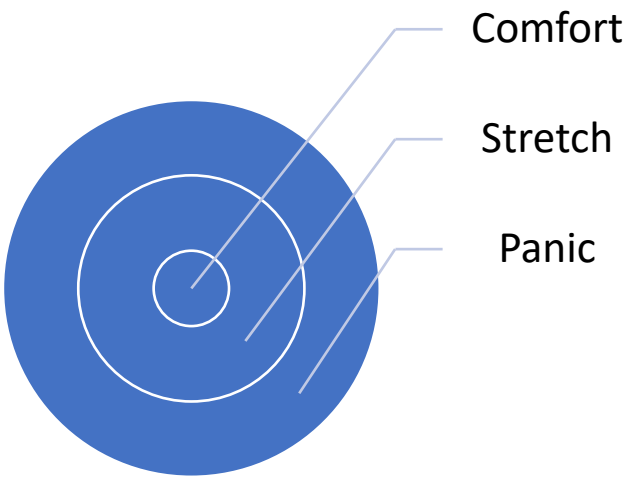
- Tarps
- Wood
- Cutting materials cooking containers
- Fire starting equipment
- gloves

9.30 am Begin with a warmup game that is not too physical (10 minutes)

9.40 am Talk about the course and reflect on the last session.

Split into even numbered groups and have each group member decide on their roles for the day and the order of the goals.

Discussion: Comfort Zones. Draw three circles within each other on a piece of paper.



Talk the group through each zone, starting with what things are comfortable (e.g home, bed, school, meals, computer, etc.), followed by what stretches them a little bit and get them to put forward ideas of what they might try to do to achieve something they wouldn't normally do. For the final zone - Panic - what would make them panic? Ask them for ideas as to how would they deal with it.

Suggest that they always need to take advantage of an opportunity and push themselves to achieve.

10.40 - 11.00 Break

11 am Let the group explore the area and work on their goal list in the order they chose.
Throughout this time ensure that:

- the camps are in the same area so you can keep an eye on their fire pits.
- the fire's distance from the shelter is not too close, otherwise, ask them to dig a new hole

Remembering the Rule of 3s, shelters should be built first. You can aid the Peg making knife skills in a safe area, while the rest of the group is busy with other tasks.

Fire lighting kits can now come out and gloves for the boiling pot.

Get the groups to put their pots on their fires at the same time. You can then have a race to see who can get to a rolling boil first.

To wrap up the day's activities, do s'mores again or show the group how to cook popcorn with sieves, once they restock their fires.

At the end of the session (pre-determined time) make sure all have had a lunch break (factor in themselves as to when able to do). Finish off with looking at each campsite and finalising who won the scavenger hunt winners.

18. Resources

Following are suggested books, websites and other valuable things that will help you prepare your bushcraft lesson plans. This list is not exhaustive, but it is an excellent place to start.

Bunting, C. (2006) *Interdisciplinary Teaching Through Outdoor Education.* Human Kinetics, United Kingdom.

Ewert, A. and Davidson, C. (2017) *Behaviour and Group Management in Outdoor Adventure Education. Theory, Research and Practice.* Routledge, London.

Martin, B., Breunig, M., Wagstaff, M. and Goldenberg, M. (2017) *Outdoor Leadership. Theory and Practice. Second Edition.* Human Kinetics, Illinois.

Parry, J. and Allison, P. (ed) (2020) *Experiential Learning and Outdoor Education. Traditions of Practice and Philosophical Perspectives.* Routledge, London.

Robb, M., Mew, V. and Richardson, A. (2015) *Learning with Nature. How to-guide to inspiring children through outdoor games and activities.* Green Books, United Kingdom.

Wood, J., Westwood, S. and Thompson, G. (2015) *Youth Work. Preparation for Practice.* Routledge, London.

19. References

Bunting, C. (2006) *Interdisciplinary Teaching Through Outdoor Education.* Human Kinetics, United Kingdom.

Martin, B., Breunig, M., Wagstaff, M. and Goldenberg, M. (2017) *Outdoor Leadership. Theory and Practice. Second Edition.* Human Kinetics, Illinois.

Robb, M., Mew, V. and Richardson, A. (2015) *Learning with Nature. How to-guide to inspiring children through outdoor games and activities.* Green Books, United Kingdom.