**Activity: Cooking on a methylated spirit fuelled stove e.g. Trangia® stove**

**Learning intention:**

How to use a methylated spirit fuelled stove safely.

**Description:**

* Choose a sheltered outdoor space where there is enough room for the whole group to work.

Ask students to identify:

* what they need to think about when choosing a place to use a cooker. (Flat space, out of the wind, away from flammable material such as long grass or dried leaves and designate a kitchen area.)
* what they need to think about when moving around a cooker. (Always walk carefully, set up a cooking circle which people can only walk around the outside, keep the kitchen area tidy with only necessary equipment in the area.)
* what is one of the features of modern outdoor clothing? (Highly flammable. Keep clothes tucked in.)
* what will they do if a cooker is knocked over or grass catches fire. (E.g. have water/sand/dirt nearby to put out the flames. Note: which is best if the fire is cause by oil or fat?)
* what will they do if someone is burnt? (Have water and first aid supplies accessible.)
* Show students how to assemble the stove and how to fuel it.

Ask students:

* what do they do if they spill fuel? (Mop up if possible, shift the cooker to a different area, or wait 10 to 15 minutes for the split fuel to evaporate before lighting the stove.)
* what would be a good thing to do with the fuel bottle once the cooker is filled? (Designate a fuel station away from the cookers and the food. Make sure the cap is tight on the fuel bottle.)
* What to do if the cooker runs out of fuel? (As the cooker is running out of fuel the flames may be very clear so it can be difficult to judge if the cooker is still burning. Once the fuel bowl is cool enough to touch, move the cooker away from the cooking area – about 5ms, refuel to about 2/3 full, close the fuel container and carefully take cooker back to the kitchen area, resume cooking. Remind students when the fuel bowl is cool enough to touch, it is cool enough to refuel.)
* Students assemble cookers. Explain that a ‘billy’ is a popular name for any container in which water may be carried and boiled over a campfire. Show them how to lift a billy of water onto and off the cooker using the billy grips. Show students how to use the damper to put out the flame.
* Students light their cooker and boil a billy of water – if you have time make and drink a hot chocolate. Ask students to turn off the cooker once the billy has boiled.
* Dismantling the cooker: once the fuel blow is cool, students pour excess fuel back into fuel bottles, close and put back in the fuel depot. Put the cookers back in the kitchen circle. Drop a lit match into fuel bowl to burn out excess fuel – let this burn down. Once bowl is cool to the touch pack up the cookers.

**Safety considerations:**

* Select site carefully.
* Remind students to be aware and move carefully when using cookers and hot food or fluids.
* Have water/sand/soil available to put out a fire.
* Have water to deal with a burn.
* Supervise closely.
* Download ‘Let it Breathe – Camping Appliance Safety Guide’ pamphlet from the Mountain Safety Council [www.mountainsafety.org.nz/resources](http://www.mountainsafety.org.nz/resources)
* See the National Incident Database for information on incidents associated with cookers and hot food/liquids (Live link to NID <http://www.incidentreport.org.nz/>).

**Equipment:**

* Enough cookers for groups of no more than four students working together.
* Bucket of water in case of burns.
* Bucket of water/sand/soil in case of fire.
* Hot chocolate and cups.

**Location:**

* A sheltered, flat area.

**Time:**

* 45 – 50 minutes.

**Student processing/reflections:**

* Students identify key safety messages at the end of the session.
* Students develop an instruction pack for using cookers that can be given to other groups.