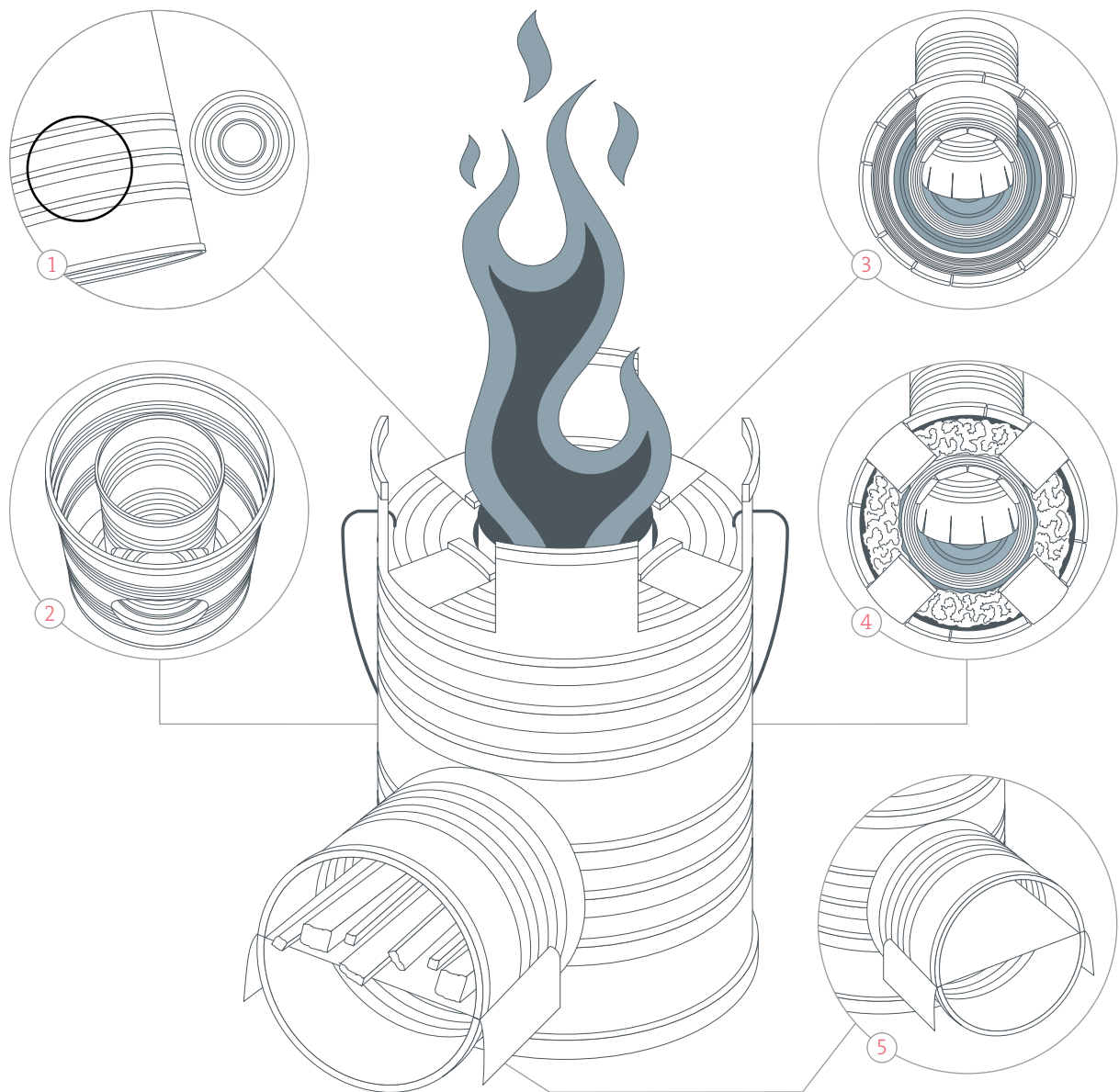


BUILD A TIN-CAN ROCKET STOVE

Combining three all-time favourite Scouting activities – building, cooking and firelighting

SUITABLE FOR CUBS, SCOUTS AND EXPLORERS



1 Ask a young person to draw a circle on the side of the large can, around 1cm from the base, using a medium tin can as a template. Use your metal cutters to cut this circle out. You could also use a mini-saw if you have access to one, but make sure you use protective eyewear and gloves.

2 Ask another young person to use the cut-out section of the large can as a template – being mindful of the sharp edges – and draw a circle on a medium can. Cut this out. Place the medium can in the centre of the large can, lining up the holes.

3 With adult help, get another young person to cut off the rim around the top of a second medium can, before cutting down from the top at regular intervals to create 1.5cm-long tabs. Give one of your young people some protective gloves before asking them to carefully bend the tabs inwards and inserting the can through the holes in both of the other cans. Once inserted, the tabs can be bent upwards to fix the tin in place.

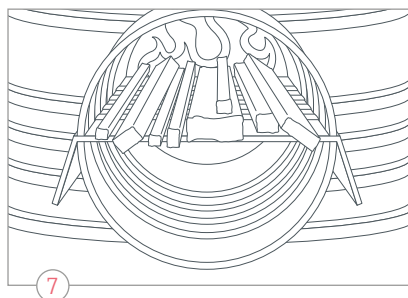
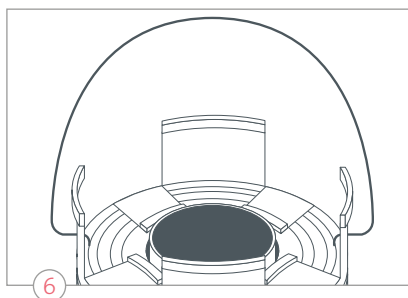
4 Next, ask them to trace another circle in the middle of the lid of the large can. Cut it out to create a metal ring. Between them, they should cut around eight tabs into the top of the large can. The space in-between the large and medium cans can be filled with insulation and the metal ring should be placed on

top. Ask two young people to hammer down four of the eight tabs to hold the metal ring in place. When choosing which tabs to hammer down, make sure one is left on either side of the stove for the handle to be fixed to.

5 To make a shelf for the stove, ask a young person to measure the width of the third medium can before removing the base and cutting down one side. It can then be beaten flat and a rectangle can be marked out at the same width at the tin can, but with two flaps at one end. Ask another young person to make two parallel cuts in the mouth of the stove, the same depth as the flaps, then insert the shelf and fold down the flaps.

6 To make a handle, ask a young person to straighten out a wire coat hanger and bend it into an arc. Pierce or drill a hole through two of the tabs, thread the ends of the hanger through and bend with pliers to secure.

7 The stove is ready to use! You can paint it with high-heat spray paint if you want a smart finish. If not, build a fire by putting small pieces of coal and shredded newspaper in the centre and long, thin pieces of wood or kindling on the shelf so that it reaches the flames. Keep feeding the stove and make sure that anyone who handles the stove is wearing heatproof gloves.



TIME NEEDED

90 minutes

EQUIPMENT NEEDED

- Marker pen
- Large tin can with lid (2.5/3kg) from school kitchens or caterers
- Medium tin cans (800g) x 3
- Protective gloves
- Metal cutters and hammer
- Insulation (eg sand, clay, foam)
- Wire coat hanger
- Pliers
- Drill or Swiss Army Knife
- High-heat spray paint (optional)
- Heatproof gloves
- Coal, newspaper, kindling etc

THIS ACTIVITY LINKS WITH THE FOLLOWING BADGES



Cub Backwoods
Cooking Activity
Badge



Cub Our
Outdoors Challenge
Award



Scout Outdoor
Challenge Award



Scout Camper
Activity Badge

OUTCOMES

Your young people will love working as a team to create this portable stove, while at the same time learning how to use tools responsibly and safely.

DOWNLOAD THIS PAGE

Find this and other great activities at scouts.org.uk/magazine.

MAKE WATER DRINKABLE

Purify even the dirtiest water with this charcoal filter

SUITABLE FOR **BEAVERS**, **CUBS**, **SCOUTS** AND **EXPLORERS**

1 Start by making charcoal with your section. Ask them to build and light a wood fire, making sure it gets really hot, and then extinguish it with earth. Once the charcoal has completely cooled, your young people can grind it up into small pieces. This is a messy job so make sure their clothing is protected.

2 Cut the base off of a plastic drinks bottle and drill or pierce a hole through its lid. Now, cut the second two-litre bottle in half.

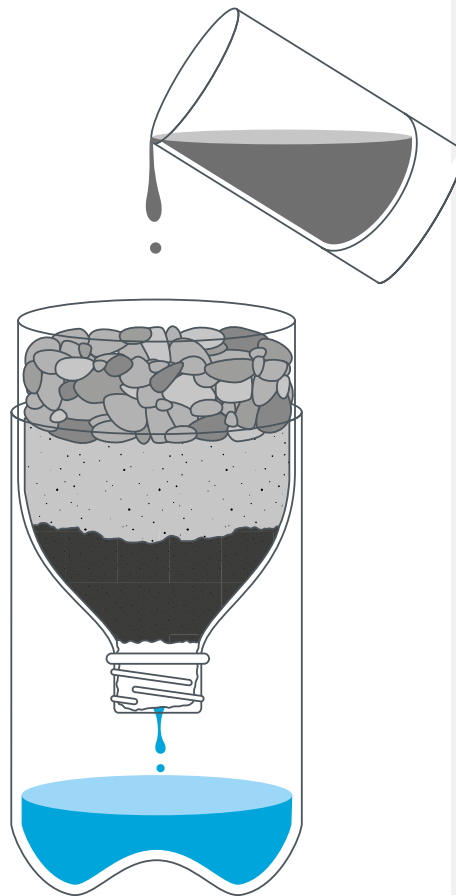
3 Taking the bottle with the pierced lid, ask your Scouts to line the inside of the lid and neck with grass or a piece of cotton. Next, they should pack the crushed charcoal in as tightly as possible, half-filling the bottle. Now, ask the young people to pour in a few inches of sand and pack it down firmly. They can now add the final layer of small stones or pebbles.

4 Next, they can place the bottom half of the other plastic bottle base-down onto a flat surface and rest the charcoal-filled bottle inside it.

5 Slowly pour in your dirty water, being careful not to displace the sand, and let it percolate through the filter. The water should drip from the

bottom; if it gushes out, your layers aren't packed tightly enough.

6 Run the water through the filter twice more and then boil it for a few minutes to make sure it's sterilised. You can even add a small piece of charcoal to the boiling water for a cleaner taste.



TIME NEEDED
60–90 minutes

EQUIPMENT NEEDED

- Wood
- Fire-lighting materials
- Earth or sand
- Protective clothing
- 2-litre plastic drinks bottles x 2
- Hand saw or sharp scissors
- Drill or Swiss Army Knife
- Grass or cotton (a piece of T-shirt)
- Small stones
- Saucepan

THIS ACTIVITY LINKS WITH THE FOLLOWING BADGE



Scout Survival Skills
Activity Badge



Scout Outdoor
Challenge Award



Scout Camper
Activity Badge

OUTCOMES

You can use this activity to spark discussion about the quality of water globally and link it to our charity partner, WaterAid.

TAKE IT FURTHER

Use this activity on camp to fulfil badge requirements, or compare different versions of natural water filters to see which is the best.

DOWNLOAD THIS PAGE

Find this and other great activities at scouts.org.uk/magazine.

CREATE ORIGAMI BOOKMARKS

Help your section fold, fold and fold some more to make these quirky paper creations

SUITABLE FOR **BEAVERS**, **CUBS** AND **SCOUTS**

1 Ask your young people to take a square of paper and position it in front of them so it looks like a diamond, then ask them to fold the top half up to create a triangle.

2 Next, show them how to take the right-hand corner and fold it up to the top point of the triangle and then do the same with the left-hand corner. This should leave them with a small diamond shape.

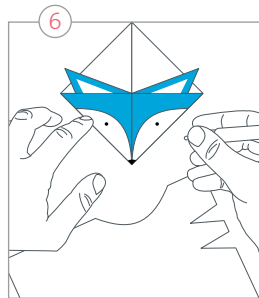
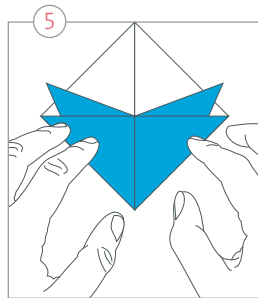
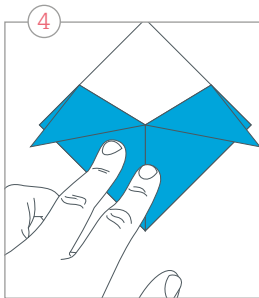
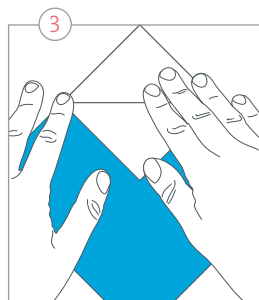
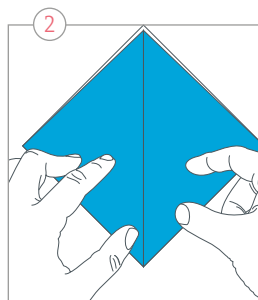
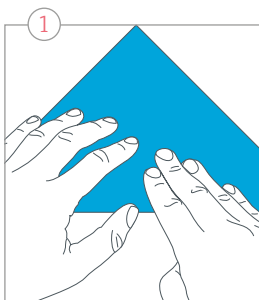
3 Now they should open those two folds out so they have their triangle shape again and fold down

the top point to centre of the bottom of the triangle.

4 Ask them to fold each corner back up to the top point of the triangle and then fold it back on itself.

5 Next, they should tuck the top of the ear backwards into the concealed flap behind it so that the point of the ear flips upwards. Repeat this on the left-hand side.

6 Now they can decorate their fox with coloured pens or cut-out pieces of plain paper.



TIME NEEDED

20 minutes

EQUIPMENT NEEDED

- Squares of paper (15cm x 15cm)
- Colouring pens or pencils

THIS ACTIVITY LINKS WITH THE FOLLOWING BADGES



Beaver Creative Activity Badge



Beaver My World Challenge Award



Cub Our World Challenge Award



Scout International Activity Badge

OUTCOMES

This simple but effective activity will not only create something fun and functional for your young people to keep, or give to others, it will also offer a great opportunity to discuss the origins of origami, its relevance as an art form and its significance within Japanese culture.

TAKE IT FURTHER

Why not try more ambitious origami projects, such as a Japanese paper crane (or orizuru), and learn the Japanese name for each one? Scouts could learn other Japanese greetings and phrases at the same time. They could also try experimenting with scale, attempting to complete very small or very large origami projects.

DOWNLOAD THIS PAGE

Find this and other great activities at scouts.org.uk/magazine.