

### School grounds focus:

- Where are we now?
- Where do we want to be?
- How can we get there?
- Making the changes

### Curriculum focus:

- Science – helping plants to grow.
- Environmental studies – sustainable agriculture.
- Geography – use of bag gardens in Africa.
- Art – decoration of bags.

### Purpose of this activity:

- To allow pupils to design and maintain their own 'garden'.
- To compare food in the UK and in an African country.

### Equipment / materials needed:

- A hessian bag per 'garden'.
- Large used cans or squash bottles, with top and bottom removed to make a tube of 12cm or more in diameter.
- Small stones or gravel, sufficient to make a column in the middle of each bag.
- Mixture of topsoil and composted material, plus some well-rotted animal manure if available, to fill bags.
- Stakes to support bags.
- Chalk to mark lines on bags.
- Seeds or seedlings.

### Preparation:

- Explain how bag gardens are multi-storey vegetable gardens in a sack, ideal for farmers with a limited supply of water and only a small plot of land. The central column of stones provides drainage and aeration. African families put them near their homes, where they can easily be maintained by children.
- Discuss with your pupils the best positions for the bags (sheltered, sunny, with access to water) and what plants they would like to grow (the top is great for climbing plants).

### What to do:

- Roll down the edges of the bag and place the tube in the bottom. Fill the tube with stones. Put a mixture of soil, compost and manure around the outside of the tube and press in slightly (but not too hard!).

- Now remove the tube. This should leave a circle of stones in the middle of the soil mix. Keep repeating step 1 and 2 until...
- ...the bag is full of soil with a full column of stones at the centre. Try and keep the bag upright as you go!
- Hammer some stakes into the ground to support the bag.
- Using chalk or charcoal, mark out four or five horizontal lines around the bag, equally spaced. Carefully cut some holes in the bag, shaped like a '7' along these lines where the plants will go. Don't place them exactly above each other, but give the plants enough room to grow. The holes should be just big enough to get a hand in.
- Plant the seeds, or seedlings, into these holes and at the top of the bag. Make sure that they are held in place by the soil.
- Water the garden fairly generously at first and then water from above onto the column of stones regularly, preferably with recycled water. Use an organic feed and watch the bag produce some amazing results!

### Extension:

- Decorate the Bag Garden with paints or fabrics.
- Compare plants under varying conditions, look at growth rates, percentage changes, fractions of original seeds becoming plants and presenting data.
- Have a crop measuring, tasting and food making day, inviting parents along to celebrate your pupils' vegetable crop!

### Follow-up:

- This worksheet is based on the African Gardens Competition run by Send a Cow. For further details and additional activities please go to the schools section of [www.sendacow.org.uk](http://www.sendacow.org.uk)

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# Make a bag garden

- Look for a good place to put your Bag Garden.
- Is it sunny, is it near water and can you get to it easily?
- Think about what plants you would like to grow.
- Do you want to eat them, look at them for colour, grow tall or climbing plants in the top?
- Do you want to decorate your Bag Garden?

## Six steps to building a Bag Garden

