

no lo tires, **conviertelo en abono**  
ne le jetez pas...**compostez-le!**

27

# don't waste it.... compost it !

## Composting

Composting is conservation and recycling in action. It saves on waste, cuts the cost of rubbish disposal, improves the soil, feeds plants and lightens the dustperson's load.

Gardens always produce a lot of waste which can be recycled. Setting up a garden with teachers or students, in a botanic garden or school, provides you with an excellent opportunity to do a project on composting. The end result of course can be dug back into the garden!

### Activity 1

#### What is biodegradable?

Make a collection of different things and discuss how degradable they are. Test these predictions by burying them in the soil and then checking them every week or so.

Discuss what conditions help things to degrade. Look at different packaging materials and compare them with nature's packaging materials such as banana skins and pea pods.

### Activity 2

#### Make a compost heap

A good compost heap design is

one which should be easy to fill, keeps rain off the compost, lets air circulate, keeps heat in and is easy to empty when ready.

Divide the class into groups and set them the task of designing and building a compost heap. Give them a list of requirements and a selection of materials they can use.

### Activity 3

#### What happens inside the compost heap?

As compost begins to decay the temperature in the heap may rise rapidly. This is due to the activity of all the bacteria and fungi. Children can use thermometers mounted on a stick to measure the temperature inside and outside the heap and compare this over time. Discuss with them what is happening. Get the children to make a collection of minibeasts found inside the compost. An easy way to sort and collect minibeasts is to use a Tullgren funnel.

Depending on the weather conditions, compost can be ready to use in six weeks. Get the children to see how quickly they can make compost.. What happens if they leave it for longer? Can they think of ways to "help" the compost rot more quickly?

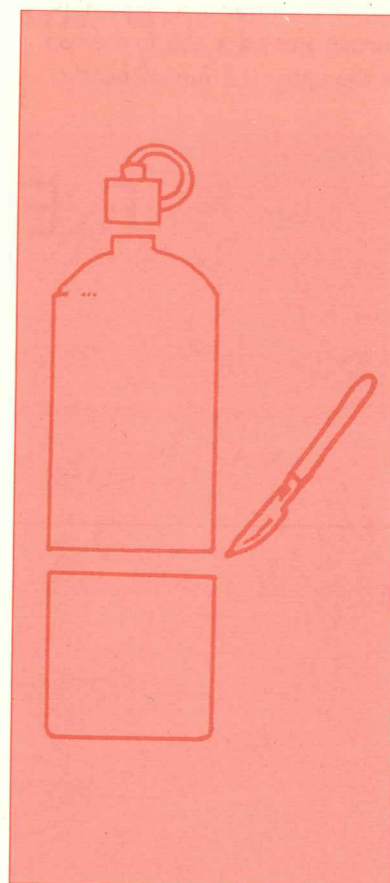
## Tullgren funnel

### Equipment

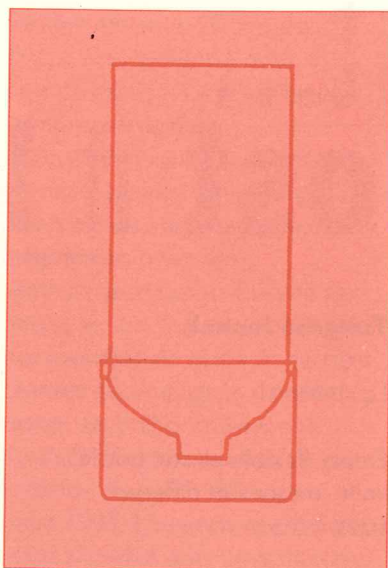
Empty flexible plastic bottle, knife, meshes of different sizes, lamp.

### Making it

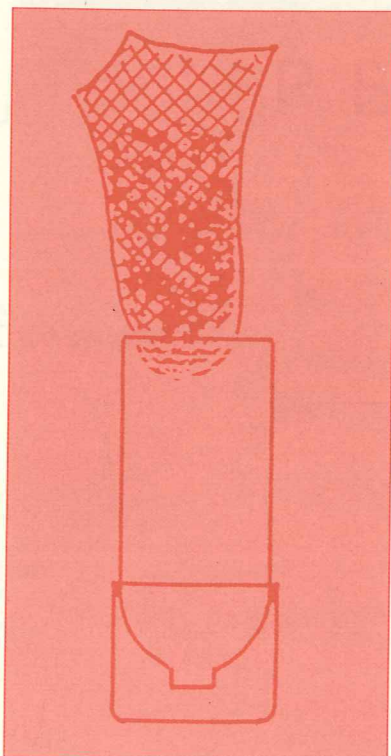
! Cut the plastic bottle two-thirds down from the top to make a long 'funnel' and a short 'container'.



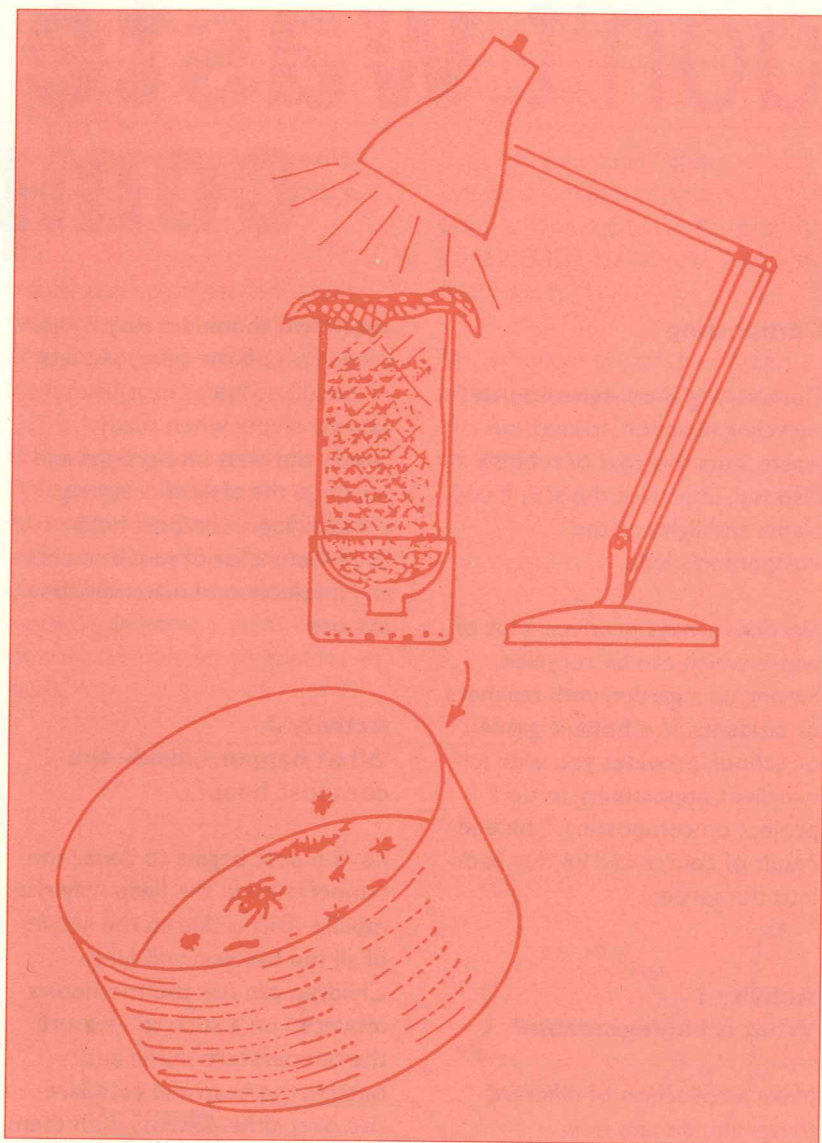
**2** Ensure the cap has been removed and then place the funnel section (narrow section downwards) into the container.



**3** Cut a piece of small wire mesh the same diameter as the top of your funnel (ie. so that it fits inside) and then push it as far down as it will go. If you can't find suitable wire mesh then put the soil or leaf litter in a piece of net curtain and place this in the top of the upturned 'funnel' bottle.



**4** Fill the funnel with your soil sample and then shine a lamp above the funnel.



#### Using it

**1** Be careful when positioning the lamp; if it is too close to the sample the organisms will be killed before they can escape to the bottom. It is also a good idea to place some dampened paper in the collector to keep the minibeasts alive.

**2** Different sized meshes can be made by folding over, doubling or trebling the wire mesh. This will allow a basic sorting of animals according to their size.

**3** If you cannot find any wire, try using leaf litter which is coarse enough not to fall through the funnel.

#### Adapting it

Try comparing animals from different points in the soil profile, or from different parts of a compost heap.



### Activity 4 Compost drama

Make a set of cards (one for each participant) with four different colours representing the four main groups of compost organisms:

- fungus (10 - 60°C)
- cool-loving bacteria (10 - 50°C)
- heat-loving bacteria (40 - 70°C)
- minibeasts (10-30°C)

On each card write down the minimum and maximum temperature they can work at. Vary each slightly within the range and include some information about each organism; what it eats and how it might move.

- Mark out a 'compost heap' in the botanic garden or the classroom.
- Ask the 'organisms' to stand around the side
- Choose a leader to call out the week numbers and the temperature of the compost heap using the chart below.
- When the leader calls out, the 'organisms' have to decide if they can live in the heap. If they can they get in and move around according to their role.
- The leader continues to call out until the end of the 12th week when the compost is ready to "use". During the weeks organisms will move in and out of the compost heap.
- Discuss with the children what was happening to the compost heap and how compost is formed.

Week	1	2	3	4	5	6	7	8	9	10	11	12
Temp (°C)	15	30	50	60	70	70	60	50	40	30	20	15

You can reduce the rubbish your household produces by 30%

80% of rubbish could be recycled

Anything which has lived and died can be composted

A compost heap may get as hot as 80° Celsius

Plants love compost and it improves the soil

The above teaching activities have been reproduced thanks to The Soil Association, 86 Colston Street, Bristol BS1 5BB, UK and The WATCH Education Service, The Green, Whitham Park, Waterside South, Lincoln LN5 7JR, UK.

## ▲ résumé

### Compost

Une palette d'activités a été créée pour aider les enfants à apprendre ce qu'est un compost et comment il fonctionne. Une des activités consiste à créer et construire un compost, puis de rechercher ce qui est biodégradable et ce qui ne l'est pas. Dans une autre activité, les enfants découvrent ce qui se passe dans le compost, en faisant des expériences avec divers matériaux.

Les élèves doivent contrôler les organismes présents dans le compost lorsqu'il atteint différentes températures. Pour d'autres informations et des traductions complètes, contactez: BGCI Education Programme

## ● resumen

### Abono vegetal

Se han elaborado una serie de actividades para enseñar a los niños cómo hacer abono vegetal. Una actividad se basa en el diseño y construcción de la pila de abono, así como investigar qué es biodegradable y qué no. En otra actividad los niños descubren qué está ocurriendo dentro de la pila de abono experimentando con various materiales. Los niños deben controlar los organismos presentes a medida que cambia la temperatura del abono. Para más información y traducción completa de la actividad, por favor contacte con el Programa de Educación de BGCI.