

# DESIGN TECHNOLOGY learning springboards

Pappus

## Food Growing

### Construct a 'keyhole' garden

See the *Pappus* Science Learning Springboard - Food Growing for ideas and sources of further advice for growing plants in schools.

This image is of a 'keyhole' garden.

- Research why this structure is important in hot, dry countries.
- Construction of a keyhole garden is a great project that combines geography, science and Design Technology.



Keyhole garden



## Grow a real walking stick

### Plan, grow and harvest a structural material

The stems of kale can be made into walking sticks; this project requires planning ahead, as the kale plants need to be grown for around year, starting in February, before they can be made into walking sticks.

Kale is also known as Jersey cabbage or Portuguese walking stick cabbage, and its leaves can be harvested throughout the year. They are delicious finely chopped and steamed or shallow fried.

Seeds and planting instructions are widely available – this image is from [www.homestill.co.uk](http://www.homestill.co.uk)



Walking stick kale



## Testing growing media with radishes

### Investigation into growing media

**Aim:** Plan an investigation with a focus on the material (substrate) that supports strong root growth. Radishes mature in 2-3 weeks so are a useful plant to use for this investigation.

#### Activity

- Pupils choose a variety of substrates in which to sow radish seeds - such as sand, compost, garden soil, gravel - while keeping the growing conditions and watering regime constant across all the seedlings.
- Record the percentage of seeds that germinate, rate of growth, and weight of produce after a set amount of time, in order to make hypotheses.
- If the resources are available, test NPK and pH levels for each substrate.
- Pupils could also vary the nutrients for a duplicate set of substrates. (using plant food in the watering).

## Edible flowers

### Research and grow flowers for a purpose

**Aim:** Explore which flowers are edible, and how they can be used in recipes.

#### Resources:

- RHS Edible Flowers download in the *Pappus* resource library.

#### Exploration suggestions:

- Nasturtium: mildly peppery leaf and flower for salad.
- Dandelion leaf for salad; cover some leaves with a light-excluding plate to make them go pale whilst they are growing, then compare the taste of pale leaves and green leaves.
- Pot marigold: petals in salad or cooked rice.
- Rose-petals in ice cubes or summer drinks.
- Rocket flowers: sprinkle over rice or baked potatoes

