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Source of porous pots

Posted by Anonymous on Tue, 2014-08-19 20:56

Source of porous pots: Does anybody still do the 'porous pot' activity? It involves a plaster of Paris pot, with a rubber stopper and glass tube, held upside down. The glass tube sits in coloured water. A fan heater is blown over the pot, water evaporates, drawing up water from the beaker, as shown by a bubble moving up. This is a simple reliable way of showing transpiration under a variety of conditions

The more technical way is using a potometer: google 'potometer transpiration' images, (not 'potentiometer' as that will take you back to first year physics days and really scare you!). However the porous pot method is far easier to use. Southern Biological does not have them, neither does Carolina supplies it seems. Does anybody do this activity still? it was a great one to do.

Voting:



No votes yet

Australian Curriculum:

Multi-cellular organisms contain systems of organs that carry out specialised functions that enable them to survive and reproduce

Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems

Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment

Biological Sciences

Year Level:

8

9

Senior Secondary

Laboratory Technicians:

Laboratory Technicians

Showing 1-2 of 2 Responses

Answer by labsupport on question Source of porous pots

Submitted by sat on 21 August 2014

Porous pots are readily available from a number of suppliers. See our "[School science suppliers](#)" resource: which is an online spreadsheet of school science suppliers and businesses which provide laboratory equipment, resources, supplies and other merchandise suitable for school science laboratories. A quick search has shown the porous pots available from the following suppliers and possibly other general scientific suppliers:

Science Supply Australia: <http://www.ssapl.com.au/> (Link updated September 2018)

Haines: <http://www.haines.com.au/index.php/catalogsearch/result/?q=porous+pot>

Serrata: <http://www.serrata.com.au/products/search?search=porous+pot>

Answer by teachersupport on question Source of porous pots

Submitted by teachersupport on 25 August 2014

Curriculum Links

Links to the Australian Curriculum: Science - Plant transport systems could be taught as part of the Biological Sciences sub strand at Year 8 or Year 9.

Science Understanding/ Biological Sciences

Year 8 - *Multi-cellular organisms contain systems of organs that carry out specialised functions that enable them to survive and reproduce (ACSSU150)*

Year 9 - *Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment (ACSSU175)*

Year 9 - *Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems*

(ACSSU176)

Transpiration is still part of the senior secondary biology course.

Alternative Activity

An alternative activity to using porous pots to demonstrated transpiration is to use celery sticks in water:

- Fill two measuring cylinders with water.
- Add red food colouring to one and blue food colouring to the other.
- Cut the bottom end off a stick of celery with leaves.
- Make a vertical cut 15 cm along the length of the celery middle.
- Place the celery stick with one end in the red water and the other end in the blue water.
- Note the water levels in the measuring cylinders.
- Leave for 24 hours.
- Note the colour of the leaves.
- Record how much the water levels have changed in the measuring cylinders.
- Cut a small section of celery and examine the xylem.

Variations include:

Blow a fan over one celery stick.

Leave one celery stick in the sun.

Place a clear plastic bag over a celery stick.

Source URL: <https://assist.asta.edu.au/question/2440/source-porous-pots>