

Let's Get Growing

Australian Curriculum Science Year 6

Science Understanding

Biological sciences

The growth and survival of living things are affected by the physical conditions of their environment(ACSSU094)

Science as a Human Endeavour

Nature and development of science

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena(ACSHE098)

Communicating

Communicate ideas, explanations and processes in a variety of ways, including multi-modal texts (AC SIS110)

Summary

This is a combined activity with Grade 6 students supporting Kindergarten students in germinating native seed linking with Greening Australia's big biodiversity Hot Spot project in the Midlands of Tasmania.

Tuning In

What do children know about seeds and trees?

Go for a walk in the school grounds looking for seeds.

Invite children to wear some old socks to see what seeds they collect.

Make and show collections of seeds showing differences (gum nuts, curly acacia seed, dried beans, grass seed). Use Annylupes to examine closely.

Pass around some examples, (such as soft toys and pictures) of some native animals such as bettongs, eastern barred bandicoots, masked owls, bats, platypus, insects. Display live stick insects. These animals share a home with you. You need a house and food to live. What do these animals need? Food? Eg what do the insects eat? They need plants. They also need shelter.

Today we are going to begin to grow some plants to help these animals to survive.

Teacher Background

In this activity students are taking action to support the biodiversity of the school and neighbourhood by growing trees shrubs and grasses. Most plants come from seeds.

Seeds travel. Some fly (she oak, poa, dandelion), hitchhike (buzzy), splash (coconut), drop (eucalypt)

What do seeds need to wake up? Soil (food), water, sun.

Seeds are made up of: coat, food and embryo.

Engagement

Let's get Growing

Need:

Seeds-native seeds such as acacia, Eucalyptus ovata

Soil (seed raising mix without added phosphorous)

Pencils and icy pole sticks (could be dated with plant labels beforehand)

Newspaper

Masks

Tubes and trays

Watering can

Trowel

Bucket

Preparation:

Talk about the seeds- gum seed, poa and wattle seed. The wattle seed need to be soaked in boiling water to loosen its 'coat'.

Cover desks with newspaper

Make available to each group or pair of students a tube and soil. (Students should wear masks when moving soil).

Add soil to the tube.

Place a little hole in the soil with a pencil.

Place one or two seeds in the hole and cover them with soil.

Label your seed tube with date and plant on an icy pole stick.

Water your seeds.

Place seeds in trays **close by**, in a light area, that is easy to access and where water can drain. Keep regularly watered.

On going Care:

Students should water the soil when it looks dry. Set up a student watering roster. Students can test when the growing plants need water by sticking their fingers one inch into the soil on the side of the pot. If it feels dry, and no soil sticks to their finger then watering is necessary. When students water the plant, they should add enough water so that it starts to come out of the hole at the bottom of the tube.

After the plants have started to sprout, go over the different parts that are emerging. Name these parts and describe their functions:

Root: Anchors the plant and takes in water and nutrients from the soil.

Stem: Helps support the plant.

Leaves: Take in light, which the plant will use to make its own food.

Action:

Note to teacher Seedlings may be ready in 6 months (minimum). In the meantime sprouting seeds such as wheat, lentils can demonstrate the process of germination in a shorter time!

(1) Students could **adopt an area of the school grounds** or surrounds to prepare and plant their seedlings. They could also take seedlings home to plant with permission from parents.

(2) Students illustrate a guide/story sequence to **Let's Get Growing**.

1. You will need: newspaper, soil, seeds, trowels, icy pole sticks, pencils, masks and watering can
2. Cover the table with newspaper.
3. Get a tube.
4. Put on a mask
5. Add soil to the tube with a trowel.
6. Place a little hole in the soil with a pencil.
7. Place one or two seeds in the hole and cover them with soil.
8. Label your icy pole stick with the plant name and the date.
9. Water your seeds.

Resources

Books

The Tiny Seed by Eric Carle

Titch by Pat Hutchins

Poems/Song

I'm a little seed, like a little ball,
Im buried in the ground and I'm not very tall

I'm a Little Seed

(to the tune of "I'm a Little Teapot")

I'm a little seed,
Brown and fat,
I haven't got a front,
And I haven't got a back.
Plant me in the earth,

Give me water each day,
I'll grow to be a gum tree,
While you play!

(sung to I'm a Little Teapot)

I plant a little seed in the cold, cold ground.

Out comes the yellow sun, big and round.

Down come the raindrops soft and slow.

Up comes the flower, grow, grow, grow!

I dig a hole and plant a seed,
Cover it with soil, and set it free,
Down comes the rain, and out comes the sun,
Up grows my plant,
Oh! What fun!

Seed Song by Faye White

I'm a little seed, like a little ball,
I'm buried in the ground and I'm very, very small.
What do I need to make me grow?
Water, sunshine, soil and air.

Resting in the good ground, curled up tight,
I had a drink of water cause it rained last night.
Time for me to make a little root
Stretching out like a little white foot.

Time passes by and my root grows long
I'm feeling nice and warm, and I'm feeling very strong.
Now from my side, somethings coming through,
Oh look it's a shoot and it's green and new.

I'm waking up now in my garden bed
Pushing up, with my little green head
Grow and push till out I come
And I lift my face to the shining sun,
My arms reach out to the blue, blue sky
See my green leaves growing up high

I'm healthy, I'm happy, I bend and I dance,
I started as a seed and now I am a beautiful plant.

<http://www.greenhub.org.au/wp-content/uploads/2013/06/Seed-Sowing Activity.pdf>

http://www.makemegenius.com/science-videos/grade_3/seed--germination-for-kids

<http://www.greeningaustralia.org.au/news/inside-seeds-the-power-of-x-rays>

[Dr. Seuss, The Lorax "Let it Grow!" - YouTube](http://www.youtube.com/watch?v=Slpz0D35oRI)
www.youtube.com/watch?v=Slpz0D35oRI

Letter to Parents



School logo

School Address

Tel

Email

Dear Families,

Let's Get Growing

Our classes (Kinders and Grade 5/6) have been germinating native seed, to grow homes for threatened species in the Midlands Biodiversity Hot Spot.

The Midlands is one of 15 Hot Spots in Australia. Hot Spots are areas with lots of local endemic species that are endangered. (That is 12 animals and plants not found anywhere else in the world). The Midlands is home for 32 nationally threatened species such as bettongs and eastern barred bandicoots, spotted tailed quolls, masked owls and wedge-tailed eagles. Widespread loss of vegetation has meant many of these animals have lost their homes. Losing plants and animals, birds and beetles, affects the health of our farms, our waterways, soils and our climate.

We are helping Greening Australia's large scale restoration work on farm land in the Midlands. In 2014, 21,000 trees were planted on farms at Ross and Cressy.

We are going to plant some of our native plants near our school. The Kinder children will be able to watch these trees grow until we are in Grade 10! The students will also bring some plants home to grow at home.

Greening Australia is working with University of Tasmania researchers who are investigating how birds, bats and mammals live and move on farms. They are investigating masked owls, bettongs and eastern barred bandicoots and carnivores such a devils, quolls and feral cats. If you have seen any of these animals, the researchers would love to hear from you. Email nsmit@greeningaustralia.org.au /text 0407 684 029.

For further information:

<http://www.greeningaustralia.org.au/project/tasmanian-midlands-restoration-program>

Yours sincerely,

TREES



What do we know?

Kindergarten, Cressy District High

- People breath out and trees eat it
- Oxygen
- To make us cool down
- Water - tress need it - to grow bigger
- Trees give us food -
 - Apples, Lemons, Oranges, Nuts, Bananas, Pears
- Fruit can fall off trees
- We climb on a ladder for collecting food
- Roots
- Wood for fires
- We sit and climb on trees
- Weeds grow under trees
- Animals and insects live in trees
- Birds live in a tree
- Leaves fall off trees
- Flowers are on trees
- Sticks fall off a tree
- We can sit under a tree and get shade
- We can play in a tree and have a cubby house in a tree