

# Junior Explorer Activity



## Activity Sheet 1.

### Bush Detectives

opportunity » growth » lifestyle



There are plenty of cool natural places (about 50) to explore in Frankston. Some of them are featured in our booklet “Natural Reserves within Frankston City” which you can find on Council’s website. Check out a Bush Reserve near your place and try these activities.

### HEADING OUT

Before you start out, here are some tips for keeping you and your park safe:

#### Know before you go!

Dress for the weather. Take a rain jacket or hat and wear sturdy covered shoes.

#### Keep Our Parks Wild

Respect animal homes by leaving rocks, logs and vegetation as you find them.

#### Leave No Trace

The best souvenirs are your memories and photographs or drawings. Remember nature’s treasures belong in the bush, not in your pockets. Leave only footprints.

### BUSH DETECTIVES ARE:

**Observant:** Most native animals are either nocturnal or very shy. .. or both! But you may find signs they leave behind if you look carefully.

**Patient:** Birds and other animals don’t like being disturbed, so you may have to wait for them to show themselves.

**Quiet:** Most animals continually talk to each other, so you will often hear them before you see them, if you are listening well.

**Sensational:** Bush detectives rely on all their senses to explore their surroundings.

**Prepared:** Its handy to have the right equipment for exploring – look at the activities first to see what you might need.

**Adventurous:** Be willing to try things you haven’t done before.



## PRICKLY OR TICKLY

**Equipment:** Your hands & a friend



**Instructions:**

- Your friend will turn away from you with eyes closed
- Meanwhile you collect from the ground one thing that is “prickly” and one thing that is “tickly”
- Ask your friend to keep eyes closed with both hands open behind the back
- Gently touch your prickly and tickly things onto your friend’s hands, one at a time
- Your friend will guess which one is prickly and which is tickly
- Swap roles with your friend and repeat.

**Clues:**

- Choose only things from the ground, and not from live plants
- Try this using other “touches” such as Dry / Wet; Rough / Smooth; Hard / Soft

## SCRATCH 'N SNIFF




Bush smells get “locked” inside the plants and other objects. With the help of a “scent catcher”, you can enjoy these aromas after releasing them with a scratch.

**Equipment:** Small jam jar with a clean sponge cut into small shapes inside, and half filled with water

**Instructions:**

- Choose a leaf, bark, stone, soil or log to smell
- Scratch it with your fingernail to release the aroma
- Take a moist “scent catcher” from the jar and dab it under your nose
- Smell the object you have just scratched.
- Try 5 different things and share your favourite scent with a friend.

**Clues:**

- Always wash your scent catchers after use in warm soapy water and allow to dry before using again.
-  • Avoid smelling fungi as some can be highly toxic
- Ever wondered why dogs have wet noses, or why the bush smells are stronger after rain?

## BUSH SYMPHONY

**Equipment:** Hands, ears, note paper and pencil.

**Instructions:**

- Warm up your ears by gently rubbing them with your hands
- Hold your hands over your ears for a couple of seconds while you listen to yourself breathing
- Take your hands away and your ears are tuned up
- Tap your pencil three times on the nearest tree
- Use the pencil as a baton to conduct the symphony of sounds around you
- Thank the “Bush Symphony Orchestra”



Now find a quiet spot to sit by yourself (no talking!)

- Tune up your ears again
- Record the “music” around you on your notepaper by drawing or writing the sounds, like a music score.
- Share your music by singing it to a friend



## MUSHROOM MAGIC

Mushrooms play an important role in making soil from dead plants, just like magic. Each mushroom is a “fruiting body” with the real fungus being like white strings (mycelium) underground or inside rotting logs.

**Equipment:** small mirror attached to a stick and a piece of blank paper

**Instructions:** Gills, pores and spores:

- Look under a mushroom with your mirror for gills (slits) or pores (tiny holes) where the spores are released?
- Place a piece of white paper under a mushroom and gently tap the cap to release spores onto the paper
- Remove the cap of a fresh mushroom and place it flat onto paper to make a “gill print”
- Lift a rotting log and look for the white “strings” or mycelium underneath (always replace logs)



**Clues:** Don’t be tempted to eat bush fungi, many are poisonous. Stick to eating fungus from the shop.

## ANT TRAILS



Ants nest in large colonies below ground, and search the surrounds for food. When they find food, they leave a scent trail leading to and from the nest for each other to follow.

**Equipment:** Your eyes, magnifying glass, a biscuit and a piece of paper.

**Instructions:**

- Find an ant nest on the edge of a track
- Watch for ants moving nearby
- Put some biscuit crumbs on the ground about a metre away from the nest
- Time how long it takes the ants to find it and start to create a trail
- Once a trail is formed, place a small piece of paper over the trail and watch as the ants “lose the scent”



**Clues:** Watch out for ants that bite; bullants and jumping jacks. Juice from bracken fern tips or roots is a good treatment for ant bites.

Adult bullants are vegetarians, but kill insects to feed their youngsters in the nest. They grip tight with their pincers and the sting is in the tail.



## SHAKE A TREE

Lots of tiny insects hang out on tree branches, and you can miss them if you don't look closely. Try this.

**Equipment:** Heavy duty clear plastic bag. Magnifying glass & collector cube or bug catcher. Artists paint brush

**Instructions:**

- Carefully place bag over the end of a leafy branch
- Hold the bag closed and shake it, tapping it against your other hand
- Gently remove the bag and look for insects moving about inside
- Pick up insects with your paint brush and place into the bug catcher for a closer look
- Identify the insects using the Bugwise on line ID key.

<https://australianmuseum.net.au/learn/teachers/learning/bugwise/>

**Clues:** Be gentle with the plants and insects, using the brush avoids squashing them. Don't keep insects for too long and return them to their homes.

## WHO'S SCAT IS THAT?



Animals are good at hiding, so bush detectives need to detect the signs they leave behind, like tracks and scats (droppings).

While walking along bush tracks, look out for these scats.



**Clues:** Always wash your hands after messing about with scats

## WHAT'S THAT TRACK

Animals tend to follow bush trails and often leave tracks on clear sandy ground or in muddy patches.

Try smoothing out a sandy patch on the track on return the next morning to see who may have walked this way.

 Echidna (12cm)	 Kangaroo (35cm)	 Swamp Wallaby (19cm)	 Koala (20cm)
 Cat (5cm)	 Dog (10cm)	 Brushtail Possum (12cm)	 Fox (8cm)

## STORIES IN STUMPS

Each year trees put on a seasonal growth spurt, just like you do. Instead of measuring their height standing against the wall, we can count a tree's "growth rings" to tell its age and rate of growth.

**Equipment:** Ruler showing mms. Magnifier, Paper and crayon or coloured pencil.



### Instructions:

- Find a tree stump or the end of a branch that has been sawn off
- Count the number of growth rings from the centre out to the edge. How old is it?
- Place your paper flat over the cut surface and rub your crayon or pencil over it to create an image of the rings
- Write this year on the outer ring and count back to label the year of the inner ring
- Now find the year you were born and label that ring
- Label other family "birth rings"
- Measure the distance in mm. between rings to work out how much the tree grows each year

**Clues:** Not all tree rings are the same distance apart. Trees grow faster in good seasons and slower during droughts. Can you find when the last drought was?

## FURTHER READING:

Cornell, Joseph Bharat (1979) *"Sharing Nature with Children"* - Ananda

Frankston City website (downloadable booklets)  
[https://www.frankston.vic.gov.au/Environment\\_and\\_Waste/Environment/Biodiversity](https://www.frankston.vic.gov.au/Environment_and_Waste/Environment/Biodiversity)

- *Natural Reserves within Frankston City*
- *Indigenous Fauna Guide*
- *Indigenous Plant Guide*
- *Sustainable Gardening in Frankston City*

Grey, P & Grey E (2005) *"Fungi Down Under: the Fungimap guide to Australian Fungi"* – Fungimap

Scott, R. et al. (2002) *"Indigenous Plants of the Sandbelt: A gardening guide for South-eastern Melbourne"* – Earthcare, St.Kilda.

Triggs, Barbara. (1996) *"Tracks, Scats and Other Traces: a field guide to Australian mammals"* - Oxford

## MOSESSES AND MOZZIE MUNCHERS

You may see soft green mosses growing like a carpet along the walking trails.

Sometimes, among them, lurk hungry mozzie munchers, the sundews



Mosses get their food from the soil, while sundews feed on insects, so they are quite happy living together.

These strange plants trap insects on very sticky hairs on their leaves and use enzymes to digest them through the leaves.

Some sundews have flat leaves close to the ground while others have flowers and leaves on stems up to 12 cm high



### Instructions:

Have a good look around for mosses and sundews

- Feel how soft and damp the mosses are
- Use your magnifying glass to check out:
  - The moss carpet and the spore cases on stalks
  - The sundew leaves and the "droplets" of sticky liquid on the ends of the hairs
- Gently touch your fingertip to a sundew leaf, then slowly pull it away to see how sticky it is
- In springtime, watch for insects visiting sundew flowers. You may be lucky enough to see one get trapped

**Clues:** Be very gentle with these tiny plants, and be patient when watching for insect visitors.

Oh! And try not to get eaten, yourself.

Happy  
Bush  
Detecting!!

