

GARDENING

LEARNING OUTCOMES

Having completed this badge members will:

- Be able to identify the basic elements of a plant;
- Grow and care for their own plants;
- Be able to explain how weeds affect plants;
- Recognise some flowers.

BADGE REQUIREMENTS

1. Know the basic parts of a plant.
2. Grow seeds on cotton wool.
3. Plant a bulb or flower seeds in a pot plant or corps garden and care for it for one month.
4. Help to weed a garden and know why weeding is important.
5. Recognise four flowers.
6. Create your own small garden.
7. Visit a garden

EXPLORERS
MOONBEAMS

gardening



TIME FRAME

Three - Four
weeks

AIM

To allow
members to
experience
the joy and
wonder of
growing
plants.





Teaching ideas



1. Know the basic parts of a plant.

The main parts of a plant should include the roots, stem, leaves, fruit or flower and seeds. Members could make a poster with the main parts labelled.



2. Grow seeds on cotton wool

Provide each child with some cotton wool in a shallow dish or lid. Add seeds (e.g. alfalfa, wheat) and regularly water. Or grow a 'Grass Head'. The seeds should take about a 1 week before they show any signs of shooting.

Growing Grass Heads



Growing grass heads is an easy, fun activity for kids.

1. Cutting the bottom section off a nylon stocking (or use knee-high stockings). A toe piece approximately 20cm long should be just about right. This will allow enough space to stuff the toe and leave room to tie it up.
2. Shake a generous sprinkling of lawn seed into the toe of the stocking, then fill a moisture-holding medium that the grass will be able to get its roots into. Sphagnum moss is best because it's light, clean and holds moisture well. Dampen and squeeze out the moss before stuffing it into the toe. Sphagnum moss is available from garden suppliers but, if you find it hard to get, you could use clean sawdust.
3. After the toe is firmly filled and is about tennis ball size, fasten it at the bottom with a rubber band to enclose the contents. The next step is the creative stage – giving the head a face. Stick on or draw eyes and a mouth, preferably using waterproof pens or glue (kids will need some adult help with this).
4. Select a cup that's about the right size to hold the head without allowing it to fall in. Fill it with water and place the head upside down on the cup, so that the top is just sitting in the water.
5. When the top's well moistened, remove the head and place it on a bright windowsill, out of direct sunlight. Check each day to make sure it remains moist. If the head starts to dry out, wet it again in the same way or by spraying with water from a trigger pack.

After a while (usually about a week) the grass shoots will start to sprout out from the top of the head. Keep them moist as they grow and give them an occasional spray with fertiliser. Half strength Thrive Soluble Plant Food or Thrive Concentrate Liquid Plant Food would be ideal. Once the grassy head's hair is well established it can be given a haircut by trimming with scissors.

Teaching ideas



3. Plant a bulb or flower seeds in a pot plant or corps garden and care for it for one month.



4. Help to weed a garden and know why gardening is important.

Weed a garden bed at the corps, home of someone in the corps, SAGALA family, or as a service/helper project. Remember to ensure that all members wear gardening gloves. Explain how weeds draw nutrients from the soil, thus depriving plants. Consider helping members to identify some common weeds and any common characteristics of weeds that distinguish them from plants.



5. Recognise four flowers.

This could be done from either actual flowers or a plant book.



6. Create your own small garden.

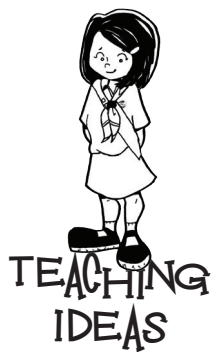
Each member should create their own small garden in a planter box. This could be an ice-cream container (preferably a rectangle container), commercial planter box or other container. The garden should include at least three different plants and could have a theme, e.g. flowers, herbs. Alternatively members could have several small pots. Explain the importance of good soil, water, fertilizer and how to care for the garden. Plants may be grown from seeds, young plants or cuttings.

Gardening in pots or containers is a good way to kick-start a child's interest in gardening. The basics for success are:

- Don't have too small a container – it will dry out too quickly and need to be watered too often.
- Use a good quality potting mix. Look for the Australian Standards mark on the bag.
- Don't allow the base of the pot to sit in water.
- Potting mixes need more fertiliser than soil. Feed regularly during the growing season with a soluble plant food, such as Thrive or Aquasol, or controlled release pellets.
- Wash hands after handling potting mix.

Growing seeds in a seed Raising Tray

You will need: A cardboard egg carton, a baking dish, a pair of scissors, seed raising mixture, some seeds to sow (peas, beans or broad beans are good to try).



Teaching ideas

What to do:

1. Cut the egg carton along the “hinge” to make one flat tray and one tray of “plugs”.
2. Use the scissors to push out the bottom of each egg space so that the plugs have no bottom.
3. Sit the tray of plugs in the flat tray and fill them with moist seed raising mix.
4. Plant one seed in each plug.
5. Sit the trays in a well-lit spot in the baking tray. Keep the soil moist by adding water to the bottom tray if necessary.
6. When the seedlings have grown leaves you can transplant them into pots or straight into the garden. Water the seedlings first and let them drain. Separate the plugs by carefully cutting the egg carton into pieces. Carefully cut down the sides of each plug. It doesn't really matter if the cardboard stays because it will soon break down in the soil.



You will need: a shallow plastic or metal tray with holes in the bottom (The trays that nurseries use to hold their punnets of seedlings are perfect), potting mix, small stones, pebbles, a jar lid, aluminium foil, and a selection of small plants

What you do:

1. Almost fill the tray with potting mix (or make your own mixture of compost, sand and peat moss.)
2. A jar lid covered in aluminium foil makes a good pond. Make a hole in the potting mix and press the lid down so the sides cannot be seen. Put some little flat stones around the edge. (Let them poke over the sides into the “pond” a bit.)



3. Your garden will look best if it is not all flat. Mound the potting mix up in a couple of places, make little raised beds surrounded by stones, group some bigger stones to look like boulders, make a winding little path with flat pebbles, sand or fine mulch. You can use pieces of gutter-guard to make screens and trellises. Satay sticks will help to keep it upright.
4. Plants with tiny leaves will look best. Baby's Tears, Pratia, Kennilworth Ivy, thyme, moss and tiny tree or shrub seedlings will all look great. Succulents are really terrific.
5. The garden will dry out quickly, so water it every day. A sprayer bottle filled with water will help you keep the garden moist. Keep it in a brightly-lit place where the water can drain through easily.

Easy-to-grow seeds

Growing plants from seed gives a child a chance to understand the very basics of nature. Here are a few tips for successful seed raising:

1. Read the packet. If it says sow in seed trays or pots, then do so.
2. Sow at the right time of year. Germination is very temperature dependent.
3. Sow into seed-raising mix.
4. Keep seed trays in bright light, but out of direct sunlight.
5. Keep seeds moist. Water gently with a watering-can or a very soft water-breaker.

Some seeds are easy for beginners as long as you follow basic instructions on the packet.

Flowers that children will like to grow include nasturtiums, sweet peas, sunflowers, Mexican sunflowers (Tithonia), marigolds, cosmos, rudbeckia, pansies and violas. Always sow in the right season. Avoid plants with tiny seeds, such as petunias and lobelias. These can be difficult for the inexperienced seed grower.

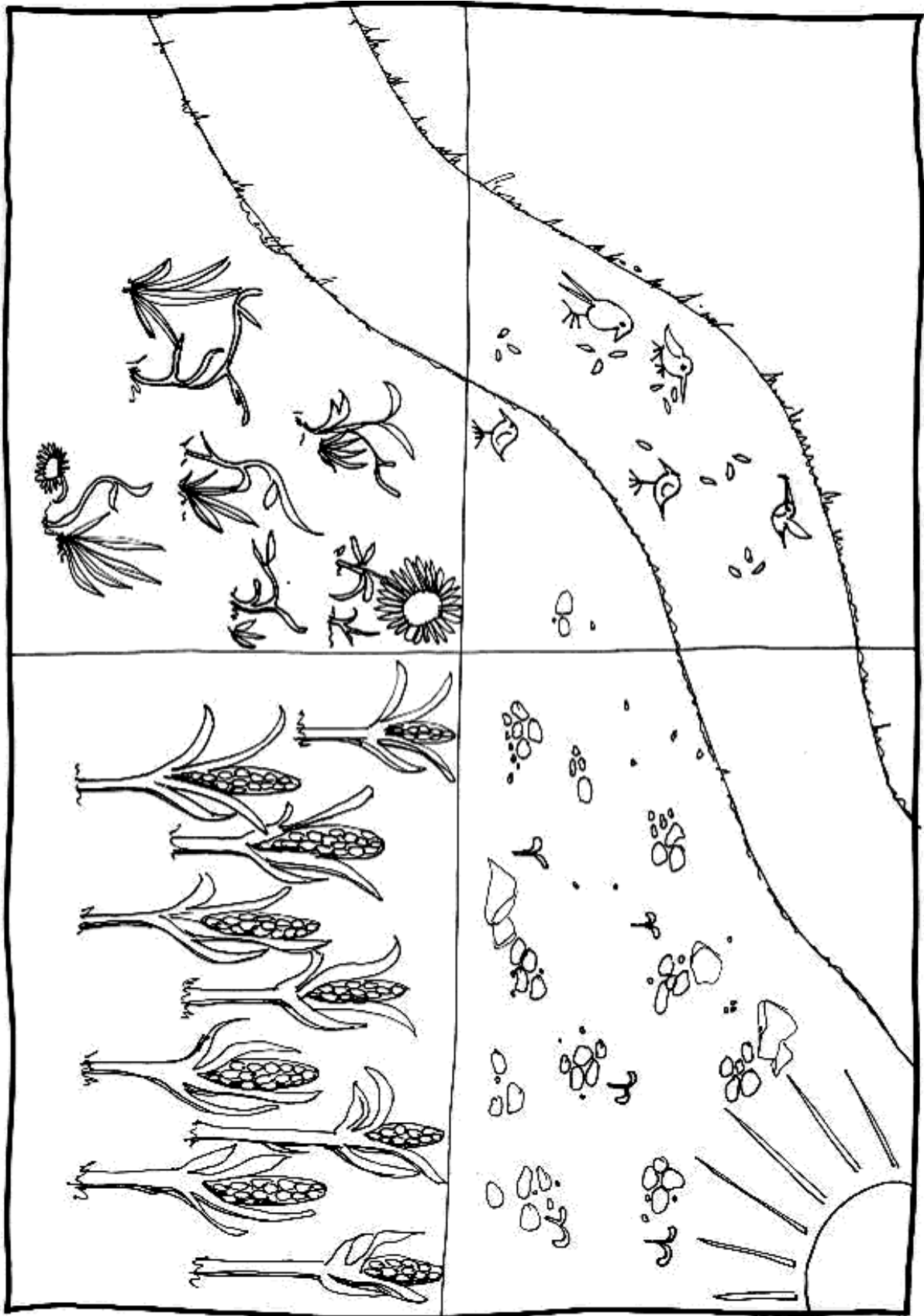
Mixed packets of flower seeds (some of them especially labelled for children) can be scattered onto flower beds. Keep moist and something is bound to come up.



7. Visit a garden.

The garden could be a local community garden, a private garden, a flower, herb or other garden, a rainforest.

Leader's Resource 1



Leader's Resource 1

Grow a Hyacinth in water

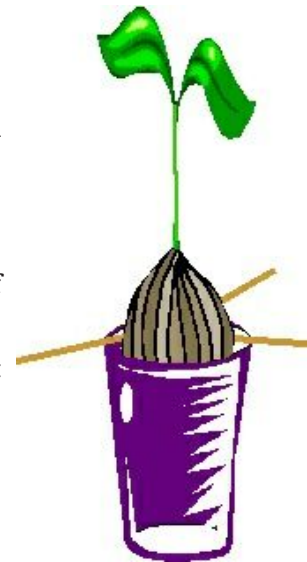
1. Place a hyacinth or crocus bulb in a glass vase or skinny necked jar.
2. Fill the vase with water only to the base of the bulb.
3. Store the vase in a cool and dark location, possibly a well-vented closet.
4. Check the water level regularly to make sure the base of the bulb is still in the water.
5. Move the bulbs to a sunny location when the buds reach appear.



Grow an Avocado in water!

1. Remove the pit from the centre of an avocado. You can eat the fruit of the avocado!

Wash the avocado pit under cool running water. Rinse it well and then blot it dry with a paper towel.
2. Carefully push three toothpicks into the thickest width of avocado. The toothpicks will help suspend the avocado pit in water and keep the top part of the pit in fresh air and the fat base of the pit under the surface of the water. Be careful pushing in the toothpicks.
3. Suspend the pit over a glass filled with water ... the toothpicks will rest on the rim of the glass and hold the pit in place so it doesn't sink to the bottom.
4. The water should cover the fat base of the pit by about two centimetres. If the water is below that level you'll need to add some more.
5. Place the glass in a bright windowsill.



In about three to six weeks the top of the avocado pit will begin to split and a stem sprout will emerge from the top and roots will begin to grow at the base.

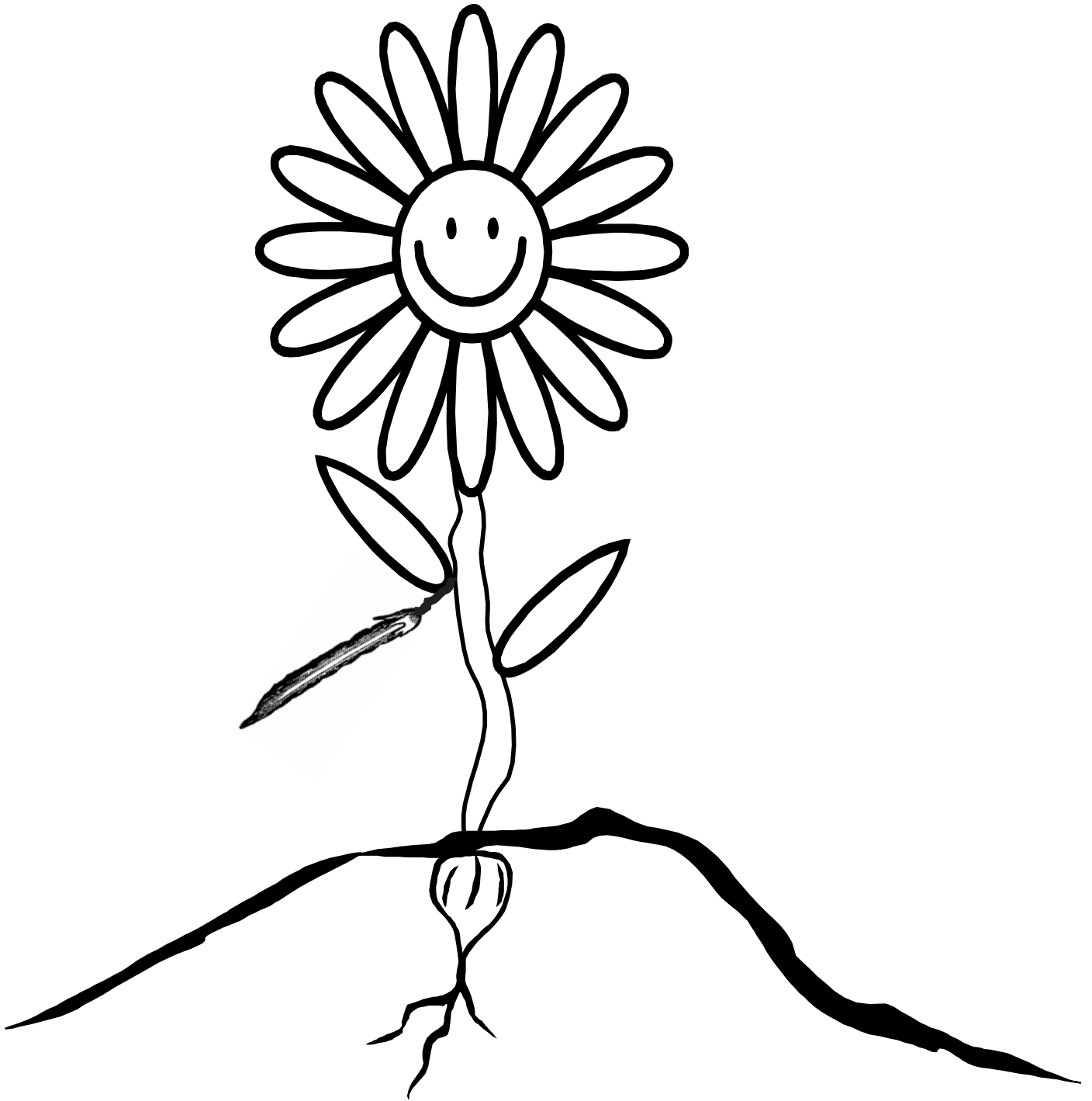
When the stem grows to about five or six inches pinch out the top set of leaves. In another two or three weeks new leaves will sprout and their will be more roots.

The seed can now be transferred into a pot. Place enriched potting soil in a large flowerpot (maybe 20cm to 25cm across). Fill the soil to about 2cm from the top of the pot. Make a small depression in the centre of the soil and place the pit, root-side down into the depression. The upper half of the pit should be above the soil line. Add some more soil around the pit to fill in any air holes by the roots and then firm it into the soil by gently pushing the soil around the base of the pit. The tree's stem and leaves should be straight and pointing up (like a flagpole).

Water the soil slowly and gently so that when it's poured in it doesn't gouge out holes in the soil. Keep your tree watered but don't let the soil be so moist that it ever looks like mud.

Handout 1

Cut up the words and glue them near the correct part of the plant.



flower

leaves

roots

stem

seed pod

Handout 2

Finish the words. Draw lines to join the words to the right picture. Colour the pictures.

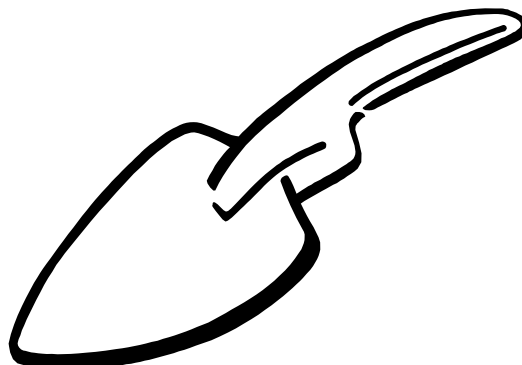
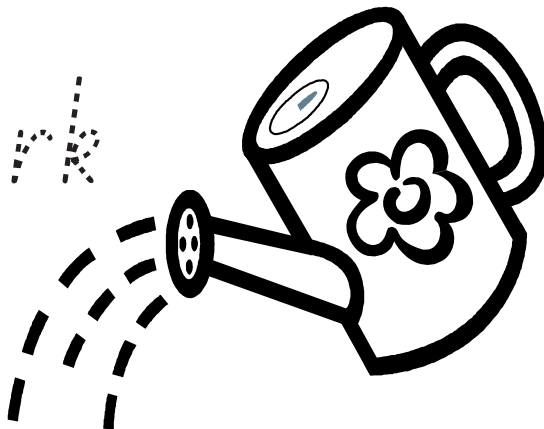
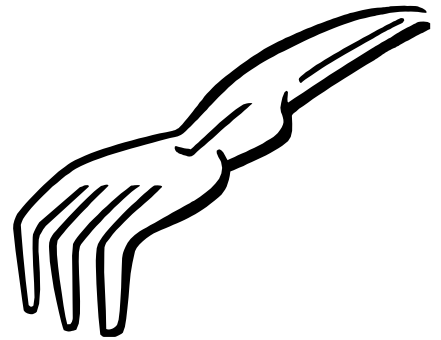
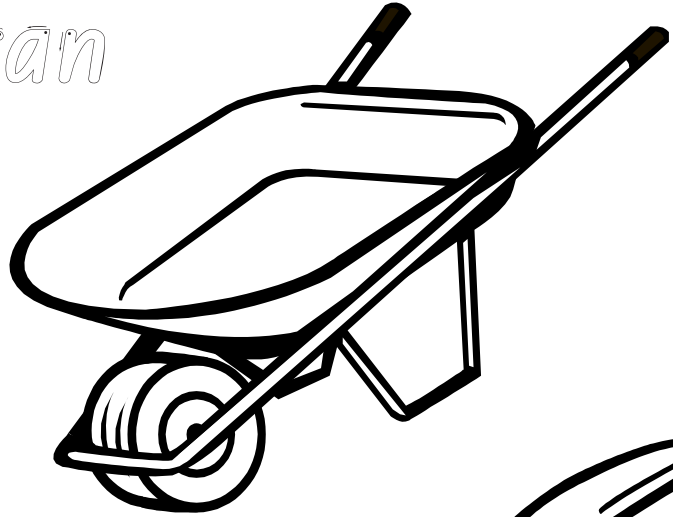
watering can

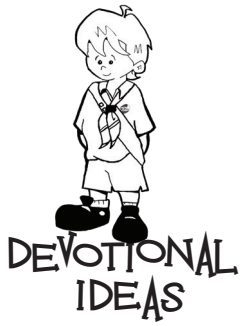
spade

wheelbarrow

fork

fertilizer





Devotional ideas



1. **Title:** The Sewer
Bible: Matthew 13:1 - 23
Thought: Parables teach us how to grow
Supplies: Bible, **Leader's Resource 1**

Ask members what their favourite story is. Ask if they have ever read Goldilocks and the three bears or something similar. Ask if this story taught them something or if the story had a moral. These stories are easy to remember and they are like parables that Jesus told. He used realistic stories about real life things to teach the people lessons on how to live. We still read and learn from Jesus parables today. They show us how to act towards others, how to please God, and they teach us things about Heaven and how we can live with him someday.

After Jesus told a parable he would explain what it meant.

An example of a longer parable is the one about the farmer, it goes something like this:

A farmer went out to plant his garden. As he was throwing the seed on the ground some fell on the hard path nearby and the birds came and ate them. The next seeds fell near some rocks the farmer had in a pile nearby. There was not much dirt around the rocks so the seeds started to sprout and grow the next day. When seeds don't have much dirt, they don't grow good roots which help them stay strong and get water which helps them grow properly.

So in the afternoon when the sun was very hot the little plants that started to grow among the rocks withered away and died because they had no root in the ground.

As the farmer continued to throw seeds onto the ground some of the seeds fell among the weeds and thorns that he hadn't pulled out. The thorns grew faster and taller than the seeds, so the seeds couldn't get enough sunlight and were choked out by the thorns.

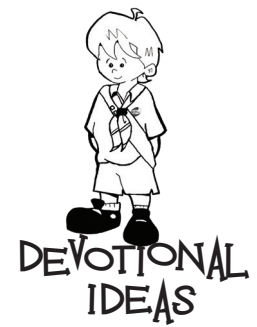
Finally, some seed fell on the good soil that the farmer had worked and dug holes for the seed to go into. Those seeds made plants and those plants produced lots and lots of vegetables.

After Jesus told the parable the disciples asked what it meant. So the meaning of our Farmer story goes like this:

Just like when you're listening to your Sunday School teacher or your parents. They are trying to tell you more about God and about how to get to Heaven someday. When they talk to you about these things they are planting a pretend seed in your mind. The seed is a story about Jesus and as you learn more the seed grows and gets bigger and you eventually will know lots about God and be able to tell others about Him.

If you hear them talking but you don't really listen and pay attention and it will be like the seeds that fell on the path that were eaten by the birds. You will forget and the seed will be gone from your mind and it won't grow.

Devotional ideas



Sometimes you might learn something about God and you will be excited about it but you don't learn more. It helps to read Bible stories and pray and go to church if you can. So this is like the seed that fell on the rocks. It grew only for a short time and then it died. The next seed is the one that was choked out by the thorns. This can happen when you hear a lesson about God and then you start to follow what the lesson has taught you but then you think about other things, listen to other people saying different things. You worry about all kinds of things, that you are not cool you don't have all the coolest stuff. By worrying you will choke out the pretend seed in your mind. Pray to God instead of worrying! The last seed is the best it fell on the good ground. If you learn from what you hear in Sunday School and church, the seed will grow. You will be able to tell others about how great God is and God will be a good friend. Instead of growing a garden, you will be helping others know God and making Heaven grow with more people to live there.

What can we learn from this story? Ask members to share what they think they can learn from the story. You can use the following as summaries:

Farming

This story teaches us that plants need good soil to grow root into that contains water and no weeds, as well as sunshine. It shows us that good harvests rely on good growing conditions.

Spiritual

This story teaches us to listen to God's message, and not to give up when things are tough, we will lose our faith and feel sad and lonely.

If we listen to the good news and do our best to follow God's word, then we will be rewarded.

Leaders may like to use **Leader's Resource 1** as a visual aid or have members colour it.

We can also say thank you to God for giving us plentiful harvests – for the food we eat that farmers grow for us.

The Story could be presented as a Drama.

Select members to be the farmer, seeds, birds, rocks, weeds and the crop/fruit. As you read each action have the members do the actions. Show members how farmers sow the seeds by casting their arms out. Set out a field with rocks and line a path.

A farmer sowed some seeds in his field. (Farmer cast his arm. Seeds land by rocks.)

Some seeds fell onto the path and the birds quickly ate them. (Birds come to take seeds away.)

Some seeds fell onto rocky ground, where there wasn't much soil. They soon died. (Rocks push seeds away.)

Some seeds fell into an area that was full of weeds. The weeds got in the way and the plants died. (Weeds push seeds away.)

But some seeds fell onto good ground, so the plants grew well. (Seeds grow from crouching to standing arms outstretch.)

When they had grown, the farmer harvested lots of plants. (Plants ready for harvest have fruit.)



Devotional ideas



2. Title: How Does Your Garden Grow?
Bible: Romans 8:25
Thought: Waiting patiently upon God
Supplies: Bible, Packet of garden seeds

This devotion could be done after **Badge Requirement 2**. After members have planted their seeds ask where are the plants. Ask members do they think you should give up now that the seeds haven't grown. Should we give up on growing seeds? Ask why or why not. The answer is that it takes time for the seeds to sprout and grow into plants. It does tell us that on the seed packet.

It's just like other things that we may want we don't wish to wait the time it might take to have these things grow, or delivered, or made or cooked. We are often the same way with God. We pray and ask God to do something in our life and when we get up the next morning, we expect it to be done! If God hasn't come through in two or three days, we give up on Him.

Read the Bible passage. The Bible says that if we hope for what we do not have, we must wait for it patiently. It tells us not to worry about anything, but to make our requests to God in prayer with an attitude of thanksgiving in our heart. He will do what is best for us at just the right time! Let's pray and ask God to help us to be patient as he answers our prayers.

Dear God, give us patience to wait for you to do the things that we ask for in our lives. Help us to remember that you will do what is best for us when the time is right.

An additional activity could be put several beans in a zip-lock bag with a moist paper towel and seal the bag. Have members take them home and tape the bags to a window where they will get some sunlight. They should watch the beans each day, making sure that the paper towel remains moist. After a few days, some of the beans will begin to sprout.

Devotional ideas



- 3. Title:** Mustard Seeds and Yeast
Bible: Matthew 13:31 - 33
Thought: Size doesn't matter in the kingdom of heaven
Supplies: Bible, Packet of mustard seeds and a packet of yeast

Firstly show members the mustard seeds commenting how tiny they are. They are one of the smallest seeds. Show members some yeast. Yeast comes in very small packets and is made up of small grains. Both of these things are very small, yet, in the Bible the mustard seed and yeast are used by Jesus to describe what the kingdom of heaven is like.

Read Matthew 13:31-32.

What can we learn from the mustard seed? We can learn that we are never too small to be important in God's eyes. We may be small, but we can help to grow the kingdom of God.

Look at this small packet of yeast.

What happens when you take this small amount of yeast and mix it with water and flour and a little salt and sugar? It grows all through that mixture and gives us big loaves of bread. Large, soft, fluffy, delicious loaves of bread. The flour and water and sugar and salt just can't do it alone. The yeast has an affect on everything – just from a tiny piece of it.

Read Matthew 13:33.

That is what Jesus wants us to do. He wants us, as part of his kingdom, to change the world around us and make it better.

We may be small, but like the mustard seed and the yeast, we are important in the kingdom of heaven.

Father, help us to remember that size is not important in your kingdom. You can use even the smallest one of us to grow the kingdom. Amen.



DEVOTIONAL
IDEAS