



Gardening

Life Skills – Elective 10

Purpose

The purpose of 'Gardening' is to learn how to prepare, plant, and maintain a garden plant.

1. What are some types of gardens?
2. What are some reasons for having a garden?
3. What types of things can be done to prepare a garden before planting?
4. How should different types of plants be planted and maintained?
5. How often should a garden be maintained or worked?



Notes to the Trail Guide

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1. The goal is not for the boys to be experts at these topics, but to gain an increased knowledge and awareness of the Objective.
2. Make it relative to your patrol.
3. Remember, these lessons should build from Fox to Hawk and from Hawk to Mountain Lion.
4. See the Leaders Guide for more information on Objectives.

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Skill Progression

	<ol style="list-style-type: none">1. Picture matching2. Identification Game3. Make a small rock garden
	<ol style="list-style-type: none">1. Proper watering techniques2. Learn how to weed a garden3. Plant some seeds4. Pick some produce without harming the plant
	<ol style="list-style-type: none">1. Grow your own potted plant from a seed2. Plan a small garden3. Help maintain a small garden for your church for a period of time

Helps

- I. What are some types of gardens?
 - a. **Goal:** To understand that there are many varieties of gardens that are used to provide different types of resources.
 - b. **Lesson:** Learn about a specific type of garden.
 - c. **Examples:**
 - i. Flower: Pretty and aromatic.
 - ii. Vegetable: Provides vegetables.
 - iii. Herb: Provides herbs.
 - iv. Woodland: Natural and peaceful.
 - v. Water: Water plants and fish.
 - vi. Rock: Natural and calming.
2. What are some reasons for having a garden?
 - a. **Goal:** To understand that gardens have a purpose.
 - b. **Lesson:** Learn how a garden serves a person, the community, or nature.
 - c. **Examples**
 - i. A garden can provide food.
 - ii. A garden provide protection.
 - iii. A garden can be relaxing.
 - iv. A garden can be fun and educational.
3. What types of things can be done to prepare a garden before planting?
 - a. **Goal:** To understand that gardens take some planning in which to suite its purpose.
 - b. **Lesson:** Learn some simple ways to prepare a garden.
 - c. **Examples:**
 - i. What you want your garden to do?
 - ii. How big do you want your garden?
 - iii. What are some key plants for your garden?
 - iv. What kind of soil will you need?
 - v. How much water and sunlight will it need?
 - vi. What resources will you need to prepare your garden?
 1. Tools
 2. Supplies
 3. Seeds or Seedlings
 4. Soil
4. How should different types of plants be planted and maintained?
 - a. **Goal:** To understand that different plants have different needs and directions.
 - b. **Lesson:** Learn how to plant and care for an easily maintained plant.
 - c. **Examples:**
 - i. Good first plants

1. Sunflower: See further down for growing instructions
 2. Lettuce
 3. Radish
 4. Snow Peas
 5. Cherry Tomatoes
 6. Carrots: See further down for growing instructions
 7. Basil
 8. Mint: See further down for growing instructions
5. How often should a garden be maintained or worked?
- a. **Goal:** To understand that gardens require consistent attention and work.
 - b. **Lesson:** Learn how to plan a garden schedule and what to do.
 - c. **Examples:**
 - i. Read the information on the plant(s) you want to grow.
 - ii. Make a calendar with dates for maintaining the plant or garden.
 - iii. Find gardening books in your library.
 - iv. Utilize safe and reliable websites.

Scripture Ideas

Jeremiah 29:5

- Fox – By God’s design, gardens can provide food for us.
- Hawk – God desires us to use His creation to fulfill our needs.
- Mt Lion – God tells us to plant gardens which requires work first before we can reap the rewards of the harvest.

Psalm 104:14

- Fox – God gave us plants to provide food.
- Hawk – God’s great creation praises Him and serves our needs.
- Mt Lion – God not only created these things to serve mankind but His divine plan allows plants to continuously provide for mankind for generations.

Activity Ideas

- See the relevant patrol and branch section of the activities
- Or, create your own activity relevant to your troop and region
- Bring a few seed packages into the classroom and let the Trailmen see the seeds and read the instructions.
- Keep a plant for the classroom so the Trailmen can watch it grow and help take care of it.

Game Ideas

- Check the games section online for game ideas
- Or, create a game that works for your patrol

Sunflowers

Harvested for seed.

An annual plant, sunflowers have big, daisy-like flower faces of bright yellow petals (and occasionally red) and brown centers that ripen into heavy heads filled with seeds.

Tall and coarse, the plants have creeping or tuberous roots and large, bristly leaves. Some sunflowers grow to over 16 feet in height, though there are also varieties today that have been developed for small spaces and containers.

Most sunflowers are remarkably tough and easy to grow as long as the soil is not waterlogged. Most are heat- and drought-tolerant. They make excellent cut flowers and many are attractive to bees and birds.

Planting

Sunflowers grow best in locations with direct sun (6 to 8 hours per day); they prefer long, hot summers to flower well.

Sunflowers have long tap roots which need to stretch out so the plants prefer well-dug, loose, well-draining soil; in preparing a bed, dig down 2 feet in depth and about 3 feet across to ensure the soil isn't too compact.

Find a well-drained location, and prepare your soil by digging an area of about 2-3 feet in circumference to a depth of about 2 feet.

Though they're not too fussy, sunflowers thrive in slightly acidic to somewhat alkaline (pH 6.0 to 7.5).

Sunflowers are heavy feeders so the soil needs to be nutrient-rich with organic matter or composted (aged) manure. Or, work in a slow release granular fertilizer 8 inches deep into your soil.

If possible, put seeds in a spot that is sheltered from strong winds, perhaps along a fence or near a building.

Planting Sunflower Seeds

It's best to sow sunflower seeds directly into the soil after the danger of spring frost is past. Ideally, the soil temperature has reached 55 to 60 degrees F.

Give plants plenty of room, especially for low-growing varieties that will branch out. Make rows about 30 inches apart. (For very small varieties, plant closer together.)

Plant the large seeds no more than 1 inch deep about 6 inches apart after it has thoroughly warmed, from mid-April to late May. You can plant multiple seeds and thin them to the strongest contenders when the plants are six inches tall.

A light application of fertilizer mixed in at planting time will encourage strong root growth to protect them from blowing over in the wind.

Experiment with plantings staggered over 5 to 6 weeks to keep enjoying continuous blooms.

If you see birds scratching around for the seeds, spread netting over the planted area until seeds germinate.

Care

While the plant is small, water around the root zone, about 3 to 4 in. from the plant. To protect the plant, it may help to put snail or slug bait around the stem.

Once the plant is established, water deeply though infrequently to encourage deep rooting. Unless the weather is exceptionally wet or dry, water once a week with several gallons of water.

Feed plants only sparingly; overfertilization can cause stems to break in the fall. You can add diluted fertilizer into the water, though avoid getting the fertilizer near the plant's base; it may help to build a moat in a circle around the plant about 18 inches out.

Tall species and cultivars require support. Bamboo stakes are a good choice for any plant that has a strong, single stem and needs support for a short period of time.

Pests/Diseases

Birds and squirrels will show interest in the seeds. If you plan to use the seeds, deter critters with barrier devices. As seed heads mature and flowers droop, you can cover each one with white polyspun garden fleece.

If you have deer, keep them at bay with a tall wire barrier.

Sunflowers are relatively insect-free. A small gray moth sometimes lays its eggs in the blossoms. Pick the worms from the plants.

Downy mildew, rust, and powdery mildew can also affect the plants. If fungal diseases are spotted early, spray with a general garden fungicide.

Harvest/Storage

For indoor bouquets, cut the main stem just before its flower bud has a chance to open to encourage side blooms.

Cut stems early in the morning. Harvesting flowers during middle of the day may lead to flower wilting.

Handle sunflowers gently. The flowers should last at least a week in water at room temperature.

Arrange sunflowers in tall containers that provide good support for their heavy heads, and change the water every day to keep them fresh.

Harvesting Sunflower Seeds

To harvest seeds, keep an eye out for ripeness. The back of the flower head will turn from green to yellow and the bracts will begin to dry and turn brown; this happens about 30 to 45 days after bloom and seed moisture is about 35%. Generally, when the head turns brown on the back, seeds are usually ready for harvest.

Cut the head off the plant (about 4 inches below the flower head) and remove the seeds with your fingers or a fork.

To protect the seeds from birds, you can cover the flowers with a light fabric such as cheesecloth and a rubber band. Or, you can cut the flower head early and hang the heads upside down until they seeds are dry;

hang indoors or in a place that's safe from birds and mice.

Recommended Varieties

Everyone is familiar with the huge sunflowers that grow on towering eight-foot-tall stalks. But, did you know that some varieties top off at a modest 15 inches?

The towering 'Mammoth' variety is the traditional giant sunflower. It is excellent for snacks and bird feeds, too.

'Autumn Beauty': One of the most spectacular cultivars, has many 6-inch flowers in shades of yellow, bronze, and mahogany on branching stems up to 7 feet tall.

'Sunbeam': A standout bouquet flower, the van Gogh sunflower grows on a 5-foot plant with 5-inch flowers.

The big, no-mess, pollenless flowers have rich, golden-yellow rays.

'Teddy Bear': Just 2 to 3 feet tall, this small flower is perfect for small gardens and containers. The fluffy, deep-gold, 5-inch blossoms last for days in a vase.

Cooking Notes

Some varieties provide small black seeds that are used in cooking oil, margarine, cosmetics, and animal feed; they are the best sunflower seeds for attracting the greatest variety of songbirds.

The bigger, striped seeds are grown for snacking and as an ingredient in bread and health foods. They, too, are used for feeding birds, especially larger species such as jays and mourning doves.

For eating, the seeds must be dried on the plants. Rub the seeds off and soak them overnight in a gallon of water to which a cup of salt has been added, then dry them again in an oven at 250 degrees F for 4 to 5 hours. Store them in an airtight container.

One way to remove them is to rub the head of the sunflower across an old washboard or something similar.

Just grip the head and rub it across the board as if you were washing clothes.

Carrots

Carrots are a popular root vegetable that's easy to grow as long as it's planted in loose, sandy soil. Most varieties of carrots are resistant to pests and diseases, and they are also a good late season crop that can tolerate frost.

Carrots' root is rich in sugar, and a great source of vitamins and carotene. Not all carrots are orange; varieties vary in color from purple to white!

If there is a challenge to growing carrots, it's just having soil that's not too heavy—or, you'll end up with stunted round balls! Most carrot varieties need deep, loose soil.

Carrots are grown from seed and take about four months to mature.

Planting

Plan to plant seeds outdoors 3 to 5 weeks before the last spring frost date.

Carrots are ideally grown in full sunlight, but can tolerate a moderate amount of shade.

Plant carrot seeds 3 to 4 inches apart in rows. Rows should be at least a foot apart.

Make sure your soil is free of stones; carrots need deeply tilled soil that they can push through.

Care

Gently mulch to retain moisture, speed germination, and block the sun from the roots.

Soil should be well drained and loose to prevent forking and stunting of the root growth.

Water at least one inch per week.

Weed diligently.

Fertilize 5-6 weeks after sowing.

Carrots taste much better after a couple of frosts. Following the first hard frost in the fall, cover carrot rows with an 18-inch layer of shredded leaves to preserve them for harvesting later.

Pests/Diseases

Wireworms

Flea Beetles

Aster Yellow Disease will cause shortened and discolored carrot tops and hairy roots. This disease is spread by pests as they feed from plant to plant. Keep weeds down and invest in a control plan for pests such as leafhoppers. This disease has the ability to overwinter.

Harvest/Storage

Carrots are mature at around 2 ½ months and ½ inch in diameter. You may harvest whenever desired maturity is reached.

You may leave mature carrots in the soil for storage if the ground will not freeze.

To store freshly harvested carrots, twist off the tops, scrub off the dirt under cold running water, let dry and seal in airtight plastic bags, and refrigerate. If you simply put fresh carrots in the refrigerator, they'll go limp in a few hours.

Carrots can be stored in tubs of moist sand for winter use.

Recommended Varieties

Nantes varieties are 6 to 7 inches long, cylindrical (not tapered), and entirely edible. They are medium-sized, sweet and mild, and have a crisp texture.

Danvers carrots are a classic heirloom carrot 6–8" long that tapers at the end, with a rich, dark orange color.

This variety can handle heavy soil better than most varieties.

Wit & Wisdom

Carrots are biennial plants. If you leave them in the ground, the tops will flower and produce seeds the second year.

Can dogs eat carrots? Yes! Carrots aren't just great for humans—they make a great treat for your pets! Try this dog-friendly peanut butter carrot cake for your dog's next birthday.

Mint

Mint is a perennial with very fragrant, toothed leaves and tiny purple, pink, or white flowers. It has a fruity, aromatic taste.

There are many varieties of mint—all fragrant, whether shiny or fuzzy, smooth or crinkled, bright green or variegated. However, you can always tell a member of the mint family by its square stem. Rolling it between your fingers, you'll notice a pungent scent and think of candy, sweet teas, or maybe even mint juleps.

As well as kitchen companions, mints are used as garden accents, ground covers, air fresheners, and herbal medicines. They're as beautiful as they are functional, and they're foolproof to grow, thriving in sun and shade all over North America. In fact, mint can be vigorous spreaders, so be careful where you plant it.

Planting

Mints are vigorous perennials that thrive in light soil with good drainage.

Ideally, they prefer a moist but well-drained site, something like their native habitat along stream banks.

Most will tolerate some shade, and the variegated types may require some protection from direct sun.

For growing outdoors, plant one or two purchased plants about 2 feet apart in moist soil. One or two plants will easily cover the ground. Mint should grow to be 1 or 2 feet tall.

In the garden, plant mint near cabbage and tomatoes.

Care

Minimal care is needed for mint. For outdoor plants, use a light mulch. This will help keep the soil moist and keep the leaves clean.

For indoor plants, be sure to water them regularly to keep the soil evenly moist.

At first, mints develop into well-behaved-looking, bushy, upright clumps, but they soon set out to conquer new territory with horizontal runners and underground rhizomes. Unless you block the advance, a pert peppermint plant can turn into a sprawling 4-foot giant in just 1 year. Mints benefit from picking

and pruning. They are shallow-rooted and easy to pull out, so there's no reason to worry, as long as you provide physical barriers such as walls, walkways, or containers.

Harvest/Storage

Frequent harvesting is the key to keeping mint plants at their best. Young leaves have more flavor than old ones, and mint can be harvested as soon as it comes up in spring. Although fresh is best and sprigs keep for a few days in water, mint leaves can be frozen or air-dried in bunches.

Right before flowering, cut the stems 1 inch from the ground. You can harvest one mint plant two or three times in one growing season.

You can also just pick the leaves as you need them.

You can grow the plants indoors for fresh leaves throughout the winter. If you want to dry them, it's best to cut the leaves right before flowering. Store the dried leaves in an airtight container.

Recommended Varieties

Apple/Pineapple Mint: *Mentha suaveolens*

Corsican Mint: *Mentha requienii*

Pennyroyal: *Mentha pulegium*

Peppermint: *Mentha x piperita*

Citrus Mint: *Mentha x piperita* var. *citrata*

Spearmint: *Mentha spicata*

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