

My Gardening journal

Grade 2-3



Gardening:

1. Engages All Five Senses

What better way to engage all five senses than gardening! Gardening engages sensorial senses in a way that no other activity does.

Digging up soil, feeling the water, smelling the plants, tasting fresh produce and listening to the crunch of freshly harvested salad vegetables – all together aid sensory exploration of children.

2. Boosts Motor Skills

It is no secret that young children are falling behind in motor skills. Thanks to mobile devices and lack of non-scheduled everyday [outdoor activities](#), [gross motor skills](#) have taken a serious hit.

3. Encourages Healthy Eating

Transform your picky eater into a healthy eater by growing vegetables and fruits together. Children are much more likely to eat what they have grown (or even plucked!) themselves.

4. Build Family Bonds

Gardening provides an excellent opportunity for the entire family to work together. It is a calming and deeply satisfying activity and an excellent excuse to break away from screens.

5. Inculcates Responsibility & Care Taking

Gardening gives a great hands-on lesson in responsibility and taking care. Plants do not grow overnight.

6. Creates Environment Awareness

Children are more likely to care for their natural surroundings when they grow up taking care of their very own gardens. It helps them understand the seriousness of environment preservation and its implications on the health of our planet.

How to Start a Garden

The first step in starting a garden is identifying the location. You don't necessarily need big, open space to start a garden for your kids. With a little thought, even small spaces can be turned into blooming gardens.

Choose a place that receives ample Vitamin D **sunlight**. A bright sunny patch, roughly 3X3, is a great place to start an outdoor garden.

If you don't have a backyard, look out for your balcony and rooftops. These areas are generally airy and sunlit. A few pots mindfully placed can easily transform your balcony or rooftop into a green spot.

Use containers to plant seeds and grow plants, if you are short on space. Clay pots, terracotta pots, old sandboxes make great potting options. However, do remember to choose a pot according to plants you are planning to grow in it.

Size of the pot should be in proper proportion to the size of the plant. As a thumb rule, the container should be about one-third as tall as the plant (measured from the soil level to the highest leaf).

Your kiddo would also need basic gardening tools like rakes, hoes, spades, trowels, and watering cans. Invest in child friendly gardening tools, which adhere to child safety guidelines and are fit for your child's little hands.

Plants to Grow with Kids

Once your spot is set, you have chosen the pots and are ready with your tools, it's time to decide what to plant. When gardening with kids, it is a good idea to choose robust plants with strong smells and those that can grow quickly.

Children also like to snack on what they have grown, so pick plants that kids can eat too!

Vegetables to Grow with Kids

1. Lettuce

Lettuce is easy to grow and mature within 50-60 days in the growing season. These plants grow in shade and moist soil. It is a cool season crop so the best time to plant it is between February-April and September- November, when the temperature is neither very hot nor very cold.

2. Radish

Radish is another short growing season plant for kids who are not so patient. Radishes mature quickly within four weeks. It is a cool season crop, so plant it during winter months.

3. Snow Peas

These tasty snacks are a great hit with children! Easy to grow and quick to mature, snow peas are the ideal planting vegetable for kids. Their purple, yellow and white flowers will add beauty to your balcony or terrace garden and delight the kids. Sow them in mid-November to enjoy them by January.

4. Cherry tomatoes

These grow quickly and double up as a great snack. They are fun to grow and look just so adorable! However, when planting cherry tomatoes, it is best to use their seedlings instead of seeds. These warm season vegetable plants grow well in pots and containers, making them a must for your indoor garden for kids

Fruits to Plant with Kids

5. Strawberries

Your kids will simply love growing their own strawberries. These delicate fruits can be easily grown in pots or a small patch. It roughly takes four to six weeks to harvest and we bet your kids will adore picking them from their own strawberry patch. The best time to plant them is October–November and April–May.

6. Lemons

These citrus fruits are best for outdoor gardens. They can be harvested throughout the year and need little to moderate care. Harvesting starts when the tree is at least 4 months to a year old, so make sure your child is patient enough. Also it is a great joy to watch them grow from seeds into a sturdy lemon tree.

7. Pomegranate

Another fruit tree that is commonly grown in outdoor home gardens is pomegranate. These flowering trees can be planted between February and March. The fruit is borne nearly 7 months from planting, so plenty of patience is needed again for this fruit.

8. Orange

Add a dwarf orange plant to brighten up your child's gardening experience. These dwarf orange plants bear fruits that are super-cute and pretty but extremely sour. Nonetheless, these orange plants will add the color and smell to your garden.

Flowers to Plant with Kids

9. Sunflower

Sunflowers are every child's delight! These flowers follow the movement of the Sun and that makes them really exciting for kids. These bright yellow flowers can be planted in a patch or in pots, making them a great choice for gardening with kids.

10. Marigold

These beautiful yellow, orange and rust colored flowers are a great addition to your gardening adventure with kids. Perfect for indoor as well as outdoor settings, these flowers are easy to grow and maintain.

11. Cosmos

These sturdy plants are a must if you plan on adding flowers to your garden. They are self-seeding, robust plants with pretty flowers in pinks, reds and white. Really low maintenance, these flowers are perfect for kids who are just learning the basics of gardening.

12. Rose

Rose needs no introduction – It is the king of flowers. Choose a colour of your kiddo's choice and let these fragrant flowers blossom in your garden. They can be easily planted in pots as well as garden beds. Make sure to keep them in a sunny spot for the plant to flourish.

Herbs to Grow With Kids

13. Holy Basil

Holy Basil (Tulsi) is a staple plant of every Indian household. Packed with medicinal properties, these plants like sun and well drained soils. Plant the seeds in early spring to welcome your plant by summer.

14. Mint

These wonderfully aromatic herbs grow well in cooler climates. So plant them in fall in a loose well-drained soil. These plants like the sun so make sure to choose a sunny spot for planting in a garden bed.

15. Fennel

Another extremely aromatic herb, fennel is known for its digestive properties. Sow it in spring in a loose, nourished soil. Water regularly to keep the soil moist to help your herb grow.

Let's do some activities



Activities:

1. Pressed Flowers

Pressed flowers make beautiful keepsakes and immensely easy to do. All you need is a few sheets of old newspaper, cardboard and fresh flowers.

How to do it:

1. Lay a sheet of cardboard on the table.
2. Layer the cardboard sheet with two sheets of newspaper.
3. Place flowers on the newspaper.
4. Layer the flowers with another two sheets of newspaper and a sheet of cardboard at the top.
5. Add some books on the top or tuck the arrangement under your bed's mattress.



Your pressed flowers would be ready after 10 odd days. Take them out carefully. Your pressed flowers are ready! Use them to decorate bookmarks, wrapping sheets or hand-made cards.

Video link:

<https://www.youtube.com/watch?v=YO42PCrrGO8>

2. Make A Leaf Collage

This is an excellent craft for kids of all ages who love to craft. It also doubles up as a great STEM activity for kids. Collect fallen leaves of various shapes, sizes and colours.



Paste them on a white sheet to make an attractive leaf collage to showcase plant diversity of your neighborhood.

Video link:

<https://www.youtube.com/watch?v=c1yDMYS2J9M>

3. Garden Patterns

This is a great garden activity for little kids that doubles up as hands-on math activity. Let your children be little garden explorers and collect as many unique things from a nearby garden or park as they can. Be it acorns, leaves, seedpods or fallen flowers and fruits!

Once your child has her tinker tray of garden collectables ready, let her stamp them on fattened play dough to create patterns. Once patterning is complete, lay out the play dough in a sunny spot to dry.

Video link:

4. DIY Natural Paint Brushes

Children love paints! But this time, instead of using the regular store bought brushes, let them paint with brushes made out of grass and leaves.



What you will need:

- Grass
- Leaves

- Twigs
- Sticks
- Rubber Bands
- Tape

How to do it:

Step 1: Ask your child to collect fallen leaves, twigs, grass from a nearby garden.

Step 2: Using tape, make small neat bundles of grass or leaves that will be the head of your DIY paintbrush.

Step 3: Secure the grass/leaves head at one end of the wooden stick using rubber bands. That's all! Your natural paintbrushes are ready.

Let your child use these to paint their heart out and unleash the artist within them.

Video link:

<https://www.youtube.com/watch?v=GniDcHTDg6g>

5. Paper Plate Garden Craft:

Summary:

A garden can offer opportunities for youth to express their feelings, thoughts, and ideas. Engaging in activities that allow self-expression in garden spaces can provide a boost to mental and emotional health while connecting youth to the garden and to each other.

Materials

- rocks in assorted sizes
- paints and paint brushes or paint pens (nontoxic, acrylic)
- paint brushes
- sealant (optional)
- old t-shirts, smocks, or apron

Background Details

A research review on The Connection Between Art, Healing and Public Health was published in The American Journal of Public Health, looking at the advantages of expressive writing, movement-based creative expression, and visual arts therapy for health. Numerous studies on the social and emotional advantages of spending time in nature are available in the Research Library of the Children and Nature Network. What happens if you combine the two by taking part in imaginative pursuits that promote self-expression in a natural environment?

Kids would have the chance to assist in the design of the garden and choose the plants and unique features to include in a perfect youth garden setting. However, when a lot of children are using a garden (like in a school or public area), this level of participation might be challenging.



Creating the Foundation

To ensure that everyone has a great experience, it will be crucial to create the groundwork for using rocks to communicate in the garden. Instead of giving your pupils a fixed list of requirements, involve them in the process of developing the activity's rules collectively.

Start by letting them know that you are beginning a new project to spruce up your garden, one that will also let them leave notes for one another and the other living beings that call your garden home. Inform children that they will decorate pebbles and place them in the garden so that everyone can enjoy them.

Determine Standards

Before you begin, let them know that you will collaborate to develop a set of rules for the activity to make sure that everyone has a good time. Next, set guidelines for brainstorming with the group. To get them started, you might need to offer a few suggestions. Here are a few instances to think about:

All writing and artwork should be appropriate for school and thoughtful of others.

Keep in mind that each person's rock will be unique and special to them. Nobody should ever say anything negative or cruel about the rocks of another person.

Don't damage the surrounding rocks or the natural environment when you place your rock in the garden. (For instance, don't position it so that it.

Exploration

A variety of rocks in different sizes, shapes, and textures should be gathered; smoother rocks will be simpler to paint. Remove any dirt or debris, and, if water was used, allow the rocks to completely dry off.

Use paint pens or nontoxic acrylic craft paint to decorate the rocks. Students have the option of using conventional brushes or exploring other paint application techniques, such as using sponges, crumpled paper, cotton swabs, leaves, ferns, and pine needles. As this type of craft paint can stain, make sure children cover up their clothing with old shirts, art aprons, or smocks. You can let the pupils paint whatever they wish as the subject matter for their paintings. They can draw pictures, write inspirational quotes, or just utilize color.

Establishing Contacts

You can give them a collection of pre-painted garden pebbles that have words or letters in addition to the rocks that the students painted, and they can use those to leave passing notes. To ensure that it remains an enjoyable and motivating activity for everyone, you should remind them of the rules they created for their rocks.

Video link:

https://www.youtube.com/watch?v=r-pqn9Q_-48

6. Room to grow

Materials

- Drawing Paper
- 8 ½ x 11 in. White Paper (copy paper or computer paper)
- Crayons
- Tape
- Radish seeds
- Container, raised bed or in-ground garden space

Background Information

All plants need water, air, light, nutrients and a place to grow. Here is a brief description of how each of these needs contributes to plant growth and development:

Water - Plants need water for a number of important processes, including photosynthesis (production of food) and transpiration (evaporation of water from the leaves into air that cools the plant and creates pressure to move water from roots to leaves). Water also aids in the absorption of some nutrients.

Air - Plants take in carbon dioxide and oxygen to use during photosynthesis.

Light - Energy from light is captured to use during photosynthesis. Photosynthesis is the process by which plants make their food.

Nutrients - Just as people need vitamins, plants also need certain nutrients to help them grow properly and for their biological processes to function. Plants obtain most of their needed nutrients from the soil. Nutrients occur naturally in the soil as a byproduct of decomposition of organic matter and the weathering of rocks. They can also be added through fertilizer applications. *A special note: fertilizer is sometimes referred to as “plant food;” however, plants make their own food (carbohydrates) through the process of photosynthesis. Fertilizer is more accurately compared to a multi-vitamin.

Place to Grow - Plants need a place to call their own, where the roots can anchor, the stems can grow, and the leaves can capture light.

Although the needs of all plants are the same, how much they need of each of these components varies. Some plants need a lot of light to grow; others are

adapted to thrive in more shady conditions. Some plants use a lot of water on a regular basis, while others have features that conserve water and have lower water needs.

Ultimately, each plant grows best when they have the space that provides the basic needs in their optimum amounts. Gardeners can use this information to design gardens that maximize the harvest within the space they have available.

Laying the Groundwork

Divide your class into even numbers of small groups of 4 to 6 students. Ask each group to draw a mural of plants growing in a garden. Give half the groups the following supplies and space:

- a long sheet of drawing paper
 - enough crayons for each student
 - an unlimited area to draw
- Give the other half of the groups:

- a sheet of computer paper
- half the number of crayons as the size of the group
- restrict their group area to a 4-by-4 foot square taped on the floor

Give each group 5 minutes to draw. Display the resulting murals and then ask:

- How did you feel about your drawing experience? Did you have any problems? What were they? What do you think was different about the two groups' experiences?

Help the group focus on the contrast between having limited resources and having plenty of resources. Ask,

- Besides lack of space, what else was in short supply? What might happen if you never got enough of what you needed? How do you think a lack of space might affect plants?

Exploration

To explore how space can impact plant growth, set up an experiment to examine how radishes respond to crowding. This can be done in containers or in a raised bed or in-ground garden where you establish plots of equal size.

1. Obtain at least 5 pots of equal size or measure at least 5 identical 1-by-1 foot plots in raised or in-ground beds.

2. The recommended spacing for radish seeds is to sow them approximately 1 inch apart and then, when they're an inch or two tall, thin the seedlings to approximately 2 inches apart. Use this information to plant your pots or plots with different numbers of radish seeds. For easy comparison, you could plant in multiples of 5 (5, 10, 15, 20, 25, etc.) or choose other amounts based on the space you have available. Record how many seeds were planted and, ultimately, how many plants you grow in the pots or plots.
3. Ask students to write down their predictions for how the spacing will impact the growth of their radish plants.
4. After 4 weeks, harvest your radishes, making sure to keep track of which plot or pot they came from. Measure your plants — both the foliage and the root (radish) — and weigh them. Also ask students to evaluate the health of each plant based on appearance. Discuss the following:
 - Did the measurements of the radishes vary based on the amount of space they had to grow?
 - Did this data match your predictions?
 - Which plants looked the healthiest?
 - Can you make any conclusions about plant needs based on this experiment?

Making Connections

Knowing the space requirements of plants is important when planting a garden. Learn more about **Square Foot Gardening** and how gardeners can use this information to plot out a garden design especially in locations with limited space available. Use seed catalogs (printed or online), to discover space requirements of different plants and use this information to design your own dream garden.

Branching Out

Take a walk around your schoolyard or a nearby natural space and see if you can find examples of overcrowding. What do you think will eventually happen? Look for a large tree. How many plants do you find underneath?

Repeat the experiment above with different types of seeds and observe how different plants respond to varying space in terms of height and width. You may notice that some crowded plants will actually get taller as they compete for light.

Video Link:

<https://www.youtube.com/watch?v=5DJgr2cKgy4>

7. Create a School Garden:

A great idea to teach your children about how weather and environment affect the life cycle of plants is to create a planting calendar for the school garden. In order to emphasize the value of planting at the right time, a lesson on indoor seed-planting provides an illustration of how temperature affects germination.

Materials

Lima bean seeds, dried (from the soup bean aisle at the grocery store)

Printed towels

Use plastic cups

Building paper (optional)

Seed registries (optional)

Objective:

Students will:

- explore the impact of temperature on seed germination and plant growth
- research local weather patterns and the average first and last frost dates
- create a planting calendar based on what they have learned about plant needs and regional weather conditions.

Background Information



The success rate of your school garden can be considerably increased by selecting the best time to plant seeds, whether outdoors right away or indoors for later transplanting. There isn't a single ideal time to plant every kind of seed. In certain environments, different seeds will grow best. For instance, certain seeds could rot if they are put in cold, moist soil. Additionally, some might germinate, but the

chilly air will hurt the shoots. We'll examine how temperature impacts the germination of lima bean seeds later in this course. Let's first look at some of the variables that influence planting timings. When it's time to develop your unique planting calendar, having a thorough understanding of these elements will be crucial.

Depending on your locale, planting timings are closely

March						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4 Start tomato seeds indoors	5	6
7	8	9	10	11 Sow radish seeds in garden	12	13
14	15	16	17	18 Sow carrot seeds in garden	19 Start cucumber seeds indoors	20
21	22	23	24	25 Sow pea seeds in garden	26	27
28	29	30	31			

April						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 Sow lettuce seeds in garden	2	3
4	5	6	7	8 Start harvesting radishes	9	10
11	12	13	14	15 LAST SPRING FROST	16 Transplant tomato seedlings into garden	17
18	19	20	21	22 Plant bean seeds in garden	23 Transplant cucumber seedlings into garden	24
25	26	27	28	29	30	

May

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3	4	5	6 Start harvesting lettuce	7	8
9	10	11	12	13	14	15
16	17	18	19	20 Start harvesting peas	21	22
23	24	25	26	27	28	29
30	31					

June

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7	8	9	10 Start harvesting carrots	11	12
13	14	15	16	17 Harvest first tomatoes	18	19
20	21	22	23	24	25	26
27	28	29	30			

The average last spring frost date is April 15 on the sample calendar displayed.

Target harvest dates are additional factors to take into account, particularly for school gardens. You should arrange your spring garden calendar so that you can harvest your plants before the end of the school year if your garden won't be carefully maintained during the summer. You must choose plants that can be matured by the last day of classes.

You should search for plants that you can plant, nurture, and harvest if you want to create an autumn garden but wait to start seeds until the students return so they may be engaged in every stage of the process.

Deciding What to Grow

To determine what crops you'll be able to grow, create a planting calendar. Begin by marking a blank calendar with your average frost dates. Then make a list of plants of all the plants you'd like to grow. Research your selections to find out:

- the estimated time between seed planting and harvest
- if seeds are best directly seeded outdoors or should be started indoors, to later be transplanted outside

This information is usually available on the seed packet, but can also be found in seed catalogs and online resources.

Outdoor planting.

Some plants grow best when their seeds are planted directly in the garden (rather than starting them indoors). Examples include radishes, peas, carrots, and corn. Most seed packets will provide information on when to sow the seeds, usually in relation to the last spring frost date. Here are some examples:

Radishes: Sow seeds of this cool-season crop directly in the garden about 4 to 6 weeks before the average last spring frost date.

Corn: Sow seeds for heat-loving corn in your garden after your last spring frost date or once soil is at least 65 degrees F.

Pumpkin: These seeds require warm soil, so plant seeds a week or two after the last spring frost date.

Seed catalogs and packets will also tell you the number of days to harvest. Use your calendar to determine if you have enough time between the recommended planting date and your target end date to grow them. If yes, add them to your calendar. If no, remove them from your choices.

Indoor Planting.

For seeds that can be started indoors, seed packets, catalogs, and online resources will tell you when they should be started indoors, when to plant the seedlings outdoors, and how much time until harvest. Find the total amount of time needed from seed to harvest and work backwards from your targeted end date.

If you're planning a fall garden that you want the students to be able to plant, do you have enough time after school starts to plant them? If yes, add to your calendar. For a spring garden, check to see how many weeks this puts you before your average last frost dates to determine how many weeks they would need to grow inside. Compare this time frame with the recommendation for how many weeks to grow indoors to see if the timing matches for you.

Tips for Creating Your Calendar

As you move through this process, remember you have lots of options. Choosing plants that will grow well for you in the time you have available will increase your chances of success.

For more details and recommended planting dates read [**When to Plant Seeds**](#). Germination and days to harvest dates are just estimates. Factors such as temperature, along with water and nutrient availability, can also contribute significantly to speed of growth and maturity.

Use Kids Gardening's [**Interactive Spring Planting Calendar**](#) to automatically calculate planting dates by entering your last spring frost date. (Note: To open the PDF file you may need to [**download free Acrobat Reader**](#).)

Does Temperature Affect Lima Bean Seed Germination and Growth?

This indoor seed-planting activity illustrates the effect of temperature on germination to help reinforce the importance of planting at the proper time.

Advanced Preparation

Soak lima bean seeds (enough for at least one per student) in water for at least 4 hours to overnight.

Laying the Groundwork



After soaking, the skin on this kidney bean slipped off and the bean split open to reveal the tiny plant inside.

Pass out at least one paper towel and a soaked lima bean seed to each student. Carefully have them peel back the seed coat and open up the seed and find the new baby plant inside.

Ask, what does the seed need to start growing?

You will likely get responses that match the needs of a mature plant, including water, air, light, and nutrients, so you may need to ask the prompt, What about temperature? Does the temperature affect whether seeds will start to grow? What kind of impact do you think it has? Share with the students that you are going to explore whether temperature affects seed growth.

Exploration

Have each student make a seed viewer using dried lima beans, a clear plastic cup and wet paper towels. To make a seed viewer:

1. Cut a piece of construction paper into a rectangular strip to fit inside the plastic cups. This is optional, but it helps with viewing.
2. Ball up a few pieces of paper towels and place them inside the construction paper liner until the cup is full.
3. Place 3 to 4 lima beans in the cup between the side of the cup and the paper towels or construction paper liner so the seeds are visible from the outside of the cup.

Gently water the paper towels in the center until saturated.

4. Ask student to brainstorm different places you could place the cups to test if air temperature impacts seed growth. Ideas may include: a windowsill, in a refrigerator, in a freezer, in a dark closet, and outside. For best results, put multiple cups in each location.
5. Take the temperature at each location as you place them and record again daily as you observe your viewers.
6. Track the growth of your seeds for 2 weeks, making sure to keep the paper towel moist at all times (you may need to add water to some of your samples depending on their location).
7. Compile your results and compare the germination rate of the seeds and growth of your young seedlings to the temperatures collected in each location. Ask, does temperature impact seed growth and development? What kind of connection did we see? What does this mean for our garden?

Making Connections

Your seed viewers should reveal that cooler temperatures can slow and/or prevent germination. Explain that gardeners and farmers have to be careful to plant at the right time so that seeds can grow when planted. Introduce the

science behind the average first and last frost dates then find out the dates in your area by contacting your local Extension Office. As a class, work together to create a planting calendar for your school garden (it can be a real garden or your dream garden) using the steps listed in the Background Information. You can find timing information on seed packets, in seed catalogs, online, and you can also use the new Kids Gardening as a tool.

Share your calendar with friends, families, and your community

Video Link:

<https://www.youtube.com/watch?v=xb4-adJEk-8>

LET'S DO SOME FUN ACTIVITY





Plant a Tree

Plants Need



Water

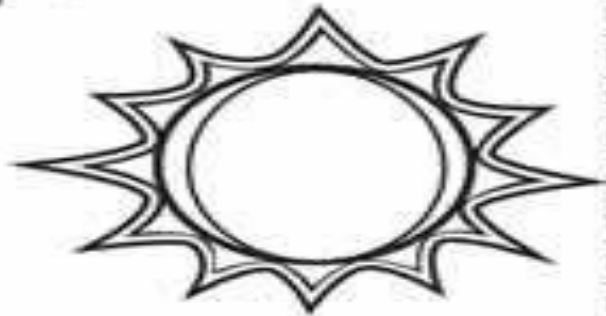


Air

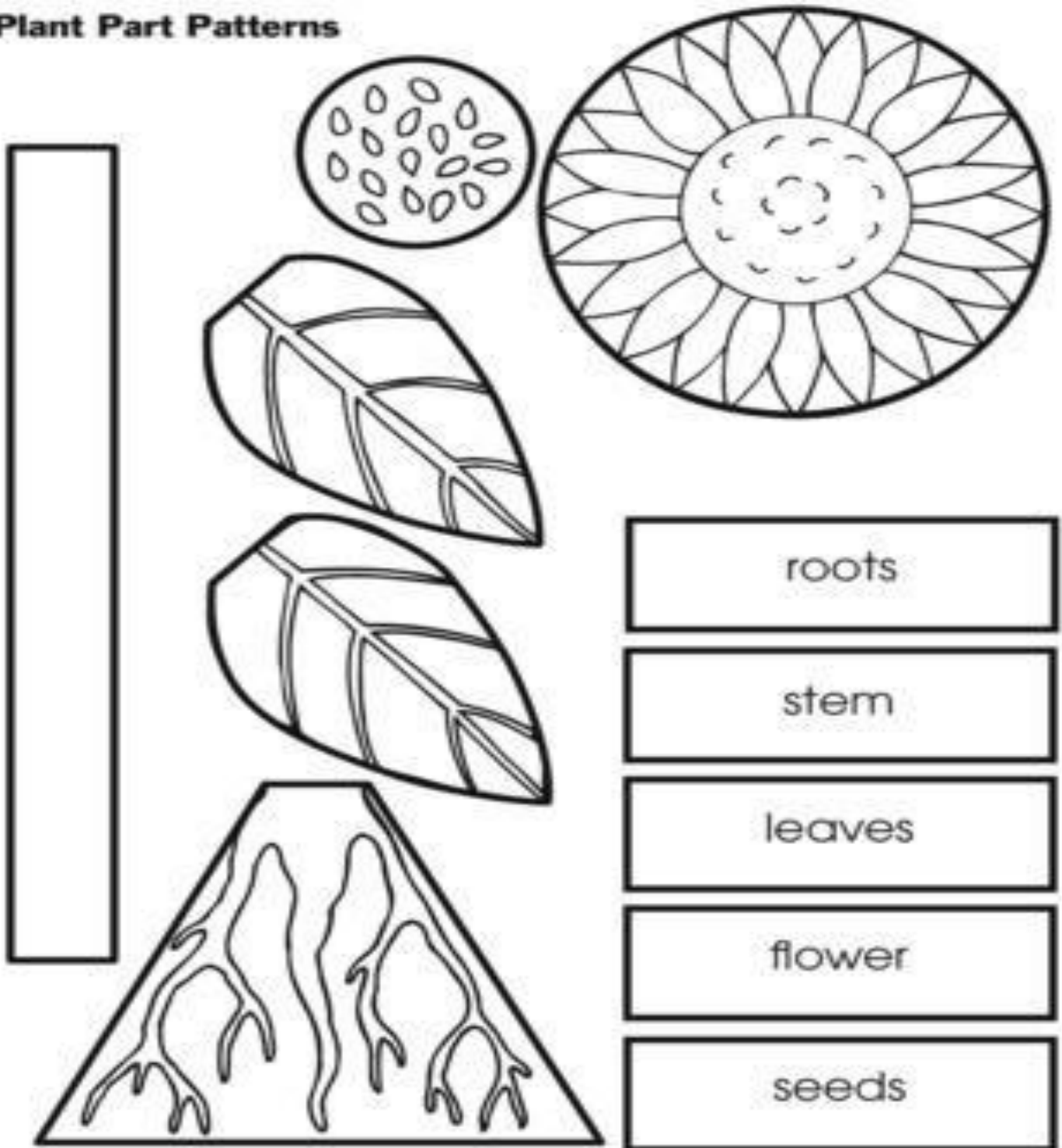


Soil

Sun



Plant Part Patterns



Plant Life Cycle

Name: _____ Date: _____

plant

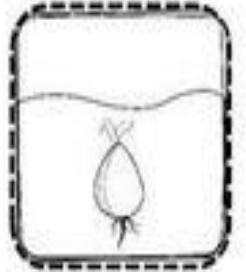
seed

seedling

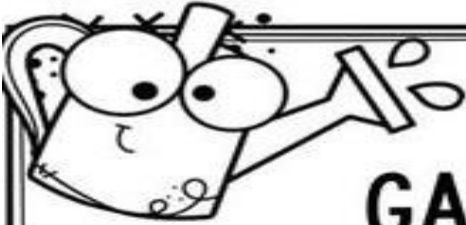
sprout

Directions:

Color and cut out the stages below. Glue them in the correct plant life cycle order.



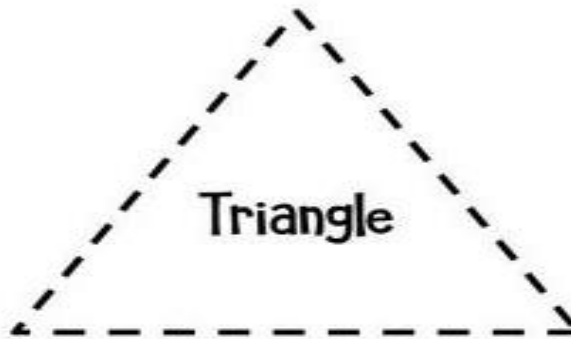




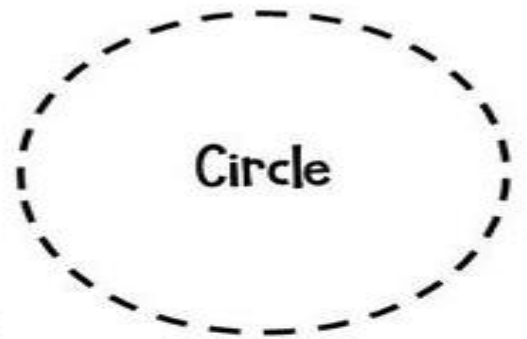
Name _____

GARDENING SHAPES

Directions: Help the kids plan the garden by tracing the shapes.



Triangle



Circle

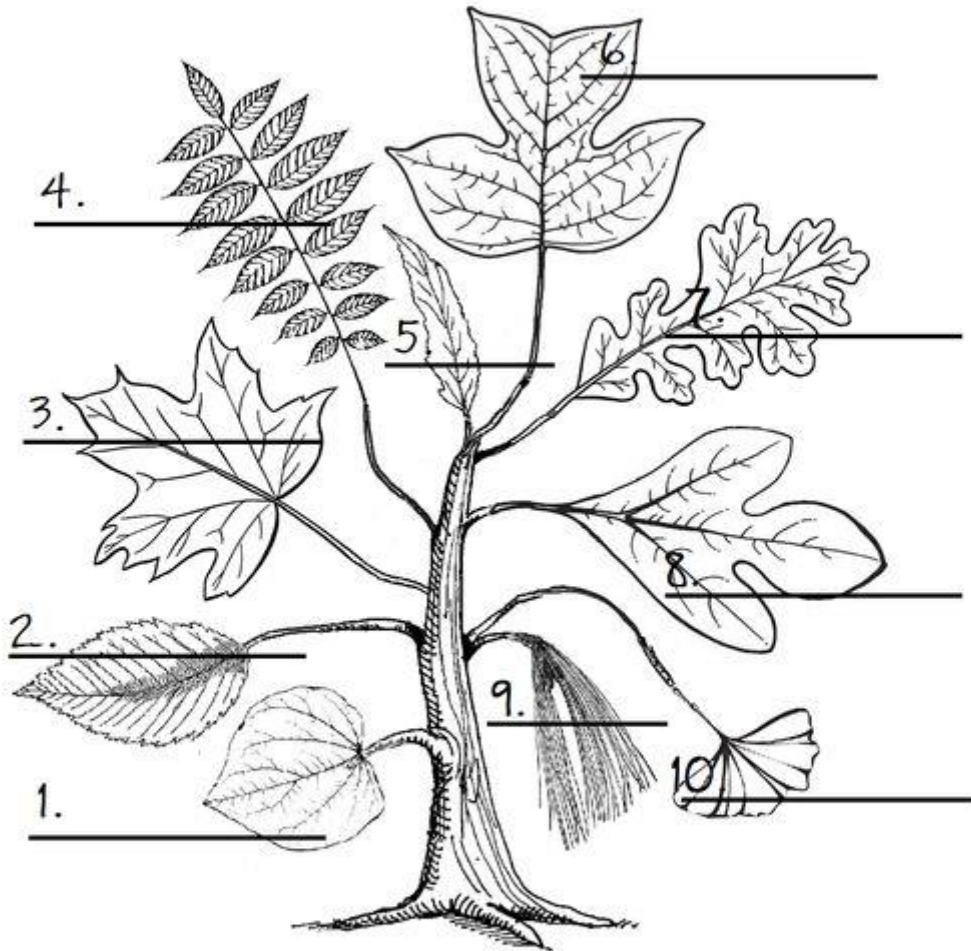


Square



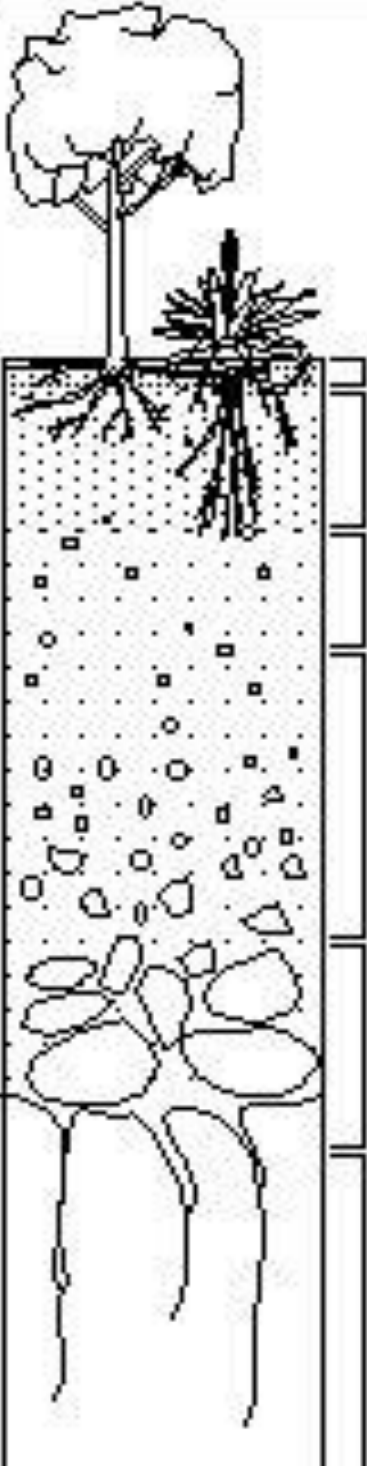
Rectangle

Label The Leaves



- | | | | | |
|--------------|-------|--------|-----------|---------|
| Tulip | Pine | Oak | Elm | Willow |
| Black Walnut | Maple | Ginkgo | Sassafras | Red Bud |

Soil Layers



**MY GARDEN IS READY SO IT'S TIME TO GIVE
WATER TO PLANTS LETS DO IT WITH ME**

THANK YOU!

