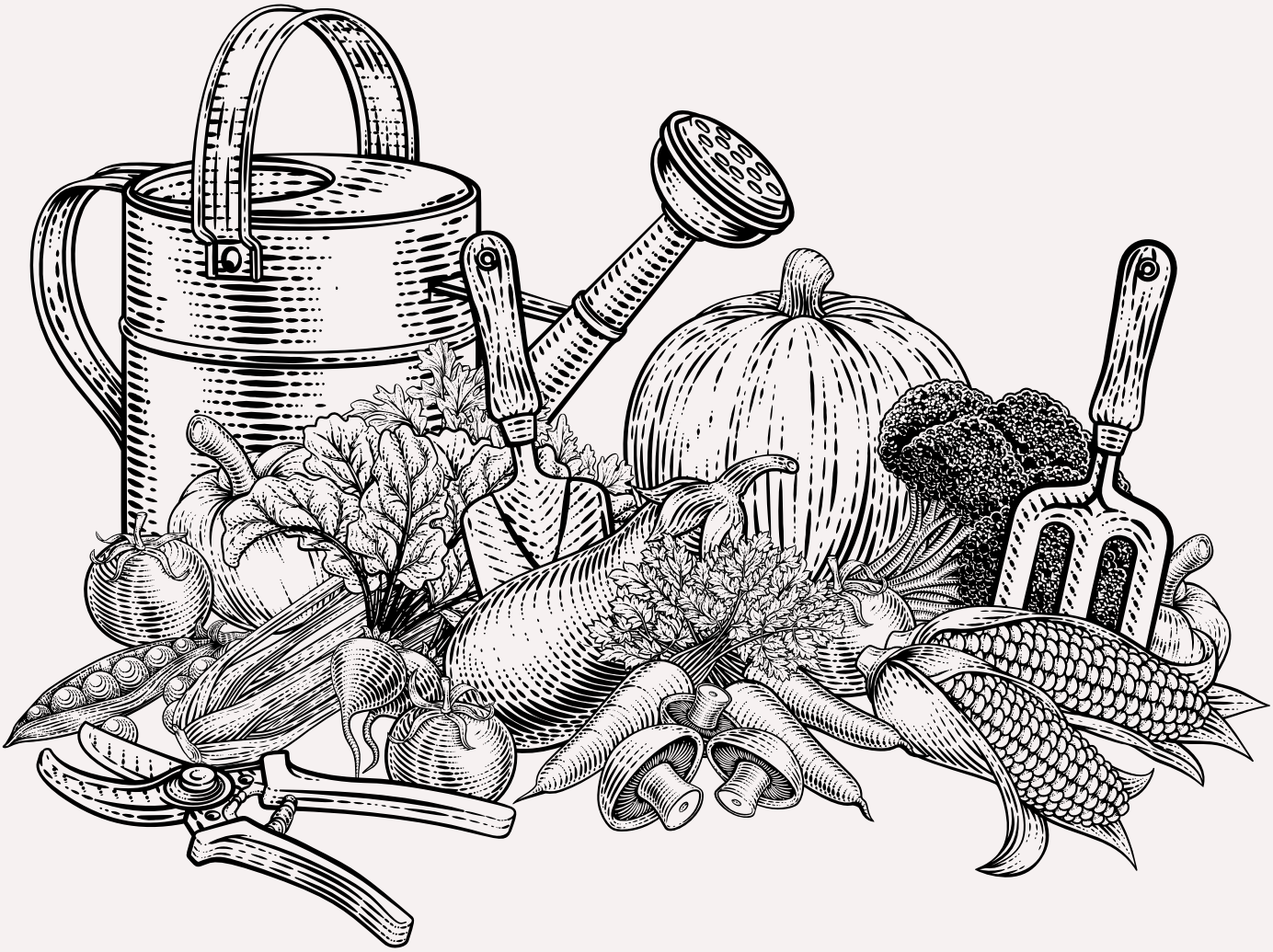
OLIVE BRANCH

Homeschool Learning Co.

FARMSTEAD GARDEN STUDY



LEARNING ABOUT THE PROCESS OF GARDENING AND THE LIFE CYCLE OF A SEED.

A Farmstead Faith & Service Mini Unit

Olive Branch Learning Co.

Hi! I’m Katie, a homeschool mom and the creator behind Olive Branch Learning Co.

Our family believes some of the best learning happens outside — digging in the soil, observing nature, and discovering the beauty of God's creation
.
This garden study is a small glimpse into the Farmstead Faith & Service curriculum, where children learn through hands-on experiences rooted in faith, nature, and practical skills.

I hope this study inspires curiosity and joy as your family explores the wonderful world of gardening.

HOW TO USE THIS STUDY:

This study can be used:

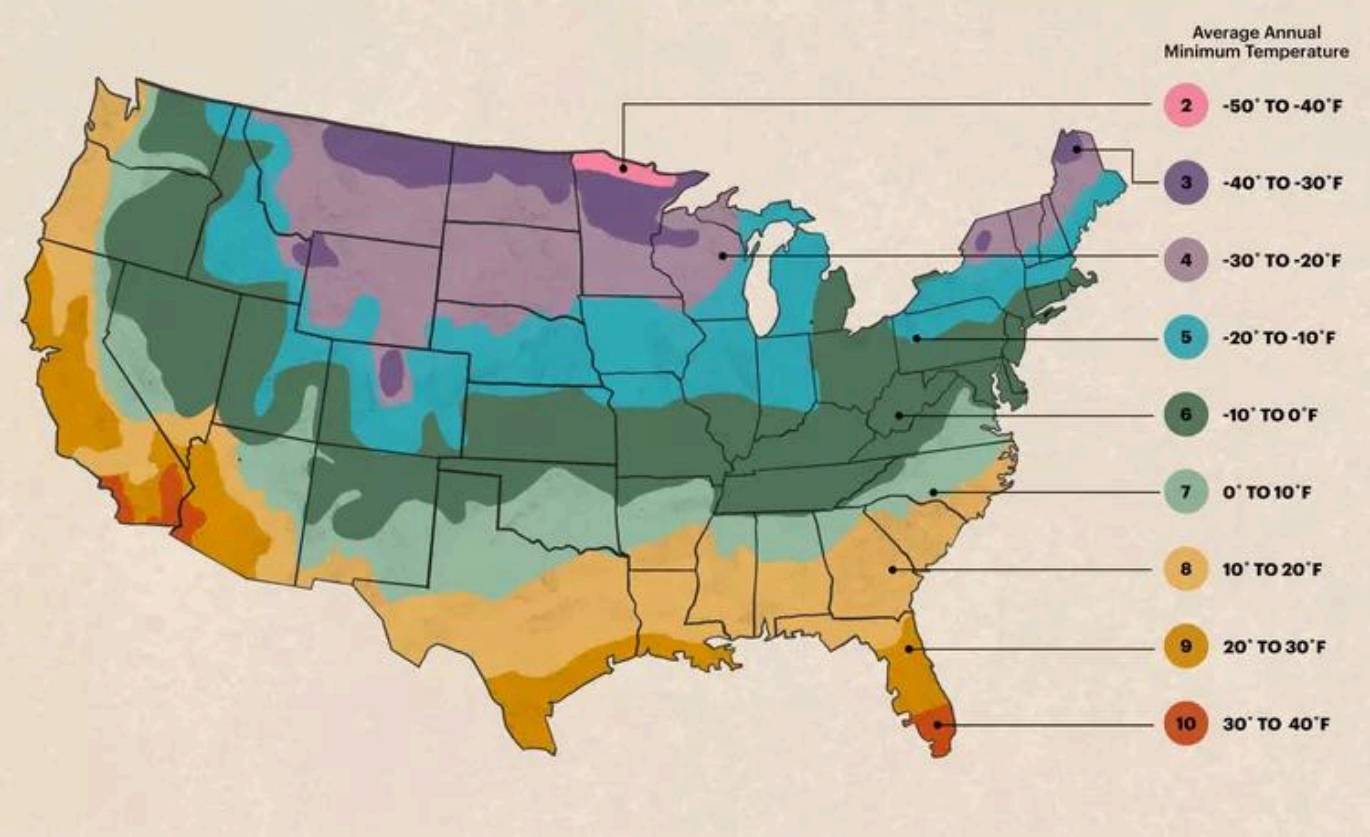
- as a one-week nature unit
- alongside planting a family garden
- as part of a science study
- for mixed ages K–5

Suggested pacing:

Day 1 – Seeds and plant life cycle
Day 2 – Climate and sunlight
Day 3 – Water and photosynthesis
Day 4 – Starting your garden
Day 5 – Hands-on projects

CLIMATE

Where you live determines your climate, and your climate determines what you can grow.



The Hardiness zones as defined by the USDA begin with zone 1, which is the coldest (it includes parts of Alaska) and end with zone 13, which encompasses the warmest growing areas, such as Hawaii and the Florida Keys

Exploring Climate

Discuss Together

Look closely at the climate map.

1. What colors do you notice on the map?
2. Which areas look warm?
3. Which areas look cold?
4. Why might different plants grow better in different climates ?

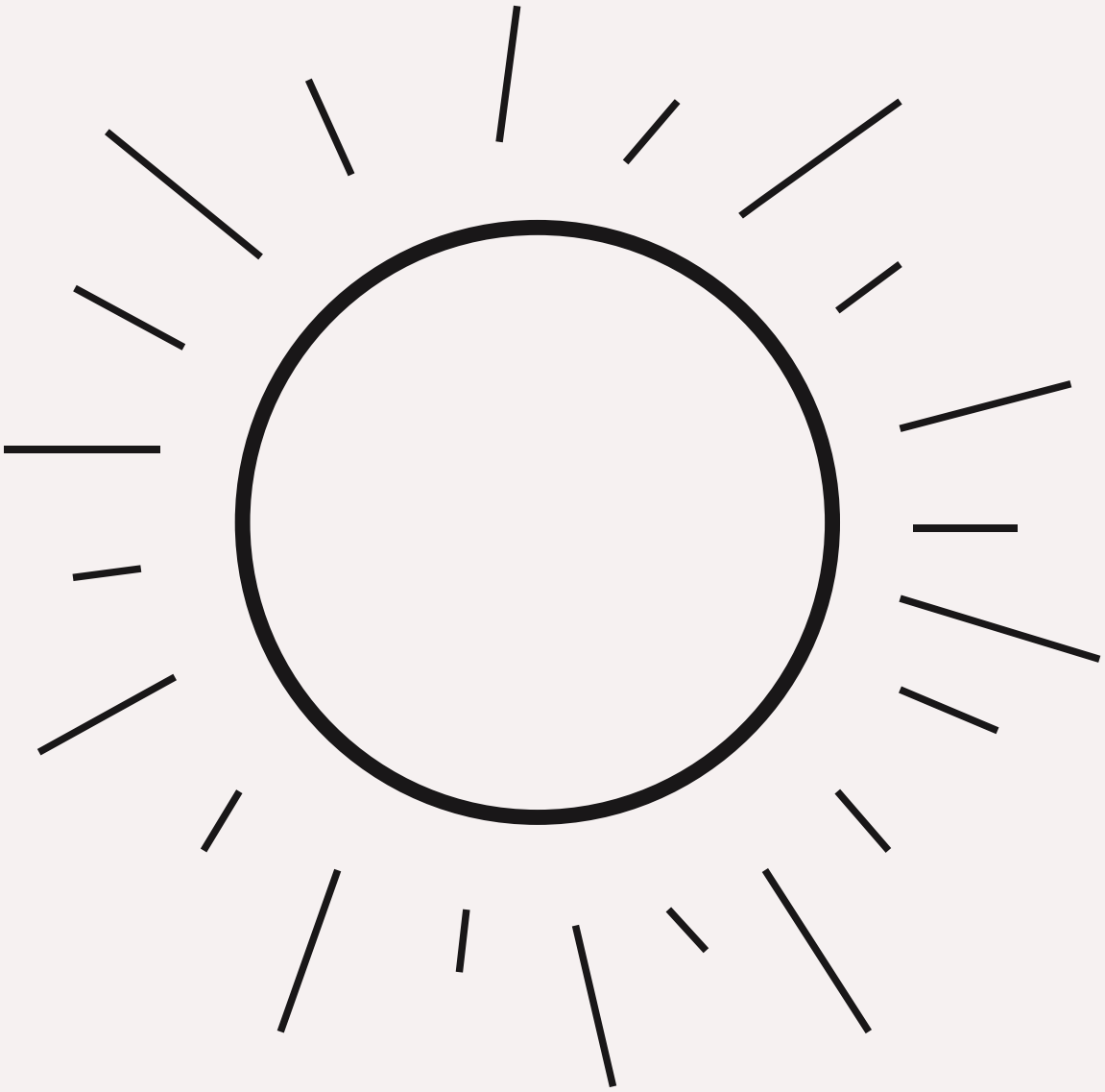
Activity

Find where you live on the map.
Write your state here:

Look up your USDA hardiness zone.
Our growing zone is:

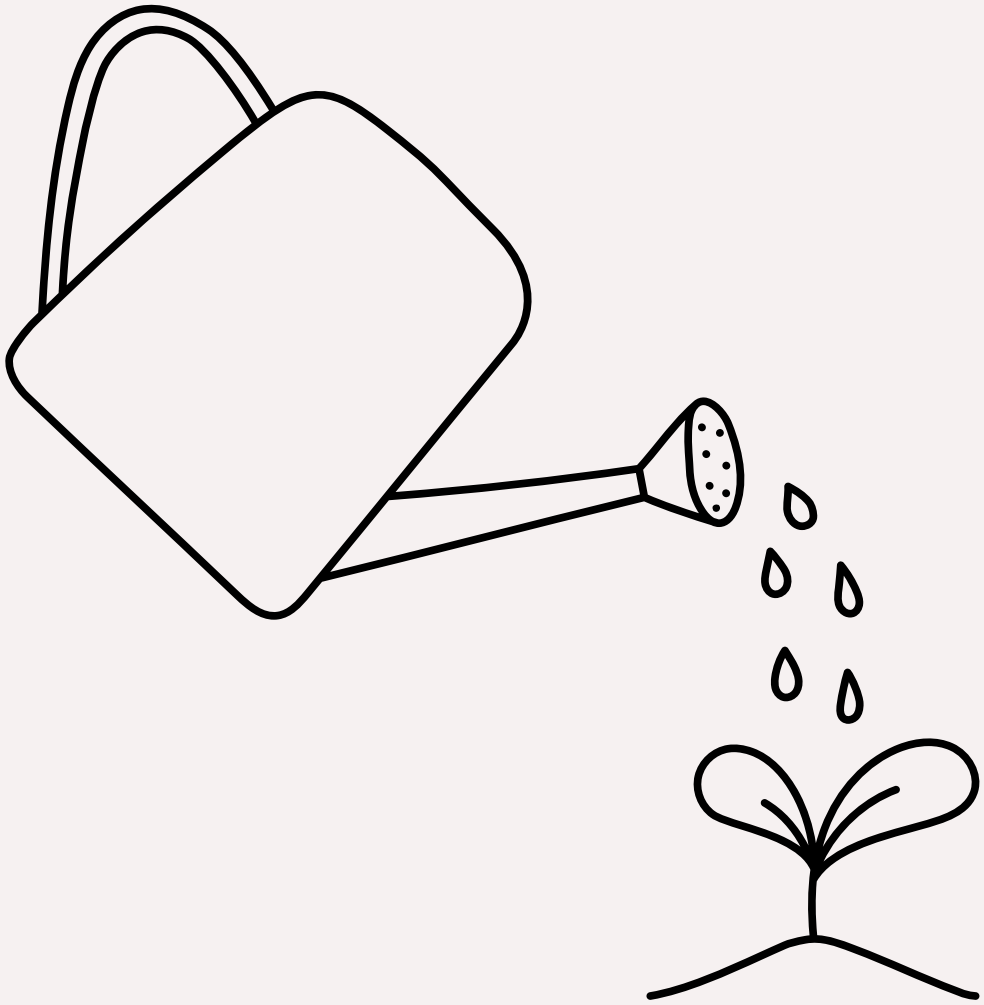
Think About It
Why is it important for gardeners to understand their climate?

SUNLIGHT



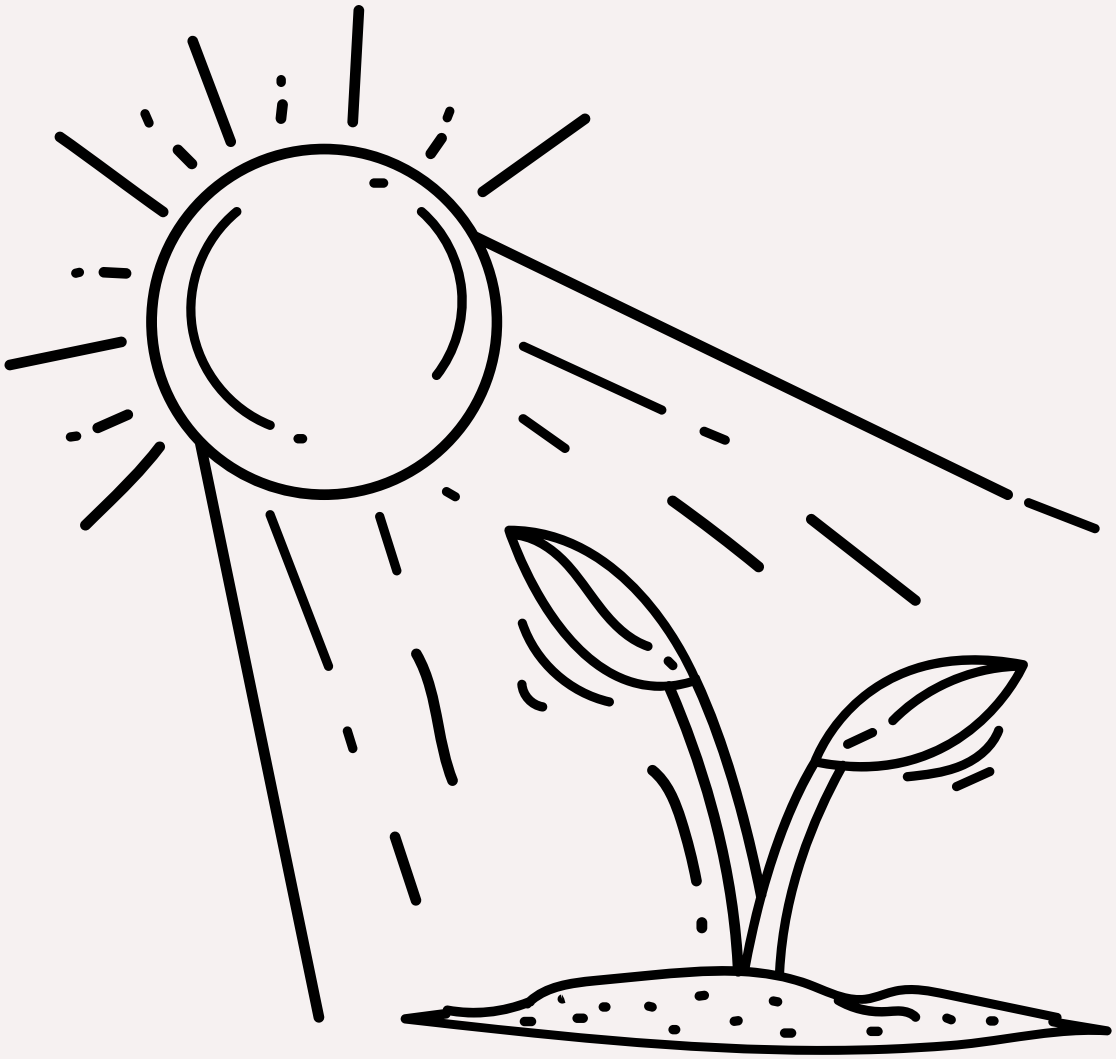
Most garden vegetables need a lot of direct sun light. This may be all-day sunshine or full afternoon sun. Many wildflowers, bulbs, succulents, and fruiting veggies (think peppers, tomatoes, and melons) prefer full sun.

WATER



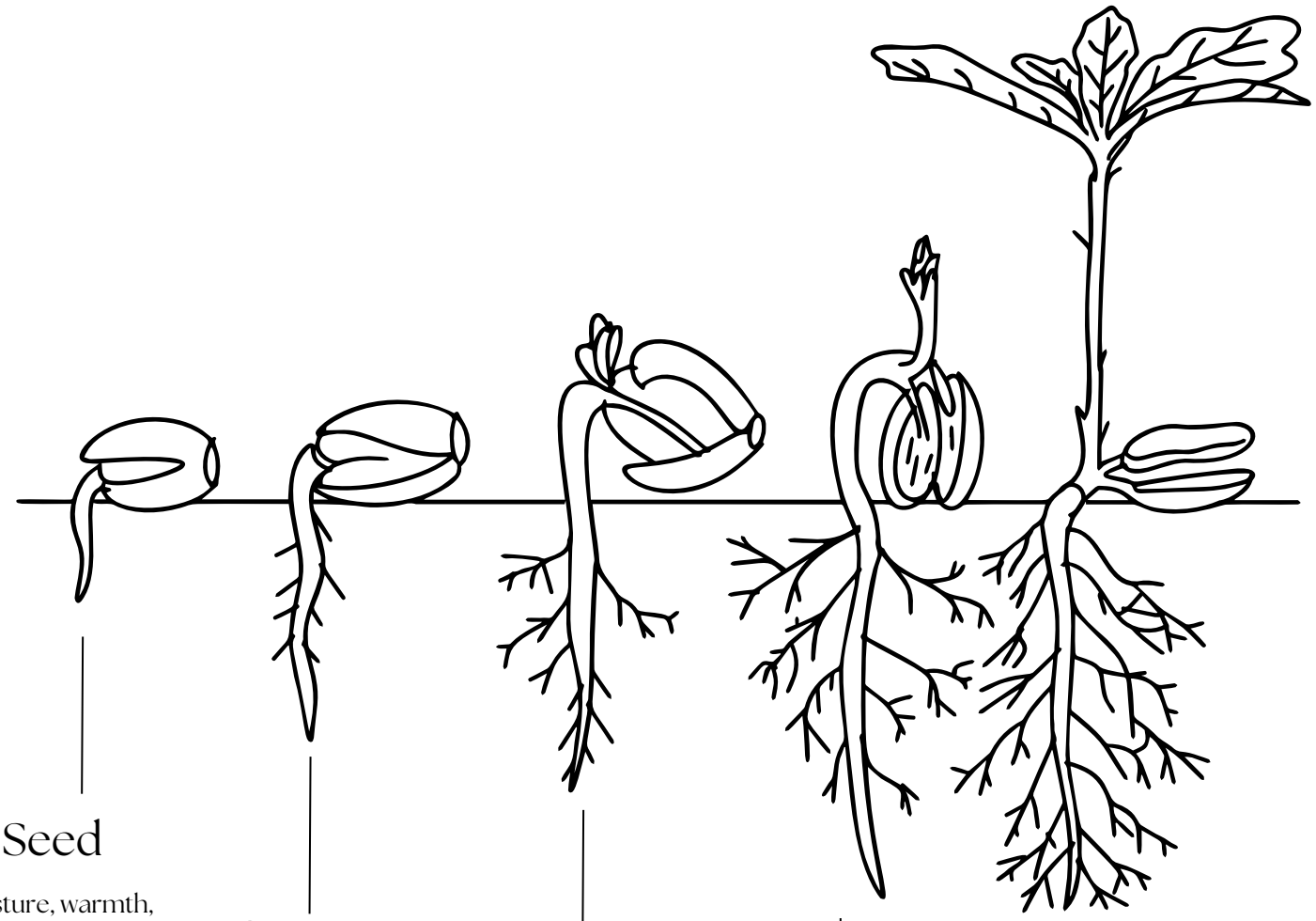
Plants need water to grow! Plants are about 80-95% water and need water for multiple reasons as they grow including for photosynthesis, for cooling, and to transport minerals and nutrients from the soil and into the plant.

PHOTOSYNTHESIS



Photosynthesis is the process in which green plants use sunlight to make their own food. Photosynthesis is necessary for life on Earth. Without it there would be no green plants, and without green plants there would be no animals. Photosynthesis requires sunlight, chlorophyll, water, and carbon dioxide gas.

THE LIFE CYCLE OF A SEED



Seed

Moisture, warmth, and air begin the process of germination.

Germination

The seed softens and the root pushes through the seed coat

Shoot

The new plant grows out of the ground, reaching for sunlight.

Seedling

The first two leaves emerge and begin to make food for the plant.

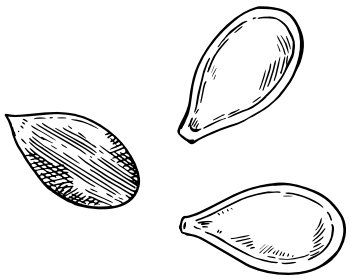
Mature Plant

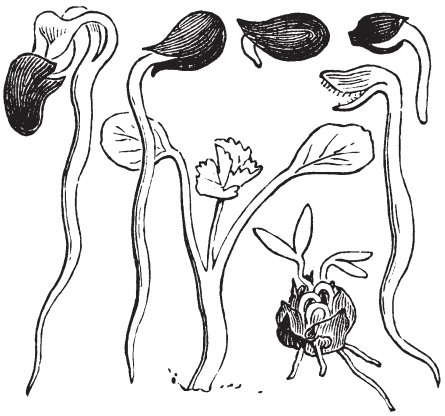
Six to eight weeks following germination the plant reaches adulthood and begins to make flowers which are fertilized through pollination.

Life Cycle of a Seed
VOCABULARY

SEED COAT:

the outer layer of a seed





GERMINATION:

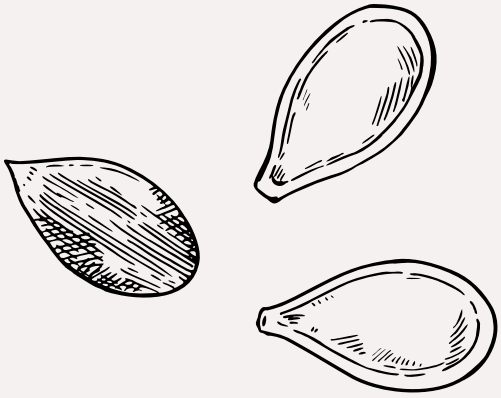
the development of a plant from a seed

SEEDLING:

a young plant grown from a seed

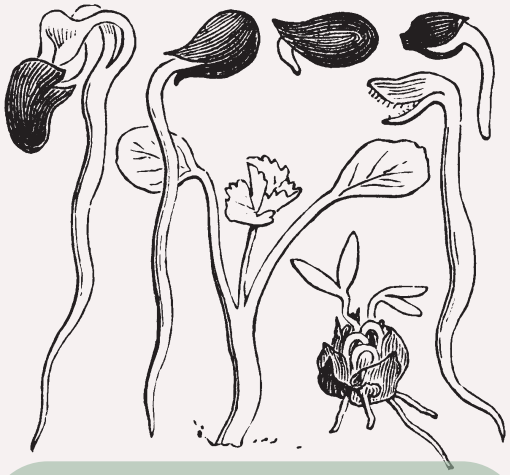
POLLINATION:

The transfer of pollen from male to female flowers



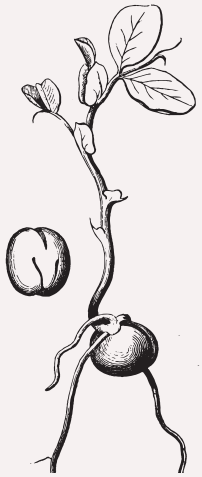
SEED COAT

the outer layer of a seed



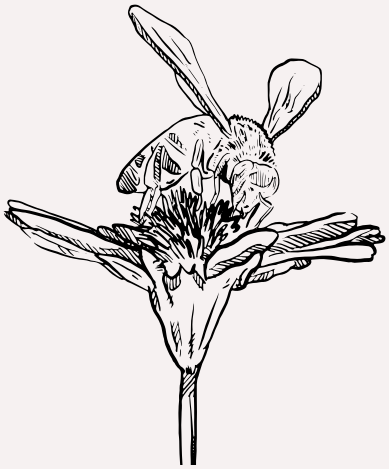
GERMINATION

the development of a plant from a seed



SEEDLING

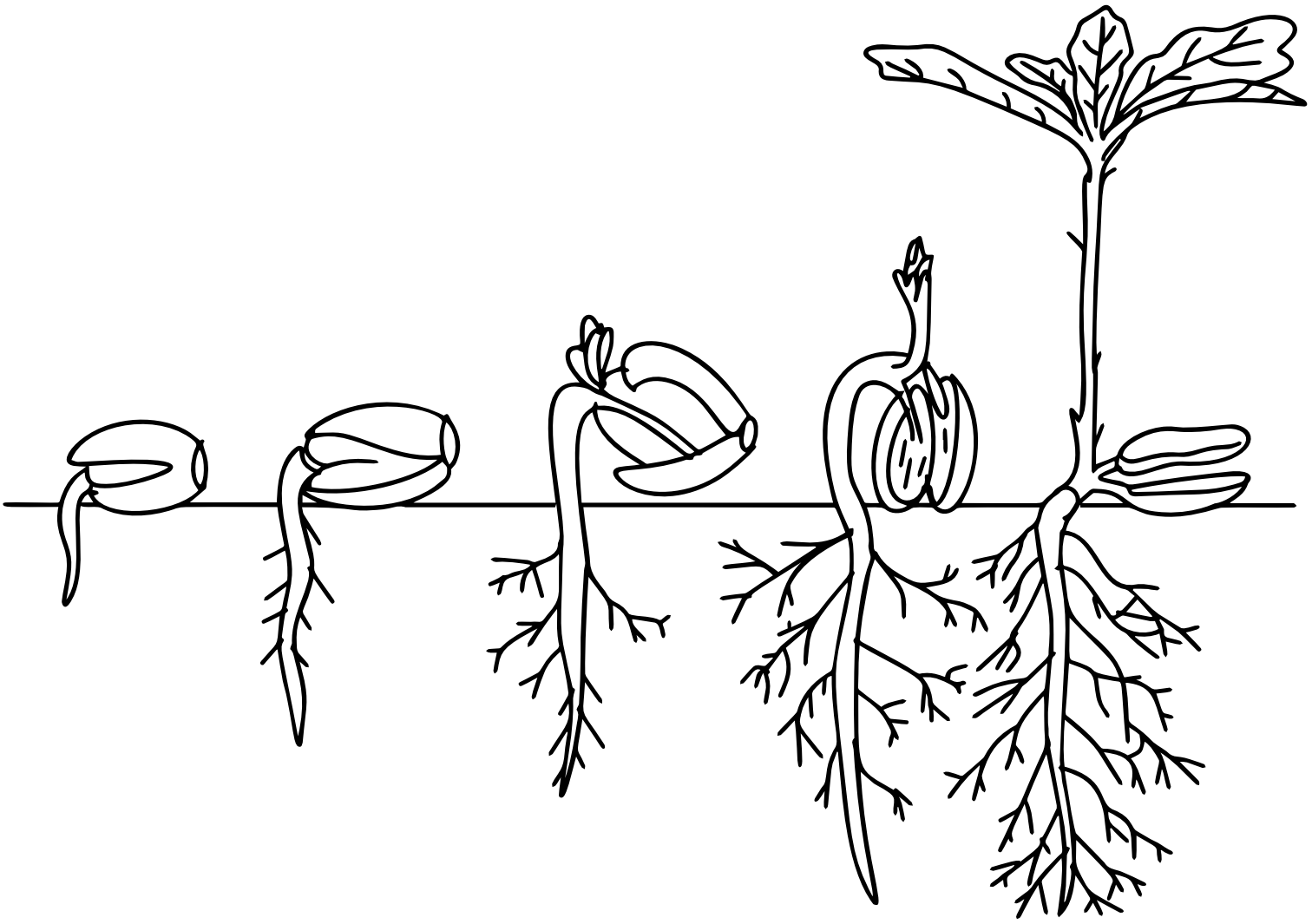
a young plant grown from a seed



POLLINATION

The transfer of pollen from male to female flowers

LIFE CYCLE OF A SEED



Cut out the labels for the life cycle of a seed and paste onto the proper stage.

Seed

Seedling

Shoot

Germination

Mature Plant

GOD'S GARDEN

by Dorothy Frances Guney

The Lord God planted a garden
In the first white days of the world,
And He set there an angel warden
In a garment of light enfurled.

So near to the peace of Heaven,
That the hawk might nest with the wren,
For there in the cool of the even
God walked with the first of men.

And I dream that these garden-closes
With their shade and their sun-flecked sod
And their lilies and bowers of roses,
Were laid by the hand of God.

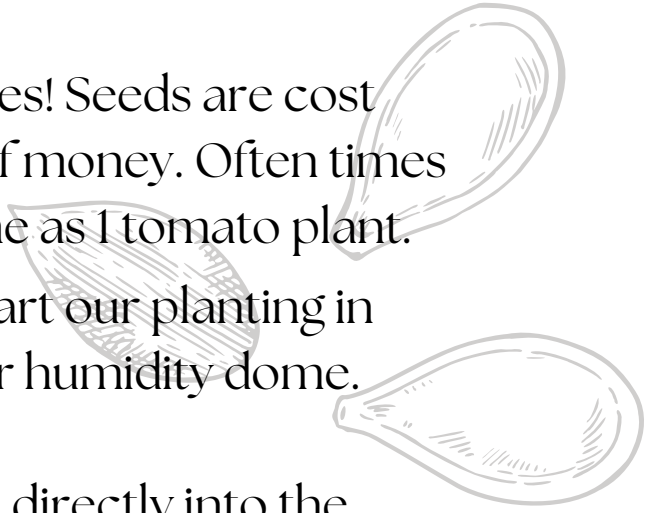
The kiss of the sun for pardon,
The song of the birds for mirth,--
One is nearer God's heart in a garden
Than anywhere else on earth.

For He broke it for us in a garden
Under the olive-trees
Where the angel of strength was the warden
And the soul of the world found ease.

Starting your garden with *seeds or seedlings*

All plants come from seeds. When planting a garden of your own, you may choose to start your garden from seed, or purchase seedlings from your local plant nursery.

SEEDS

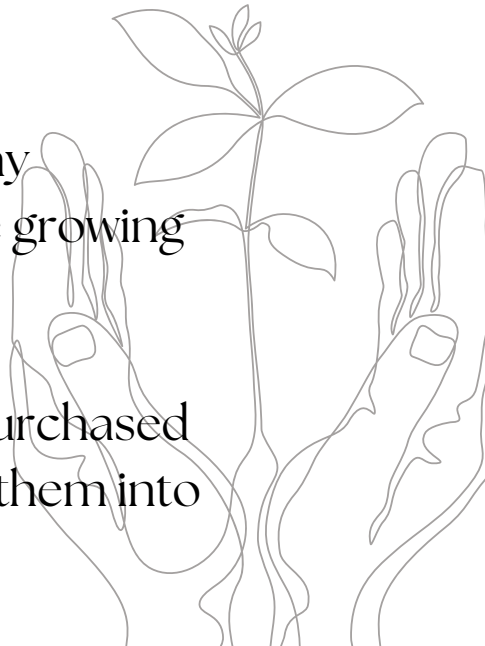


Growing from seed has a lot of advantages! Seeds are cost effective, meaning they don't cost a lot of money. Often times a bag of 100 tomato seeds costs the same as 1 tomato plant.

Typically when growing from seed, we start our planting in winter, indoors, using a GREENHOUSE or humidity dome.

However, some plants prefer to be sown directly into the garden and do not need, or like to be started indoors.

SEEDLINGS



Transplanting seedlings into your garden has many advantages, giving your garden a head start to the growing season.

Whether you started your seedlings at home or purchased them from a nursery it is important to transplant them into your garden with great care.

Starting your garden

Direct Sow or Transplant

Direct Sow: planting by seed directly into garden bed

Transplant: transfering a seedling into a garden bed.

Plants to Direct Sow

- arugula
- beets
- carrots
- cilantro
- corn
- dill
- garlic
- lettuce
- onions
- parsnips
- peas
- potatoes
- radishes
- rutabagas
- spinach
- turnips

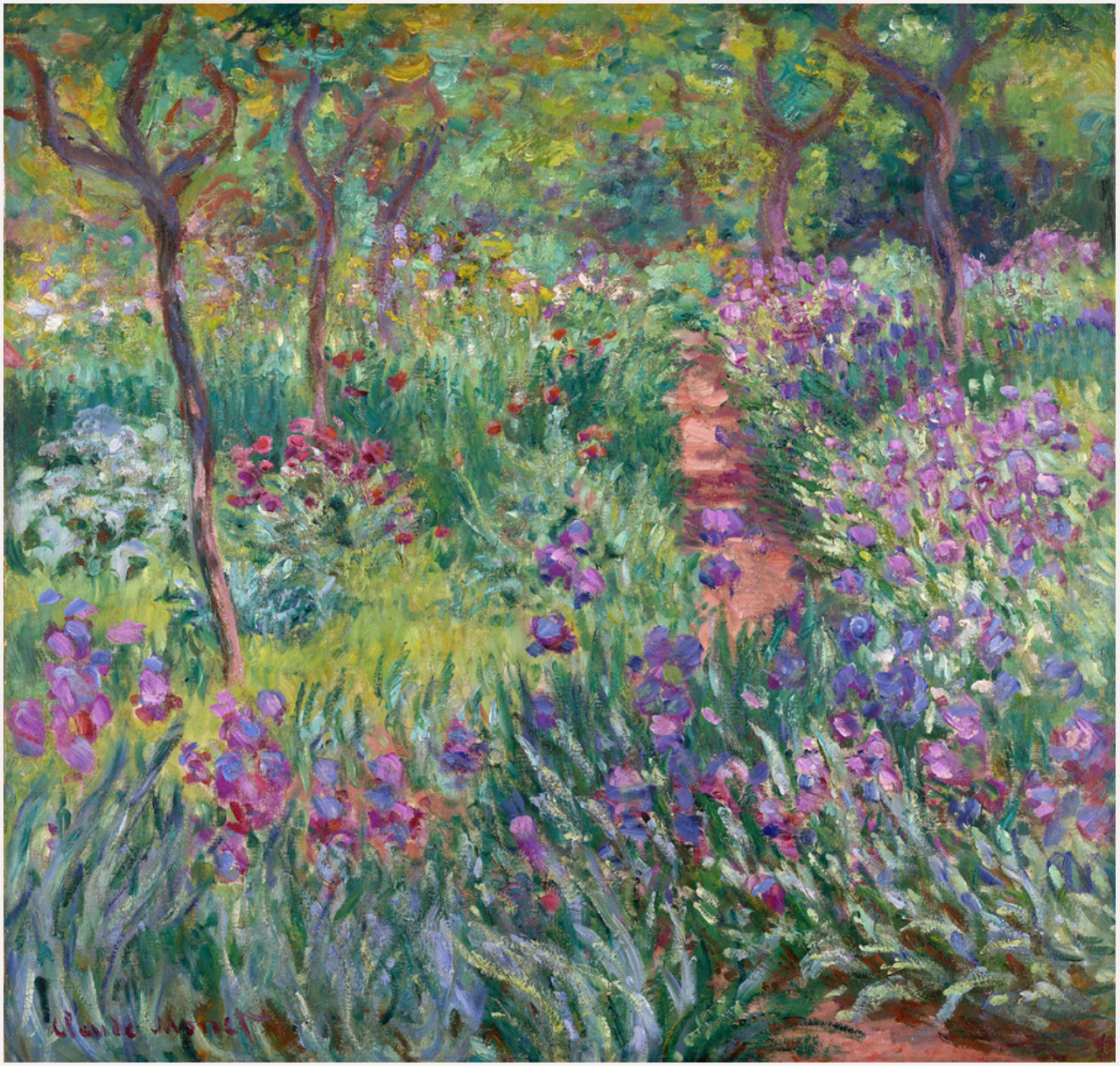
Plants to Transplant

- artichokes
- asparagus
- celery
- eggplant
- mint
- peppers
- rhubarb
- rosemary
- sage
- strawberries
- sweet potatoes
- thyme
- tomatoes

Plants to Direct Sow or Transplant

- basil
- beans
- bok choy
- broccoli
- Brussels sprouts
- cabbage
- cauliflower
- chives
- collards
- cucumbers
- dill
- endive
- fennel
- kale
- leeks
- lettuce
- melons
- parsley
- pumpkins
- scallions
- squash
-

The Artist's Garden at Giverny



(French: Le Jardin de l'artiste à Giverny) is an oil on canvaspainting by Claude Monte done in 1900, now in the Musée d'Orsay.

GARDENING
Creative Activities

Make a Mini Greenhouse

Make a mini green house and watch the seed germination process!

Materials Needed:

- Plastic Bag
- Tape
- Damp paper towel
- Seeds

Directions:

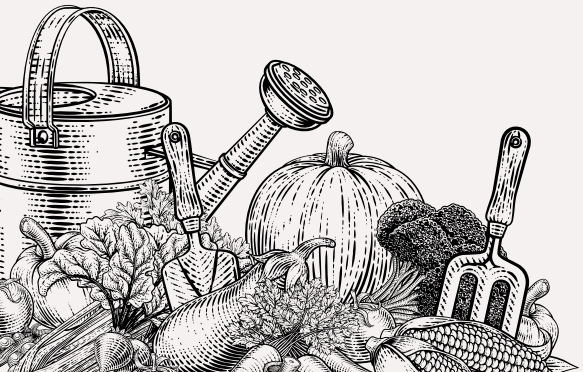
Fold a damp paper towel inside a clear plastic bag and place the seeds along one side of the bag, pressing them against the papertowel. Seal the plastic bag and hang in a sunny window using tape.

Clay garden markers

Create cute and practical garden markers to identify all the wonderful plants growing in your garden!

Materials Needed:

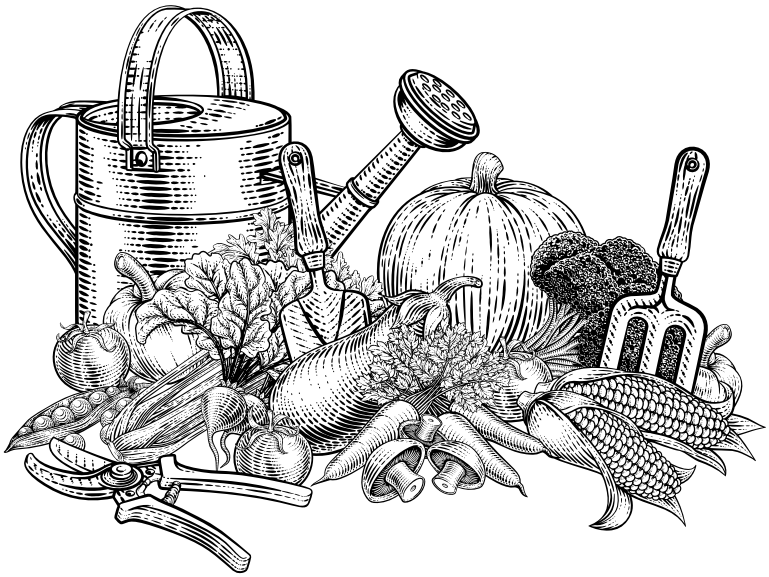
- air-dry clay
- rolling pin
- butter knife
- rimmed baking sheet
- rubber alphabet stamps
- oven



Directions:

Roll clay into 1 1/4 inch balls. Roll each ball into a long, even rope about 5-5.5 inches. Using the rolling pin, flatten the rope into a flat rectangle approximately 1/4 inch thick.
Using the dull side of the butter knife, trim one end straight across and the other end into a point (like a stake). Trim the long sides to make them straight. Shape the markers with your hands if needed and transfer them to a baking sheet.
Using rubber stamps, indent the names of the plants into the garden markers.
Bake the clay according to directions on the package.

Gg



GARDEN