# CLIMATE CHRONICLE

SCIENTIST'S NAME: _____

## Warm-Up Activity

**Directions:** Complete the Climate-themed word search. As you find each word in the scramble, highlight or circle it. As you find the words, think to yourself if you've ever heard of that word before and, if so, what you know about it. If you don't recognize a word, put a star next to it and keep an eye out for it as you progress through the lesson.

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| T | E | T | N | E | M | N | O | R | I | V | N | E | G | S | E |
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| I | O | E | E | B | A | B | E | R | G | L | O | T | P | M | U |
| A | U | R | E | F | A | R | R | L | E | U | F | O | I | B | D |
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| S | E | Y | C | A | R | B | O | N | D | I | O | X | I | D | E |
| R | S | A | G | E | S | U | O | H | N | E | E | R | G | L | B |

| | | | |
|---|---|---|---|
| Climate Change | Drought | Green | Weather |
| Temperature | Carbon Footprint | Greenhouse Gas | Biofuel |
| Flooding | Pollution | Fossil Fuel | Environment |
| Carbon Dioxide | Global Warming | Sustainability | Extension |
| Renewable Energy | Methane | Biodiversity | Recycle |



## Glossary of Terms: Climate Change

Adaptation: Taking actions to avoid, benefit from, or deal with current and future climate change. Adaptation can take place in advance (by planning before an impact occurs) or in response to changes that are already occurring.

Atmosphere: A mixture of nitrogen, oxygen, carbon dioxide, and other gasses that surrounds the Earth. The atmosphere is critical to supporting life on Earth.

Biofuel: A type of fuel produced from plants or other forms of biomass. Examples of biofuels include ethanol, biodiesel, and biogas.

Carbon: A chemical element that is essential to all living things. Carbon combines with other elements to form a variety of different compounds. Plants and animals are made up of carbon compounds, and so are certain minerals. Carbon combines with oxygen to make a gas called carbon dioxide.

Carbon dioxide: A colorless, odorless greenhouse gas. It is produced naturally when dead animals or plants decay, and it is used by plants during photosynthesis. People are adding carbon dioxide into the atmosphere, mostly by burning fossil fuels such as coal, oil, and natural gas. This extra carbon dioxide is the main cause of climate change.

Carbon footprint: The total amount of greenhouse gasses that are emitted into the atmosphere each year by a person, family, building, organization, or company. A person’s carbon footprint includes greenhouse gas emissions from fuel that he or she burns directly, such as by heating a home or riding in a car. It also includes greenhouse gasses that come from producing the goods or services that the person uses, including emissions from power plants that make electricity, factories that make products, and landfills where trash gets sent.



Climate: The average weather conditions in a particular location or region at a particular time of the year. Climate is usually measured over a period of 30 years or more.

Climate change: A significant change in the Earth's climate. The Earth is currently getting warmer because people are adding heat-trapping greenhouse gasses to the atmosphere. The term "global warming" refers to warmer temperatures, while "climate change" refers to the broader set of changes that go along with warmer temperatures, including changes in weather patterns, the oceans, ice and snow, and ecosystems around the world.

Drought: A period of unusually dry weather lasting long enough to cause serious shortages of water for ecosystems and human use (such as drinking water and agriculture) in the affected area.

Ecosystem: A natural community of plants, animals, and other living organisms and the physical environment in which they live and interact.

Emissions: The release of a gas (such as carbon dioxide) or other substance into the air.

Energy: The ability to do work. Energy comes in many forms, such as heat, light, motion, and electricity. Most of the world's energy comes from burning fossil fuels to produce heat, which can then be converted into other forms of energy, such as motion (for example, driving a car) or electricity.

Ethanol: A type of alcohol that can be produced from different forms of biomass, such as agricultural crops. Ethanol can be burned as a fuel, often by blending it with gasoline.



Fossil fuel: A type of fuel that forms deep within the Earth. Examples of fossil fuels include coal, oil, and natural gas. Fossil fuels are created over millions of years as dead plant and animal material becomes trapped and buried in layers of rock, and heat and pressure transform this material into a fuel. All fossil fuels contain carbon, and when people burn these fuels to produce energy, they create carbon dioxide.

Geothermal energy: Heat from inside the Earth. People can use geothermal energy to heat buildings or produce electricity.

Global climate: The average climate around the world.

Global warming: An increase in temperature near the surface of the Earth. Global warming has occurred in the distant past as the result of natural causes. However, the term is most often used to refer to recent and ongoing warming caused by people's activities. Global warming leads to a bigger set of changes referred to as global climate change.

Greenhouse gas: Also sometimes known as "heat trapping gasses," greenhouse gasses are natural or manmade gasses that trap heat in the atmosphere and contribute to the greenhouse effect. Greenhouse gasses include water vapor, carbon dioxide, methane, nitrous oxide, and fluorinated gasses.

Habitat: The place or environment where a plant or animal naturally lives and grows.

Heat stroke: A medical condition that results from being exposed to high temperatures. A person's body temperature rises rapidly and he or she is unable to cool down by sweating.

Heat wave: A long period of abnormally hot weather, typically lasting for several days.



Magma: Hot, melted rock under the Earth's crust. Magma becomes lava when it is released through a volcano or other methods.

Methane: A colorless, odorless greenhouse gas. It occurs both naturally and as a result of people's activities. Methane is produced by the decay of plants, animals, and waste, as well as other processes. It is also the main ingredient in natural gas.

Natural gas: A fossil fuel that is an odorless, colorless gas. Natural gas consists of 50 to 90 percent methane.

Nitrous oxide: A colorless, odorless greenhouse gas. It occurs both naturally and as a result of people's activities. Major sources include farming practices (such as using fertilizers) that add extra nitrogen to the soil, burning fossil fuels, and certain industrial processes.

Nonrenewable resource: A natural resource that cannot be produced, regrown, or reused fast enough to keep up with how quickly it is used. Fossil fuels such as coal, oil, and natural gas, for example, take millions of years to develop naturally. Thus, their supply for people to use is considered nonrenewable.

Ozone: A gas made up of three atoms of oxygen bonded together. High in the atmosphere, ozone naturally shields the Earth from harmful ultraviolet radiation that comes from the sun. Closer to the Earth's surface, ozone is a pollutant that is formed by other pollutants that react with each other. Ozone is also a greenhouse gas.

Passive solar heating: The use of windows, building materials, and other features to take advantage of sunlight to heat the inside of a building.



Permafrost: Soil or rock that is frozen year-round. Permafrost can be found in many parts of Alaska, northern Canada, and other countries near the Arctic Ocean. Even though the soil at the surface of the Earth may not be frozen during the warmer months, a layer of permafrost may exist several feet below.

Positive feedback loop: A process in which one change leads to another, which then causes even more of the original change. In climate change, a positive feedback loop occurs when warming causes changes that lead to even more warming. For example, as the Earth gets warmer, the amount of ice that covers the Arctic Ocean is shrinking, which leaves more open water. Ice reflects a lot of sunlight back into space, while the open ocean is dark and absorbs more of the sun's energy, making the Earth warmer. Thus, melting ice causes the Earth to absorb more energy from the sun and become even warmer.

Precipitation: Rain, hail, mist, sleet, snow, or any other moisture that falls to the Earth.

Rain gauge: An instrument that measures the amount of rain that has fallen in a particular place.

Regional climate: An average of the weather in a particular area over many years. Regional climate influences which kinds of plants and animals can live in a particular area. Factors that influence regional climate include latitude, landforms, nearby bodies of water, and circulation patterns in the ocean and the atmosphere.

Renewable resource: A natural resource that can be produced, regrown, or reused fast enough to keep up with how quickly it is used. Wind, tides, and solar energy, for example, are in no danger of running out and can be consumed by people virtually forever. In contrast, fossil fuels such as coal take millions of years to develop naturally and are considered nonrenewable.



Smog: Air pollution caused by chemical reactions of various pollutants emitted from different sources. Ozone is one of the main ingredients of smog, and it can harm people's health.

Solar energy: Energy from the sun, which can be converted into other forms of energy such as heat or electricity.

Solar panel: A device that can convert energy from the sun into energy for people to use. Some types of solar panels convert sunlight directly into electricity. Others use sunlight to heat water, which can then be used to provide heat or hot water to a building.

Solar thermal technology: A system that uses sunlight to heat water or create steam, which can then be used to generate electricity.

Subtropics: The parts of the Earth immediately north and south of the tropics. The southern part of the United States is considered subtropical.

Thermal expansion: The increase in volume of a material as it gets warmer. For example, water expands as it is heated, causing each drop of water to increase in size. In the ocean, thermal expansion is one cause of rising sea level.

Tidal power: A form of renewable energy generated from the natural rise and fall of the ocean.

Tides: A variation in the surface level of the oceans caused by the gravitational pull of the moon and sun. Tides fluctuate between high and low twice a day.

Tropics: The parts of the Earth near the Equator, which are very warm all year long because they receive a lot of direct sunlight.

Uranium: A heavy, naturally radioactive, metallic element that is used to produce nuclear power.



Water vapor: Water that is present in the atmosphere as a gas. Water vapor is a greenhouse gas and plays an important role in the natural greenhouse effect. Clouds form when extra water vapor in the atmosphere condenses to form ice, water droplets, and precipitation.

Weather: The condition of the atmosphere at a particular place and time. Some familiar characteristics of the weather include wind, temperature, humidity, atmospheric pressure, cloudiness, and precipitation. Weather can change from hour to hour, day to day, and season to season.

Wetland: An area of land that is periodically saturated with water, which influences the types of plants and animals that can live there. Wetlands include swamps, marshes, bogs, and other similar areas.

Wind turbine: A machine that converts energy from the wind into electricity. The wind spins a set of blades connected to a generator.



## Climate Change: The Basics

**Directions:** As you work your way through the Climate Change: The Basics interactive presentation, answer the corresponding prompt questions that you see below as you are instructed to do so in the presentation.

**Write down what you know about climate change, before we hear from Mrs. Jones.**

_____

_____

_____

_____

**The types of weather conditions I can think of are:**

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

**One thing I think might be contributing to our Earth's changing climate is…**

_____

_____

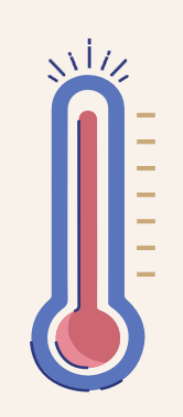
_____



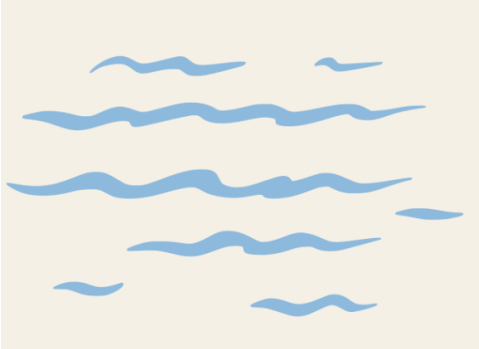
## Climate Change: The Basics, *cont.*

**Directions:** As you work your way through the Climate Change: The Basics interactive presentation, answer the corresponding prompt questions that you see below as you are instructed to do so in the presentation.

**Unscramble the words next to each picture below to discover just some of the impacts of climate change.**



Rising temperatures



Rising sea levels

Drought

Forest fires



## Climate Change: The Basics, *cont.*

**Directions:** As you work your way through the Climate Change: The Basics interactive presentation, answer the corresponding prompt questions that you see below as you are instructed to do so in the presentation. Use the extra Notes space below to jot down any ideas or questions that spark from the presentation.

**A few ideas that I have for how I personally can combat climate change in my school, home, and community are:**

- 
- 
- 
- 

**Notes:**

*"What you do makes a difference, and you have to decide what kind of difference you want to make." -Dr. Jane Goodall*



## Climate vs. Weather

**Directions:** Read each scenario below. For each, indicate whether you think it is describing an area's climate or weather patterns. For climate, circle the pink globe/thermometer icon. For weather, circle the clouds/sun icon.

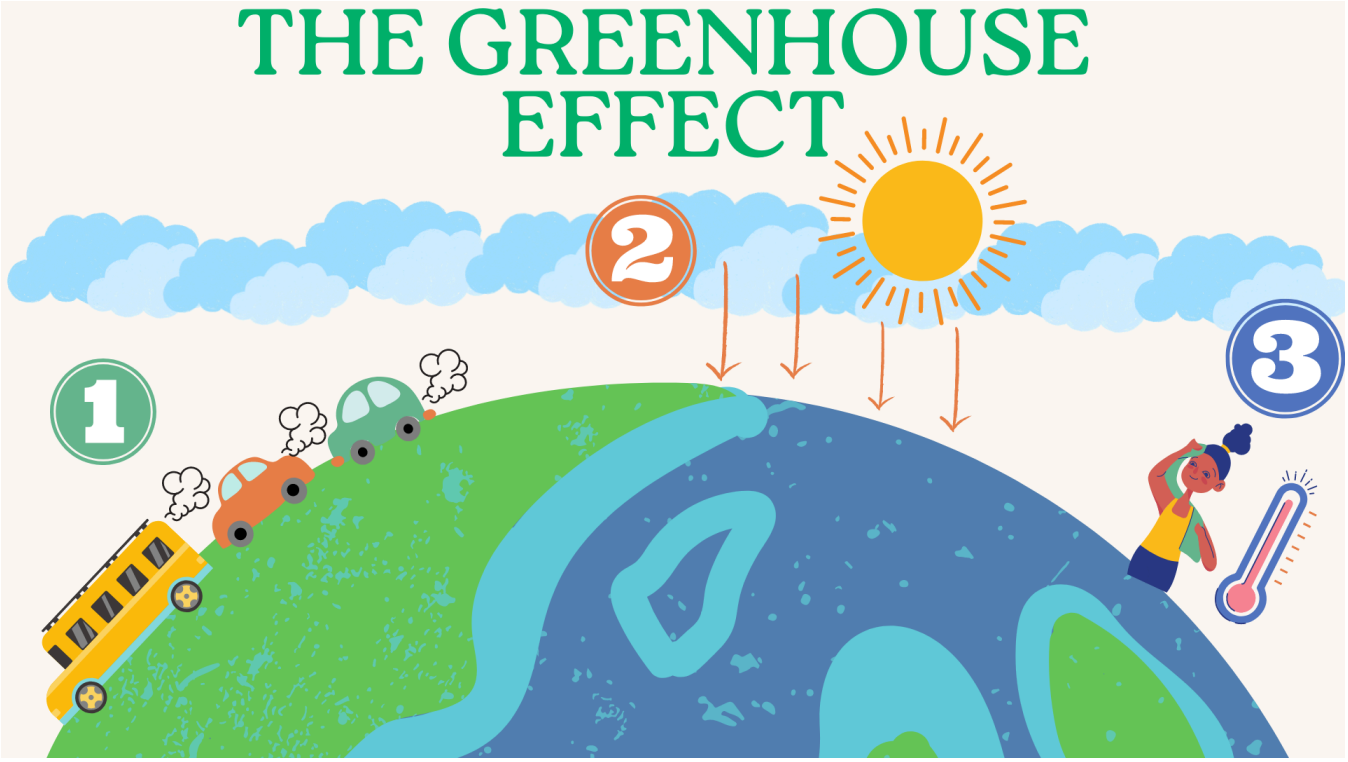
# CLIMATE VS. WEATHER

1. The conditions of the atmosphere over a short time.
2. The average temperature and precipitation in an area over a long period of time.
3. The leaves turning colors and falling off the trees.
4. Florida getting hit by a hurricane.
5. The average temperature in Aruba is 90 degrees Fahrenheit.
6. The Arctic is dry in the winter since, with such low temperatures, very little water evaporates into the atmosphere.
7. The rainbow after a storm was beautiful.
8. The Sahara Desert is one of the driest, hottest regions on Earth.



## Human Contribution to Climate Change

**Directions:** Look at the diagram below. Recall what you learned from the Interactive Presentation to correctly label what action is taking place in Steps 1, 2, and 3 on the diagram below.




**Step 1:**

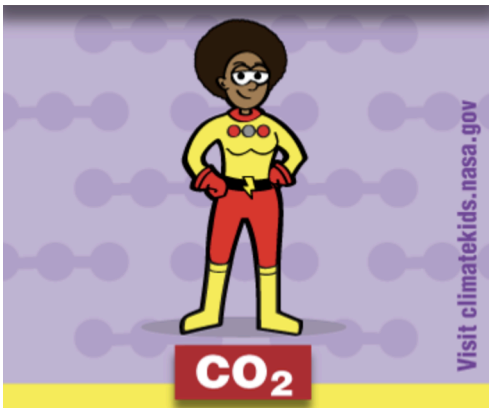
**Step 2:**

**Step 3:**

## Meet the Greenhouse Gases

**Directions:** After reviewing each Greenhouse Gas' profile, correctly label each of them with their scientific name.


**Name:** _____




**Name:** _____


**Name:** _____

## Meet the Greenhouse Gases

**Directions:** After reviewing each Greenhouse Gas' profile, correctly label each of them with their scientific name.


**Name:** _____


**Name:** _____


**Name:** _____



## Fighting Against Climate Change: I'm Only a Kid

**Directions:** As you work your way through the Fighting Against Climate Change: I'm Only a Kid video, answer the corresponding prompt questions that you see below.

- **T/F** Completing science projects and competing in science fairs in middle and high school are ways that I can help fight for our planet.
- Cutting our school's _____ _____ is another way that we can make our community more eco-friendly.
- **T/F** All science experiments use chemicals or other technology in labs.
- Some people that I could talk to about using my skills to make a difference in the fight against climate change are:
    - 
    - 
    - 
- Changing _____ is an small step we can take to protect the planet.
- Greenschools.net is a great resource for learning how to _____ our school.
- **T/F** Talking to people about our planet isn't a good use of our time in the fight against climate change.
- _____, _____, and _____ are renewable resources that can be turned into energy. This was discovered by an Ohio student in her school's science fair.
- Here is one step I'm agreeing to take in the fight to protect and preserve our planet:

_____



## Glossary of Terms: Urban Gardening

Acidic Soil: Soil that ranks below a 7 on a PH scale of 1 to 14. Usually referred to as “sour soil” by gardeners.

Alkaline Soil: Soil that ranks above a 7 on a PH scale of 1 to 14. Usually referred to as “sweet soil” by gardeners.

Apartment Gardening: The usage of space in an apartment to grow your own food, typically on a windowsill, hanging basket, or shelf.

Balcony Gardening: A garden consisting of fruits and vegetables grown on balconies or roofs.

Bare-Rooted: Dormant plants sold without a pot, typically only available during the winter season. Bare-rooted plants should be soaked before potting and never left out to dry. The most commonly found bare-rooted plants are fruit trees, strawberries, roses, raspberries, and asparagus.

Beneficial Insect: Insects that provide beneficial services to your garden by pollinating or acting as a natural pesticide.

Biodegradable: The ability of organic matter or material made with organic matter to naturally break down through bacteria or fungi.

Bokashi Composting: A composting system where inoculated bran is used to ferment food waste into soil and nutrient-rich tea for plants.

Bolting: When a plant goes to seed, usually indicating the end of new leaf growth. Growing vegetables quickly and efficiently will help reduce the chances of the plant bolting before they produce a sufficient amount of vegetables.

Clay Soil: Soil is comprised of many grains in a powdered-like consistency that turns sticky when wet. Clay soil helps anchor plant roots in the soil, which is best for many plants that can’t get a firm grip with their roots alone.

Community Garden: The shared area where community members can come together to grow and harvest plants.



Compost: A mix of decayed organic matter used as a fertilizer for plants. Anything that grows naturally can be composted. Composting is great to reduce food waste while providing your plants with beneficial nutrients that help them grow.

Compost Bin: A bin designated for garden and organic waste to form compost.

Compost Tea: A nutrient-rich liquid formed from soaking compost in water and extracting the liquid.

Compost Tumbler: A container that can be spun to mix composting ingredients. In the right temperature, season, and right balance between carbon and nitrogen, waste can take up to 3 weeks to fully turn into compost in a tumbler. If the weather is cold or wet, however, it could take much longer.

Container Gardening: The usage of containers to grow plants instead of the ground. Container gardens are best for their mobility if you can't start a garden in the ground. Many different plants can be grown in a container garden like blueberries, sunflowers, and winterberries.

Crop Rotation: The action of growing a range of crops in a sequence on the same soil to prevent soil depletion.

Cultivar: Types of plants that have been bred, or artificially modified, for certain qualities. There are many types of cultivars including apples, cucumber, onion, pears, olives, and more.

Direct Seeding: The direct planting of pre-germinated seeds onto the soil surface. Root crops such as parsnips, carrots, and radishes should be directly sewn for better quality, however, most plants don't need to be.

Disease Resistance: The ability of a plant to mitigate the damage by a pathogen.

Espalier: A plant, usually a fruit tree or shrub, that's trained to grow on a support such as a trellis or a wall.

Fertilizer: A natural or artificial substance used to increase plant growth and productivity. The fertilizer you use is dependent on the type of crop you're growing and what nutrients it needs.

Flower: The part of a plant that possesses the reproductive structures necessary to pollinate.

Foliar Feed: A nutrient-containing material sprayed to a plant's leaves. This can help nutrients stick to the leaves and then be absorbed by the leaves.



Frugal Gardening: The concept of using innovative ways to spend less money when gardening. This can be done by using items that you already have, like containers, and DIY.

Garden: A small plot of land where fruits, vegetables, herbs, or flowers are grown.

Garden Bed: A type of gardening in which soil is enclosed between a confining structure.

Garden Soil Preparation: The preparation of the soil before sowing the seeds. Done by loosening or tilling the soil.

Gardener: Someone who cultivates and maintains a garden, either by employment or for leisure.

Gardening: The action of planting, growing and tending to a garden.

Grafting: A technique used to connect the tissue of two plants so they can grow together. This can be done by making cutting a hole in one plant and placing another into it. This can't be done with every plant.

Grass Clippings: The chopped grass left behind (or collected by grass catcher) by a mower.

Green Manure: Crops that are turned into soil to supply it with nutrients and enhance its quality. Different kinds of legumes, grasses, and wheat can be used.

Growing Medium: A substance that plant roots use to develop and collect water and minerals. Growing mediums have a few different requirements for best use including holding enough nutrients, providing air space for the roots, and being free of pests and weeds.

Growing Season: The time of the year that best suits plant growth based on rainfall and temperature. Before growing plants, it's important to know what season they grow in best, otherwise, your crops may not grow to their best ability.

Heirloom Plants: Plants grown in remote areas or by ethnic groups. These plants were more common in earlier times and are now only used by ethnic groups.

Heirloom Vegetables: An ancient cultivar that preexisted before modern farming.

Herb Gardening: A garden devoted entirely to the cultivation of herbs.

Homemade Organic Fertilizer: Fertilizer made from organic materials found near the home such as grass clippings, weeds, kitchen scraps, etc.



Hybrid Plant: The outcome of cross-pollinating two distinct plant types and nurturing the seed produced by the mix. Commonly known hybrid plants include coconut, mandarin, coffee, and much more.

Hydroponics: The method of growing plants without the use of soil in other mediums such as perlite, rock wool, expanded clay pebbles, or liquid with the required nutrients.

Indoor Gardening: The practice of cultivating food in your own house.

Integrated Pest Management (Ipm): A method for dealing with pest concerns while posing the least amount of risk to human health and the environment.

Intercropping: A technique of cultivating multiple crops in close vicinity. Used for increased crop yields and more easily controlling weeds.

Lawn Grass: Grass planted over land covered in soil for personal aesthetic and enjoyment.

Leaf Mould: Produced once the gradual activity of fungus decomposes leaves into soil conditioner. Is most often used as potting mix, mulch, seed compost, and soil conditioner.

Liquid Fertilizers: A liquid that contains the proper nutrients for plants to enhance growth. It also aids in preventing disease and insect infestations in plants.

Microgreens: Young vegetable greens produced from vegetables or herbs. They can be harvested within 1 to 2 weeks. Common vegetables include kale, broccoli, and red cabbage.

Mulch: Used to coat the soil’s surface to minimize frost during winter, maintain soil moisture, and control weeds.

Native Plant: A plant that has formed naturally in a certain location, environment, or habitat.

Nutrients: Minerals that give sustenance for development and survival. When a plant takes up water, it absorbs nutrients from the soil through its roots.

Open-Pollination: When natural occurrences such as wind, insects, people, or birds pollinate flowers. Open-pollination can lead to more variety among plant populations, allowing plants to gradually adapt to local growth circumstances and environment every year.

Organic Gardening: The action of growing plants without the use of pesticides and artificial fertilizers. Instead of using chemical fertilizer as conventional gardening does, organic gardening use manure and compost to nourish the soil.



Organic Material: Everything that was once living and then buried in or on the ground. Adding organic material to your garden can help retain water in the soil, allowing you to water less frequently.

Organic Matter: Substances derived from the remnants of living organisms.

Organic Soil: A nutrient-rich soil created by the breakdown of plant and animal components. The extra nutrients can aid in reducing pests and disease from affecting your plant, reducing the requirement for pesticides or chemicals.

Parent Plant: A plant that has pollinated and grew more plants with the same characteristics.

Perennial Plant: A plant with a lifespan of over two years. Perennial plants usually require low maintenance and are great if you're looking for long-lasting plants.

pH: A metric for determining how acidic or basic water is. The soil's pH is important in determining which fertilizers and nutrients the plant will absorb.

Plant: A living organism with roots, leaves, and a stem that grows in the ground.

Plant Growth: The development of a plant in volume and/or mass. Plants growth is best supported by nitrogen, phosphorous, and potassium with the right amount of water and sunlight.

Potting Soil: A mixture of ingredients used to grow plants in pots. Potting soil is different from a potting mix in that it has some dirt in it. It's beneficial to plants in that it provides them oxygen and extra nutrients.

Propagation: The procedure for developing new plants from the parent plant. It involves cutting a piece of a plant and potting it. The plant can be grown in either water or soil, but most plants grow best in soil.

Root Crops: Crops that grow underground from their roots. This includes carrots, beets, parsnips, sweet potato, ginger, yams, and much more.

Seaweed Extract: Used in fertilizers for extra nutrients for plant growth. Seaweed extract can be found as a liquid or even made at home by grinding dried seaweed and placing it around the plant.

Seed: Mature ovules used for sowing to develop another plant.

Seed Planting: When a plant reproduces by the germination of seeds.

Seedling: A new plant that has been grown from seed rather than a clipping. The seedling is the shoot with a few leaves that have grown after planting a seed.

Soil: Organic substance traced with minerals that act as a natural substrate for the development of plants.

Soil Amendment: Any substance used to enhance the physical characteristics of soil. Compost and manure are most commonly used as soil amendment and provide beneficial nutrients.

Soil Structure: The manner in how particular clay and sand particles are put together.

Soil Test: The examination of soil to assess certain properties like pH level and nutrient level. Soil tests are important for many reasons including increasing crop yields and reducing contamination from excess fertilizer.

Sprouts: The germination and development of a plant. Sprouts can be harvested within 3 to 5 days, don’t require any, and are grown in water.

Transplanting: To import and grow a plant in a different location. Transplanting can be beneficial for quite a few reasons including when you want to start a new garden, when you’re not growing the best tasting fruits anymore, and when your plants stop producing.

Urban Gardening: The practice of cultivating a variety of plants in an urban setting. They are most commonly grown in containers, so they can be moved and placed around your rooftop or balcony.

Vegetable: A food-producing plant or component of a plant.



## Name That Tree

**Directions:** Think of a tree that you know, and draw a picture of it below. Write down any special characteristics that it has, such as its leaves, bark, or fruits. When you're done, turn to your neighbor and show them the picture. Have them guess your tree by your drawing and verbal description. Then switch, and you guess their tree. Repeat the process for a total of three rounds, or six trees.

Tree #1:

Tree #2:

Tree #3:



## Tree Identification Field Guide

**Directions:** Write down the name of 4 trees that you found connected to the South. Then head to The Arbor Day Foundation's What Tree is That? (Tree Identification Field Guide). See if you can locate your 4 trees using the online field guide map.

**Tree #1:** _____
Is the tree often grown in the Southern region of the US? Y/N

**Tree #2:** _____
Is the tree often grown in the Southern region of the US? Y/N

**Tree #3:** _____
Is the tree often grown in the Southern region of the US? Y/N

**Tree #4:** _____
Is the tree often grown in the Southern region of the US? Y/N



## Urban Gardening Tips: Identifying Vegetation

**Directions:** As you watch the Urban Gardening Tips: Identifying Vegetation video, answer the corresponding prompt questions that you see below.

**Growing _____ is an easy way to overcome limited space issues in urban gardens.**

**_____ _____ is the act of growing multiple types of vegetation near one another that can grow well together.**

**The following are types of natural pests that may enter an urban garden setting:**

- 
- 
- 
- 
- 
- 

**T/F There aren't any rules or regulations in urban growing communities.**

**Mini _____ can successfully grow herbs and other small vegetation in urban settings.**

**In a small space, _____ _____ _____ allows the gardener to calculate out the exact number of plants they can plant and therefore how much food they'll reap.**



## Sunlight Matching Activity

**Directions:** To match them, draw a line between each of the various degrees of sun exposure and its corresponding definition.

| Degree of Sun Exposure | Definition |
| --- | --- |
| Full Sun | Plants need at least 6 hours of direct sun daily |
| Full Shade | Plants thrive with between 3 and 6 hours of direct sun per day |
| Part Shade | Plants require between 3 and 6 hours of sun per day, but need protection from intense mid-day sun |
| Part Sun | Plants require less than 3 hours of direct sun per day |



## Plant a Tree

**Directions:** Keep notes on your tree's growth and track its progress below.



## Optimal Seasons

**Directions:** Make a list of 4 types of trees, plants, food, herbs, or other vegetation that you might like to plant in an urban garden in your hometown. Then, head to the Planting Calendar. Search for your region and the 4 items you've decided to plant. Use the Planting Calendar to identify the best season for you to plant your urban garden.

**Vegetation #1:**
Recommended Planting Season:
Notes: _____

_____

**Vegetation #2:**
Recommended Planting Season:
Notes:_____

_____

**Vegetation #3:**
Recommended Planting Season:
Notes:_____

_____

**Vegetation #4:**
Recommended Planting Season:
Notes:_____

_____