

Sprouting Change: You, Food, & the Environment





THE UNIVERSITY *of* NORTH TEXAS
HEALTH SCIENCE CENTER *at* FORT WORTH

GIBSON D. LEWIS LIBRARY

Education, Research & Engagement

Lewis Library & Engagement



Since the 1980's Lewis Library has dedicated staff resources to **community engagement.**

In the 1990's the library entered into a formal contract with the NNLM to be a **resource library for the community.**



Lorraine Sheldon

Community Engagement Librarian



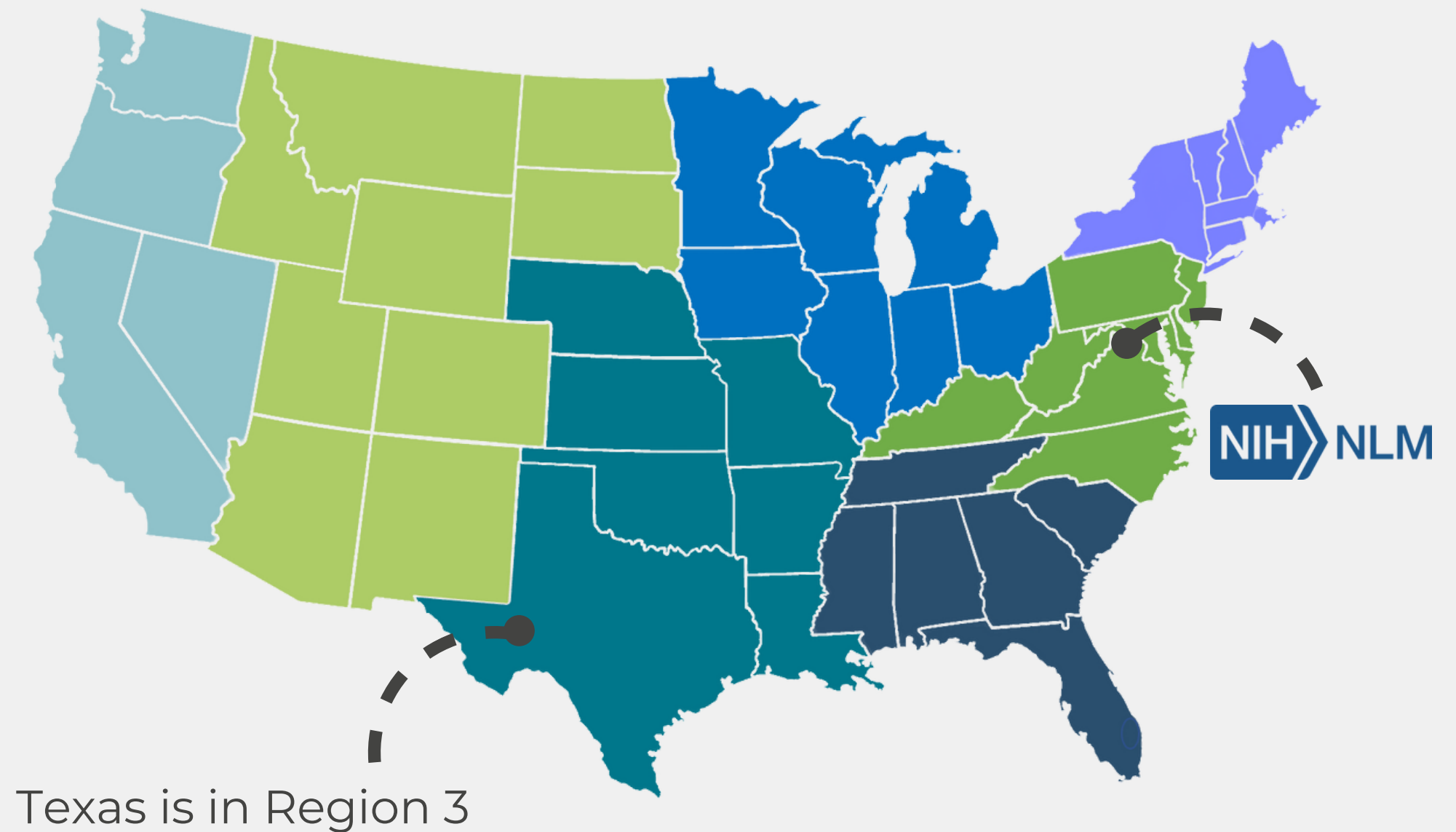
Madi Wright

Community Engagement Library Specialist

National Library of Medicine

The National Library of Medicine (NLM) is the **largest biomedical library** in the world. It makes available its vast collection of print and electronic resources on a wide range of medical topics.

It coordinates the Network of the National Library of Medicine (NNLM), which is arranged into 7 regions.



Lewis Engagement Mission



Mission

Improve public health through increased access to quality health information



Resources

Educate the community about free and reliable resources



Partners

Foster collaboration with local partners and community-organizations

Information Literacy

What is it?

“The ability to recognize when information is needed and have the ability to **locate**, **evaluate**, and **use** effectively the needed information.”

Why is it important?

- Numerous avenues for information, prompting a need for determining what information is valid.
- Ability to evaluate the information found and think critically about it.

Source: American Library Association

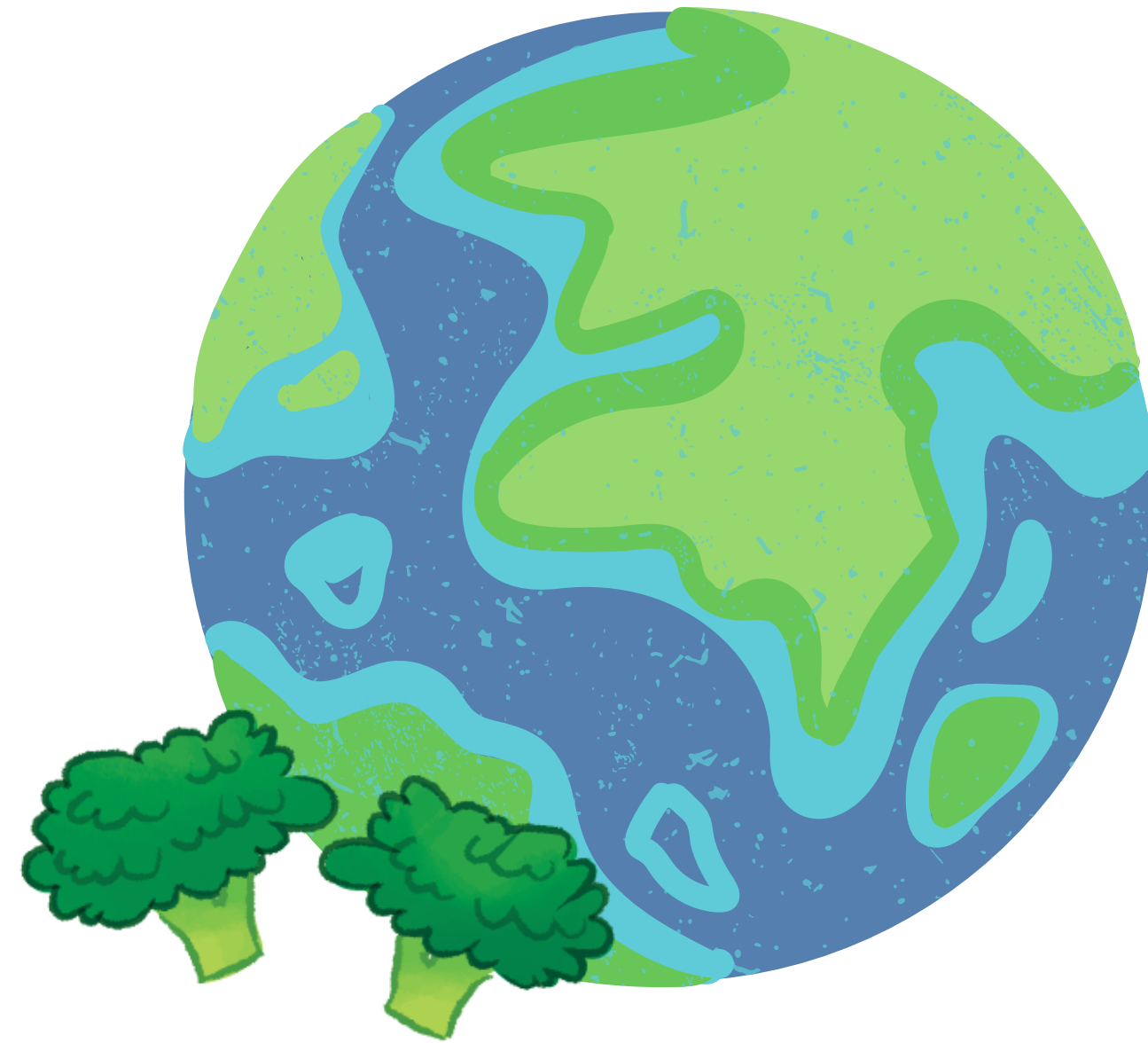
Nutrition Literacy

Food gives you energy and nutrients to help your body grow and be healthy. When you can find, understand, and use information about food to make healthy choices this is called **nutrition literacy**.



Sustainability

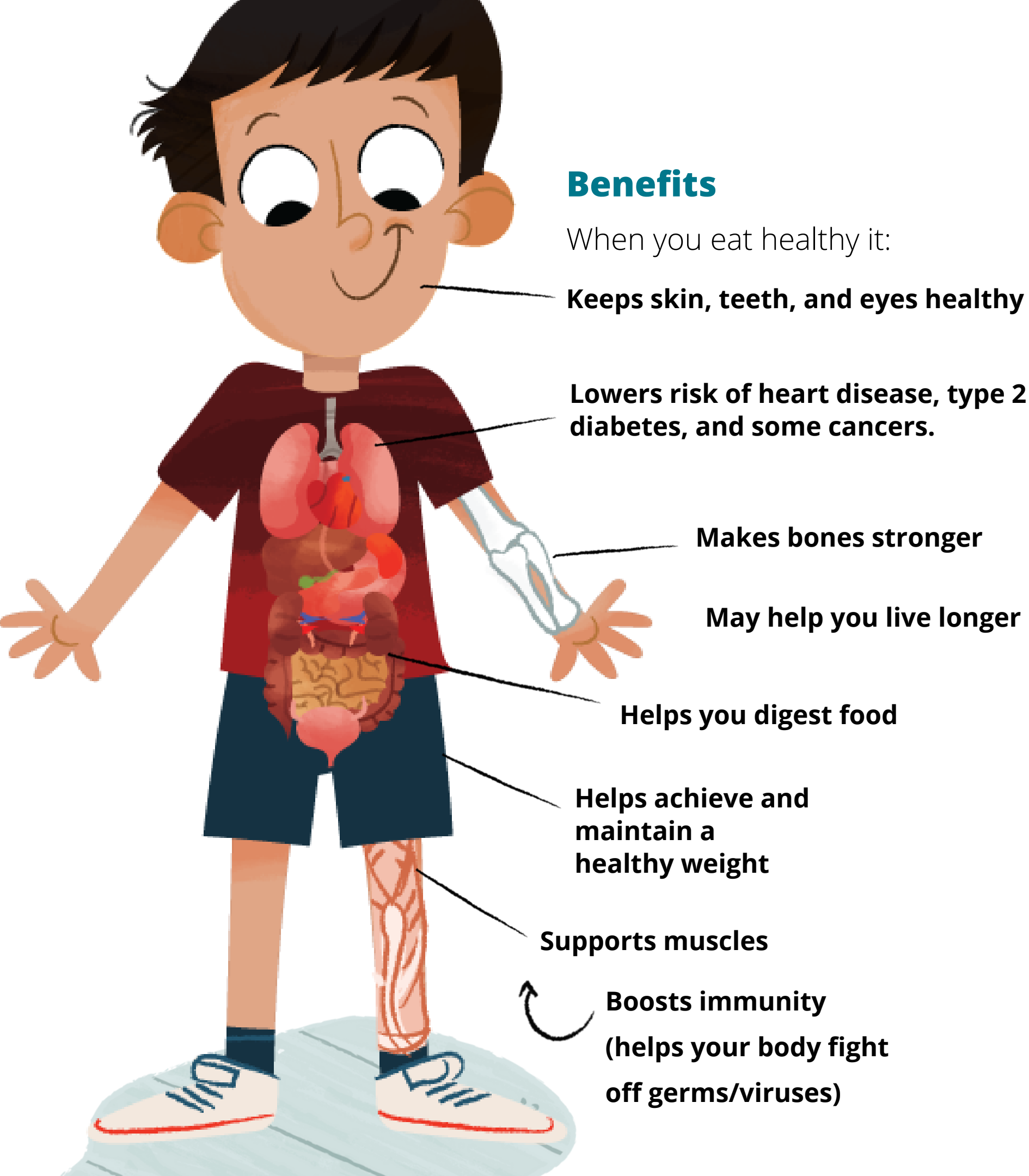
Sustainability means to make choices today so there are resources tomorrow. What you choose to eat and do affects you, your community, and the planet both now and in the future.





Nutrition Literacy

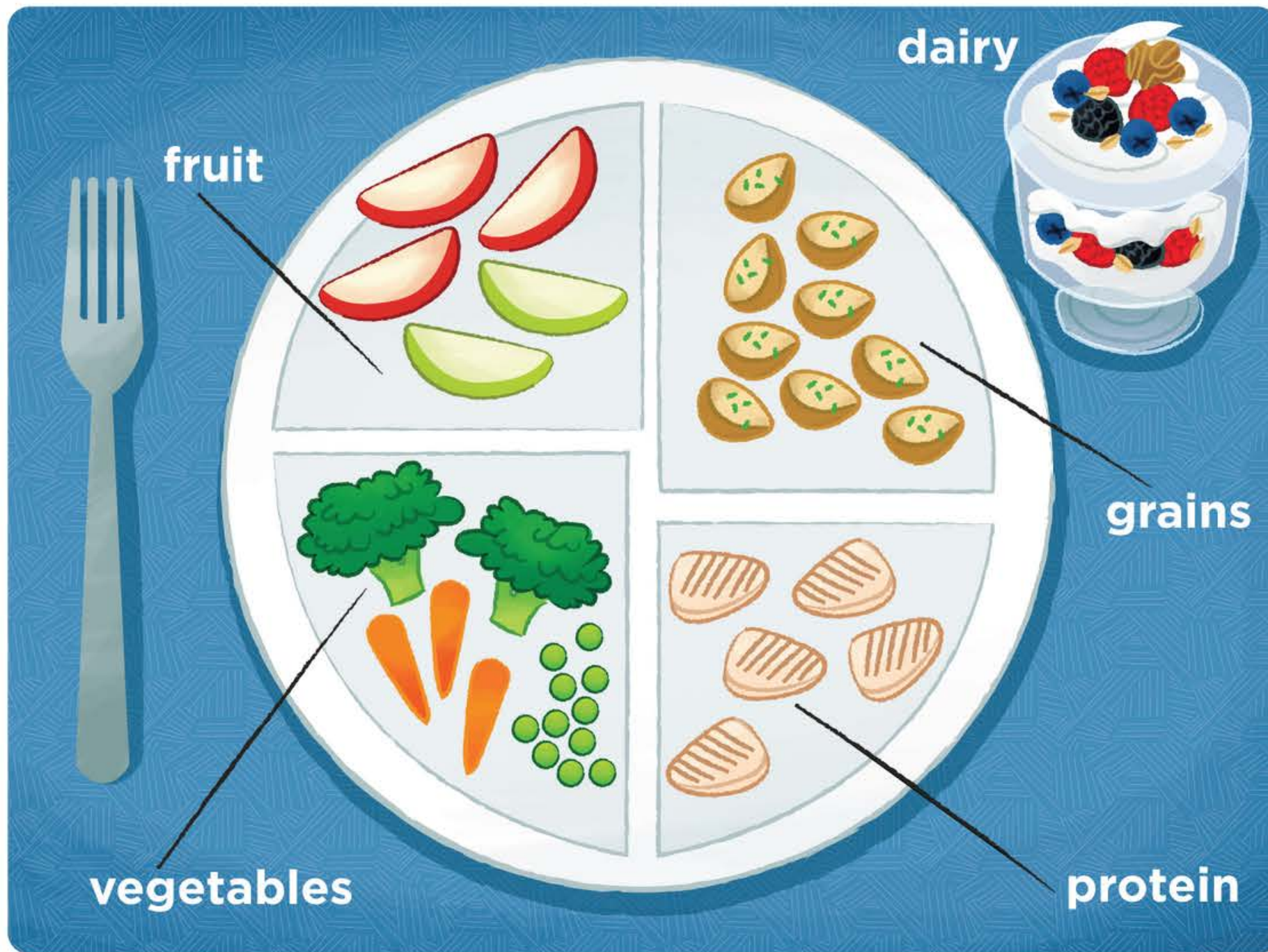
What comes to mind when you hear the
word nutrition?



Health Eating

Tips for good nutrition:

- eat a **variety** of foods - vegetables, fruits, and whole-grains
- eat **lean meats** (low fat)
- **limit** salt, sugar, alcohol, saturated fat, and trans fat
- drink lots of **water**



Food Groups

Balanced Meal

When you make your plate half ($1/2$) should be vegetables and fruits, a quarter ($1/4$) can be protein, and a quarter ($1/4$) can be whole-grains. Eating vegetables first can also help maintain balanced blood-sugar levels.

Portion Size

A food portion is the amount of food you actually eat. This is different than a serving size on a food label.

For example, the serving size may say 1 cup, but the portion you actually eat may be 2 cups. Each meal you may eat different portions of food.



Baseball

= 1 cup
or 8 oz



Tennis Ball

= 1/2 cup
or 4 oz



Golf Ball

= 1/4 cup
or 2 oz



Ping Pong Ball

= 2 tbsp
or 1 oz



**1 Large
Bell Pepper**



**4 Large
Strawberries**



**Small handful
of nuts**



**Cubes of
Cheese**

Nutrition Facts

Serving Size 100 g	
Amount Per Serving	
Calories 250	Calories from fat 10
% Daily Value*	
Total Fat 4%	4%
Saturated Fat 1.5%	4%
Trans Fat	
Cholesterol 50mg	28%
Sodium 150mg	15%
Total Carbohydrate 10g	3%
Dietary Fiber 5g	
Sugars 3g	
Protein 16%	
Vitamin A 1% ▪ Vitamin C 3%	
Calcium 2% ▪ Iron 2%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

How to Read the Label

Nutrition fact labels are found on packaged food and drinks and tell you about what is in the food.

Serving size - how much food the label is describing

Total Calories - how much energy you get from serving size

Nutrients to get less of: Saturated fat & Trans fat (type of fats that are connected to disease), sodium (salt), sugars.

Nutrients to get more of:

Fiber (helps balance sugar), vitamin D, calcium, iron, and potassium.

% Daily Value is the percent allowed for each nutrient each day based on a 2,000-calorie diet.

What are some food myths you've heard?

Food Myths: True or False?

Food is one part of a healthy lifestyle. Sometimes it can be hard to know what is true about food. Here are a few common food myths or false information about food.

False

Carbohydrates are bad

True

Your body needs carbohydrates to work

False

Frozen fruits and vegetables are less nutritious

True

There is the same nutritional value in frozen fruits and vegetables

Eating fat will make you fat

Your body needs fats to function, try to avoid trans and saturated fats. These fats can cause disease.

Vitamin C helps prevent a cold

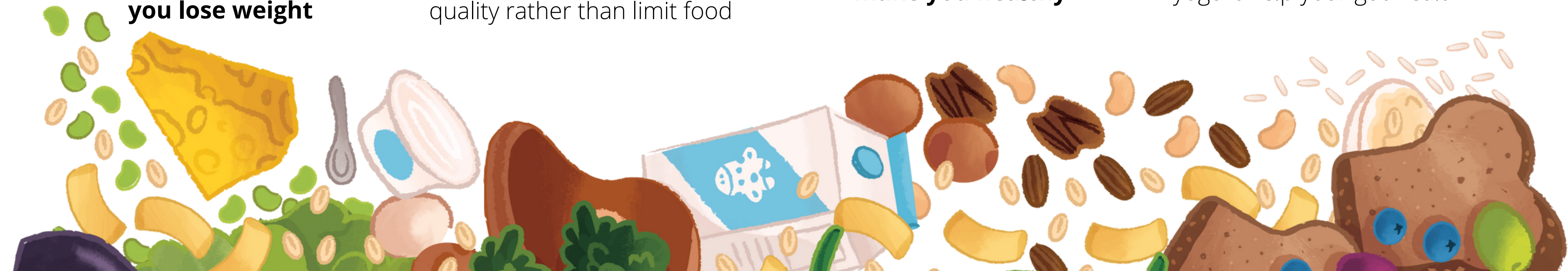
Vitamin C can not stop a cold, but it can help shorten it

Not eating will make you lose weight

It is better to improve food quality rather than limit food

Detoxing your gut will make you healthy

Eating bacteria rich foods like yogurt help your gut health



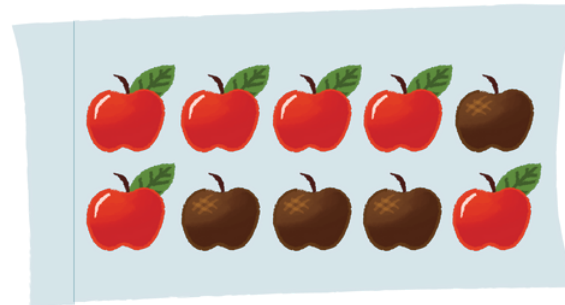


Sustainability & Food

What comes to mind when you
think of sustainability?

Sustainability & Food

Sustainability means to make choices today so there are resources tomorrow. What you choose to eat and do affects you, your community, and the planet both now and in the future.



Use food wisely
30-40% of food is never eaten. Consider food storage to extend food life. Compost food scraps or make soup broths.

About organic
Organic farming uses less pesticides and fertilizers. Which means less runoff into water and chemicals in the environment which is healthier for all.



Some foods have more pesticides on them than others. If possible choose organic or grow your own.

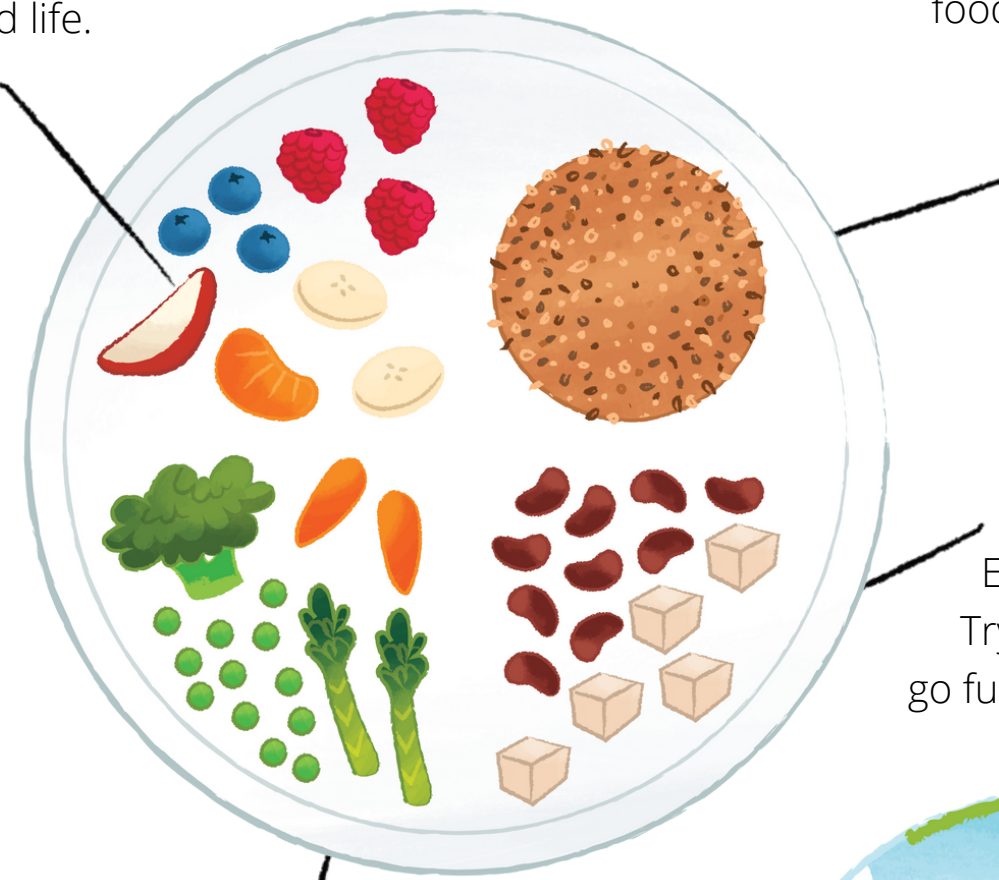


Reusable bags.

Buy local
Food travels far to get to your plate. Buying local uses less resources to get to you and supports Texas farmers and economy.



Look for the Go Texan logo to find products made in Texas.



Water use
Some foods use less water. This chart shows the number of gallons of water for 4oz of food.

463 gallons - Beef	
130 gallons - Chicken	
49 gallons - Beans	
49 gallons - Eggs	
36 gallons - Yogurt	
35 gallons - Avocado	
28 gallons - Wheat	
25 gallons - Apples	
9 gallons - Spinach	

Less meat & more diverse proteins
Eating mostly plants is good for you and the environment. Try cooking one meal vegetarian each week or make meat go further with soups, stir-fry, or casseroles.



Regenerative Agriculture
Farming process that helps soil health, save water, improve animals/plants life, and reduces harmful gases entering our air. Try to find regenerative meat to eat nutritious food that is also good for the planet.

Wasted Food

The United States wastes nearly 40% of all food available in the country. This equates to **108 billion pounds** of wasted food every year. That is about the same weight as **fifty-four million longhorns!** Holy cow!

Wasted food rotting in landfills causes harmful **heat trapping gases** which is bad for us and the earth.

Wasting food also wastes resources.

Transportation, packaging, energy harvesting the food, and water is also wasted. Every year, the amount of water wasted in food production is enough to supply **50 million homes** with water.

To help reduce food waste you can:

- Buy food in season
- Compost
- Freeze foods
- Store food properly
- Meal prep
- Use leftovers





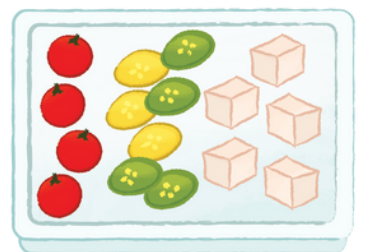
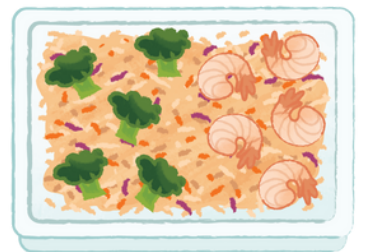
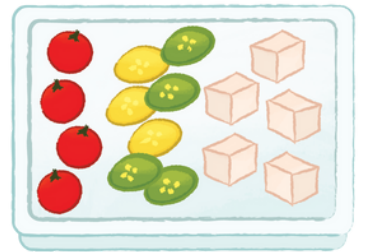
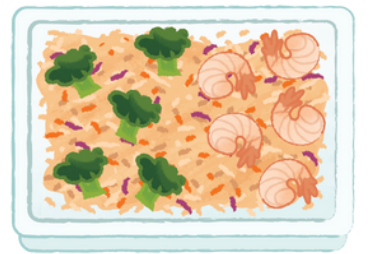
When food is wasted, the packaging is wasted too.
To help cut back on plastic waste:

- **Empty and Rinse** - Food and liquid contaminate recycling and cause it all to be thrown away. Empty bottles/cans and rinse food off plastics. Check signage before recycling! Throwing everything into recycling is worse than throwing it in the trash.
- **Focus on reusables** - Use reusable bottles, containers, cutlery when possible
- **Check City Services & Events** - Check your city's recycling services and what they accept. Some cities have special event recycling for electronics and hazardous waste.

Preparing Meals Ahead

Meal prepping is the process of planning and preparing meals beforehand and help save money while cutting back on food waste. Some ways to meal prep include:

- **Make-Ahead-Meals:** A meal that is made ahead of time and is stored to be reheated later
- **Batch Cooking:** Preparing a large batch of a single recipe, portioning the food, and then freezing to be reheated later. These can be eaten for months at a time.
- **Individual Portioning:** Making fresh meals and individually portioning them to be refrigerated. This are meant to be eaten over the next few days.
- **Ready to Cook:** Cutting and preparing ingredients ahead of time to reduce cooking time



Extending the Life of Food

Where can I store food?

Refrigerator Produce that goes into the refrigerator needs to be kept in colder temperatures and damper conditions.

Counter Produce that goes on the counter needs to be stored at room temperature

Pantry Produce that goes in the pantry needs to be kept in a dry and dark place

Freezer Produce that goes in the freezer can last up to 6 months for fruits and up to 12 months for vegetables.

What do dates on food products mean?

Sell By Date When a grocery store should sell the food by to ensure a at home shelf life. These foods are still safe to eat.

Best By Date Food will be at its best flavor/quality before this date. This does not mean that the food is no longer safe to eat after this date.

Use By The food may lose quality/flavor after this date. The food may still be safe to eat. The exception for this rule is baby formula which should not be consumed after a best by date



Composting 101

- Choose a spot near water access, away from your house.
- Make a wooden frame with pallets or chicken wire. You can also make an unstructured pile on the ground!
- Layer brown and green materials. Always add a brown layer to cover the top of your pile to reduce smell.
- If it is dry, water your pile once a week.
- Turn your pile every two weeks.
- Compost is ready when everything is broken down and smells earthy!

3:1 ratio of brown to green material



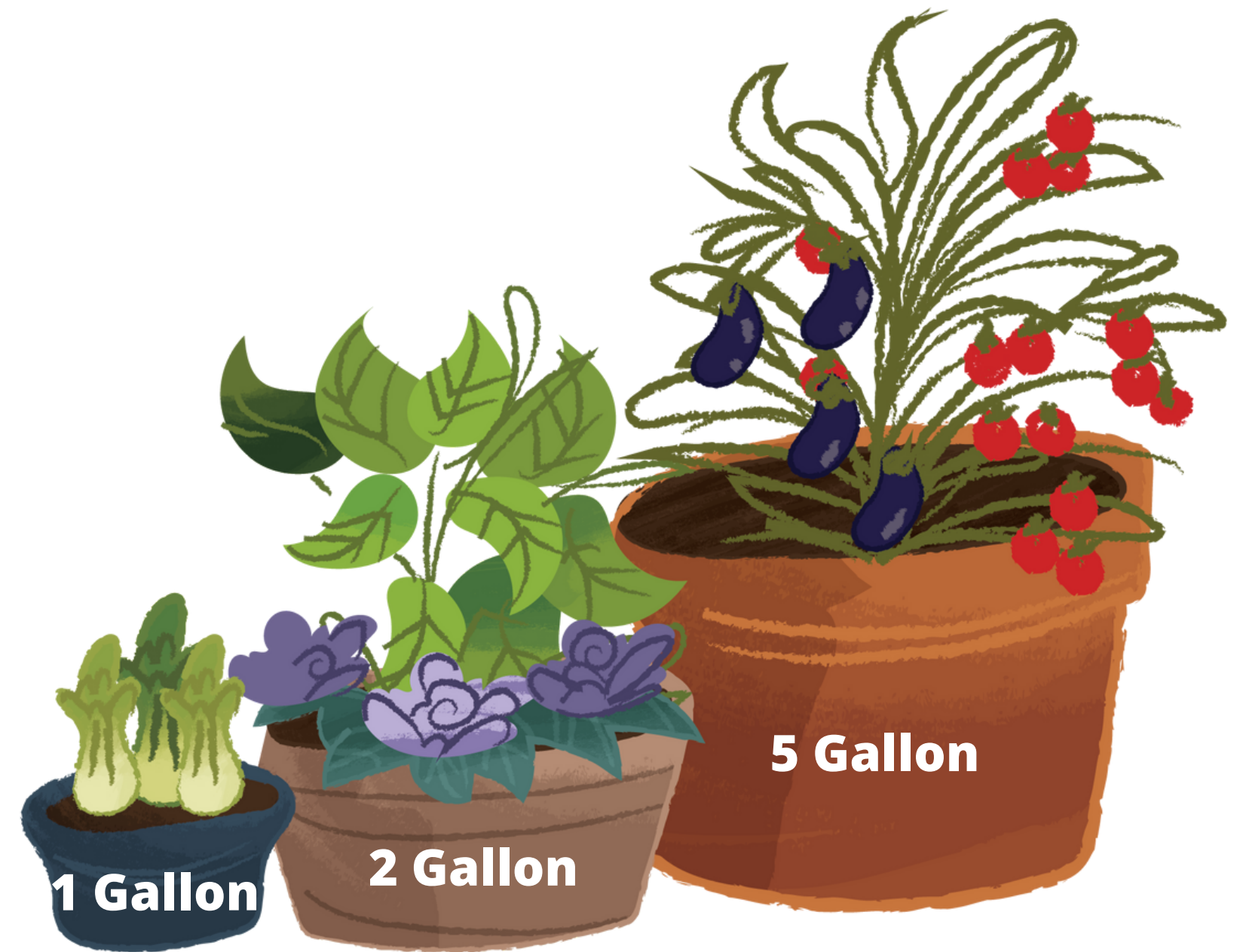


Gardening & Growing Kit

Container Gardening

Items needed: potting soil, compost, pot with drainage hole, seeds or vegetable plants

- Fill to the top with half compost/half potting soil mixture
- Plant and space seeds using package instructions
- Place pot in sunny area for at least 6 hours of sunlight
- Water when the soil is dry to touch. If the soil is moist, skip watering.
- Fertilize plants as needed. Check for bugs/damage and trim any damaged parts of the plant.



Choose from:

- Green Onion
- Parsley
- Radish
- Spinach, Lettuce, Arugula

- Broccoli
- Green Beans
- Turnip & Mustard Greens
- Kale & Collard Greens

- Cucumber
- Eggplant
- Pepper
- Squash
- Tomato
- Okra

Planting by Season

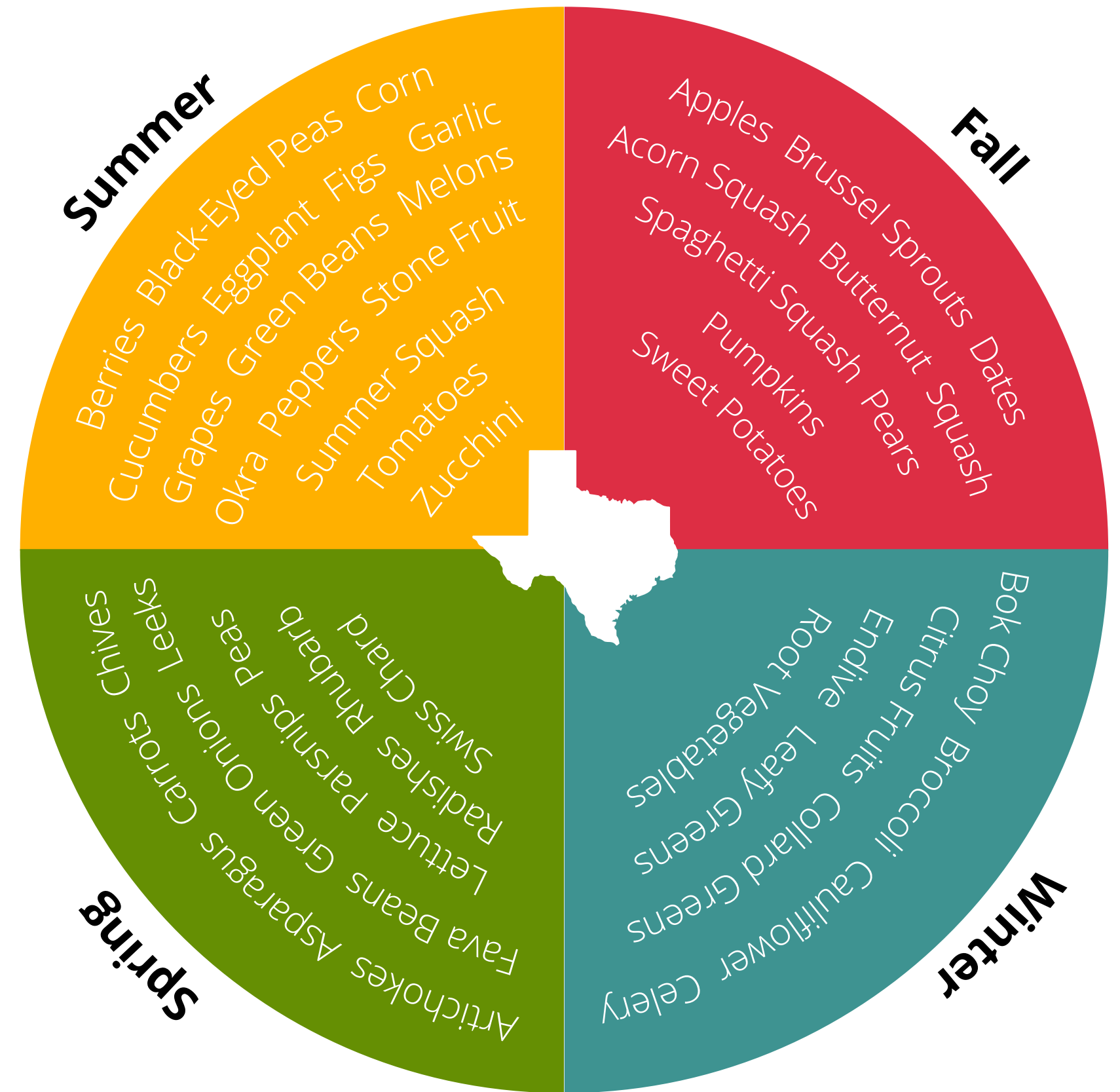
Spring Planting: Plant "cool season" veggies in early spring. Plant "warm season" veggies after the last frost date to harvest through Spring and Summer.

Fall Planting: Plant another round of warm season crops late-summer to harvest before the first frost date. Plant "cool season" crops late-summer and in the fall.

Average Frost Dates:

First Freeze - November 21

Last Freeze - March 12



Benefits of Sprouts

Sprouts can be **grown quickly**. Most seeds, you can get a yield in 4-5 days.

They're **convenient**. You don't need a big garden or even anything outside. They can be grown right in your kitchen no matter how big or small it is, and all you need is what you see here.

Sprouting is an **inexpensive** way to grow some of your own fresh vegetables.

Sprouts are a **nutrition powerhouse**. For example, broccoli sprouts contain a natural compound called sulforaphane which can protect against cancer.



Sprouting Growing Kit

1. Place the seeds (~2 tbsp.) in the jar and fill half full with water, and place the lid on the jar. Let them sit for 8-10 hours.
2. Drain the water. Fill again with water and drain one more time.
3. Turn the jar over and place on a plate to collect any excess water.
4. Rinse and drain 2-3 times daily for 4-6 days.
5. When the roots are about 1 inch long, place the jar in a sunny spot to get some sunlight for a few hours. This step gives more color and nutrients to the sprouts.
6. Transfer the sprouts to a towel on the counter to dry before storage. Then place them in an airtight container with a paper towel, and store them in the refrigerator.
7. Enjoy the sprouts within 4-5 days!



As the sprouts start to grow, you'll see the root hairs. Don't mistake this for mold!

Sprouting Growing Kit -DIY



Rubber band/lid ring

Cheese cloth

Seeds

Glass jar



Bowl

Use the bowl to let the jar rest and an angle and drain. It is important that there is no excess water.



Sprout Salsa

Turn a Tex-Mex classic into a nutritious snack or an amazing side dish at any party! Adding sprouts to your salsa not only makes it delicious but adds health benefits too.

Recipe

- 1 cup sprouts
- 3 cups chopped tomato
- Juice of 1 lime
- ¼ cup minced fresh cilantro leaves
- ¼ cup finely minced red onion
- ½ chopped jalapeño
- Salt to taste

Instructions

- Roughly chop the broccoli sprouts and combine in a bowl with all of the other chopped ingredients.
- Mix well and season to taste with salt.
- To make a balanced meal, top with fish or chicken or beans and rice to make a standout vegan dish.
- Want it as a side? Simply serve with chips!

Sprout Toast Your Way

Toast is one of our favorite quick meals when we're in a pinch. There are many things that you can add to make it delicious and healthy!

Recipe

- **Start with your base.** Go for a whole grain or sprouted wheat bread for extra nutrition
- **Pick a spread.** We like avocado, hummus, pesto, pinto beans, soft cheeses like cream cheese, mozzarella, or ricotta!
- **Add extra protein** such as an egg, smoked salmon, cheese, or your favorite nuts or seeds
- **Throw on some fruit/veggies!** We love tomatoes, cucumbers, greens, bell peppers, and chives
Don't forget to add your microgreens! They are a great addition to any combination and are packed with





Sample

Try food samples with sprouts.



Resources

Resources

Cowboy Compost

Zero-waste company based in Fort Worth, TX. They offer zero-waste events, commercial, and residential composting services.

GROW North Texas

Connects North Texans to food, farms, and community to create a sustainable, secure regional food system.

Environmental Working Group (EWG)

EWG is a nonprofit, nonpartisan organization dedicated to empowering users with breakthrough research to make informed choices and live a healthy life in a healthy environment.

Tarrant Area Food Bank

Serves 13 counties in North Texas including: Bosque, Cooke, Denton, Erath, Hamilton, Hill, Hood, Johnson, Palo Pinto, Parker, Somervell, Tarrant, and Wise.

Texas A&M AgriLife Extension

AgriLife Extension provides training, publications, apps and programs to bring Texans the latest research in agriculture, natural resources and life sciences.



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Content References

Information for these materials was referenced from: MedlinePlus.gov, the Centers of Disease Control and Prevention, U.S. Department of Agriculture, U.S. Food and Drug Administration, Harvard SPH: The Nutrition Source, Seattle Public Utilities, Feeding America