
Educator Guide

Eat More Plants

Do you know where all your food comes from?

Did you know? Applesauce was the first food eaten in space, by astronaut John Glenn in 1962.

Did you know? Broccoli contains more protein per calorie than steak.

Did you know? Honey is bee vomit. Bees eat pollen and nectar and then regurgitate it back up to make the sweet treat we know and love.

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

Did you know? Marshmallows were originally made from a plant- the marsh-mallow plant!

The food that we consume comes from animals and plants, but do you really understand where your food comes from and how it impacts the planet and your health.

Younger learners:

- <https://www.youtube.com/watch?v=7FDVRQ98O7c>
- <https://www.youtube.com/watch?v=P93jHiuA-VI>

Ongoing research is suggesting that plant-focused eating patterns are the most environmentally friendly, whilst also have some health benefits.

Plant based eating focuses on eating food primarily from plants. It does not mean that you never have to eat meat or dairy, but that the largest proportion of food in your diet is sourced from plants.

Many studies on plant-based eating have shown that there are numerous health benefits including (but not limited to) reduced risk of heart disease, diabetes, stroke, high cholesterol, and certain cancers (such as colon, breast, and prostate cancer). They can also lower the risk of developing high blood pressure.

Sounding good so far? Well there is even more...

Plant based diets can provide the body with all the necessary, proteins, fats, carbohydrates, vitamins, minerals, and fibre necessary for health. The only thing lacking in a completely plant-based diet, is Vitamin B12. This vitamin can only be obtained from animal -based food or from supplements.

A bonus is that plant-based meals are often cheaper than meat-based meals.

You can follow many types of plant-based diets, which can be chosen to suit your lifestyle and needs:

Flexitarian- this diet includes eggs, dairy and occasional meat and poultry

Pescatarian- includes eggs, dairy, fish, and sea food but NO meat or poultry

Vegetarian- includes egg and dairy food but NO fish, seafood, poultry, or meat

Vegan- includes no products from animals

You might think it is hard to convert you diet, but don't worry- start small and work your way forward, soon you will find you have transitioned to a plant focused diet.

- Eat lots of colourful vegetables
- Eat smaller portions of meat
- Have a meatless day each week
- Eat fruit
- Include nuts and seeds in your diet
- "Beans, beans good for the heart...". Legumes are an excellent source of fibre and protein, not to mention they are delicious.
- Healthy plant fats can be found in lots of fruits, nuts and seeds like avocados and walnuts
- Get your grains (whole)- they are an excellent source of fibre and keep your blood sugar stable. They also contain essential minerals like magnesium and selenium.
- Switch out your dairy products for plant based "milks" like oat, soy, or rice milk.

Well; that is the health benefits out of the way... what about the **environmental impacts**?

Did you know that eating a plant focused diet can help reduce the impacts of climate change?

Food production is a huge contributor to greenhouse gas emission. A large portion of these emissions come from the raising of animals. So, choose beans instead of beef.

A plant-based diet is also a way to save water. Agriculture uses a tonne (literally) of water. The biggest water guzzlers- meat and dairy products.

Plant based eating can also save land. It takes less space to grow vegetables than to raise meat, so if we all reduced our meat consumption, we could have more land for conservation.

A large proportion of our global population is food stressed, BUT crazily most of the soy, maize, barley, and other grains is used to feed livestock. Isn't that crazy?

Changing to a plant-based diet, could in fact significantly reduce the world's carbon production.

So why don't you and your class challenge each other to up the proportion of plant-based foods in your diets. You might find that you enjoy the new diet, and you will be saving the planet (and your health) at the same time.

- <https://www.medicalnewstoday.com/articles/326176#foods-to-eat>
- <https://www.pcrm.org/good-nutrition/plant-based-diets>
- <https://www.pcrm.org/news/blog/5-ways-vegan-diet-helps-planet>
- <https://news.stanford.edu/report/2021/05/06/embracing-plant-based-diet/>
- <https://www.sustain.ucla.edu/food-systems/the-case-for-plant-based/>

Lesson Planning

Start your lesson by discussing the learners' diets, try and encourage them to think about why they eat what they eat. Maybe get them to describe their favourite foods and why they have meaning? It is important to recognise that there is an extra dimension to food- cultural and emotional.

For older learners some interesting videos to watch are:

The surprising science of how we taste:

https://www.youtube.com/watch?v=Wa_WfcuE1a0

Why you eat what you eat by Rachel Herz?

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

Why do people taste differently? https://www.youtube.com/watch?v=bQ_uyux8i_M

Through the class discussion, learners should be able to answer the following questions, related specifically to their classroom:

1. What forms a major part of people's diets
2. What was the most popular food in the classroom?
3. Would you describe your classes' diets as unhealthy or healthy?
4. Does culture influence food?
5. What landforms exist in the major biomes?
6. How open are learners to trying new foods?

Draw the learners' attention to the amount of meat in their diet.

A good way of exploring meat consumption is through a survey. Results can be expressed graphically e.g. pie charts or bar graphs.

Talk with your class about how meat consumption is tied into climate change.

This is how meat is killing the Amazon:

<https://www.youtube.com/watch?v=daeB4XMvZSM>

Why is eating meat bad for the environment?

https://www.youtube.com/watch?v=GkPrJWtr-_M

Lessons and Activities

| I can eat a whole plant! | |
|---------------------------------|--------------------------------------------------------------------------------------------|
| Grade | 1-3 |
| Subject | Natural Science, Technology, Life Skills, Art |
| Content | This exercise is to show learners the variety of foods we get from plants. |
| Duration | 30-45 minutes |
| Resources | Worksheets (available to download and print), vegetable examples or pictures of vegetables |

| Plant parts we eat | |
|---------------------------|-----------------------------------------------|
| Grade | 4-5 |
| Subject | Natural Science, Technology, Life Skills, Art |

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|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Content | This exercise is to show learners the variety of foods we get from plants. Learners create a poster of all the different plant parts that they eat. |
| Duration | 45 minutes |
| Resources | Worksheets (available to download and print), Poster card, pens, magazine pictures, printed images of veggies, actual veggies if using |

| Meaty Maths | |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Grade | 6-7 |
| Subject | Mathematics |
| Content | This is a fun activity where learners survey their classmates to see how much meat they consume and present their findings in graphs. |
| Duration | 45 minutes- 1 hour |
| Resources | Worksheets (available to download and print) |

| Make it Plant-based Recipe Redo | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grade | 8-11 |
| Subject | Life Orientation |
| Content | In this activity, learners redo classic recipes switching out the meat for plant based alternatives. A good chance to let learners be creative while also getting them to think about the environmental cost of eating habits. |
| Duration | 1 hour |
| Resources | Worksheets (available to download and print) |