

# Rainbow Nutrition



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## FILM

- ▶ **2' Life Changing Minutes - Really the Better and the Best**
- ▶ **Knietsche and Health**
- ▶ **The Origins of Spinach**
- ▶ **Dandelion: The Ecological Footprint**
- ▶ **Sci-PY Reporter - Be Happy, Stay Healthy!**
- ▶ **Youth & Corona**

## KEY OBJECTIVES

- 1) **Understand the nutritive value of colourful foods**
- 2) **Understand the importance of having food in different colours**
- 3) **Understand the relation between a healthy diet and immunity**
- 4) **Learn to make your own healthy and tasty food**
- 5) **Bond with your family over food and good health**

## INTRODUCTION

Stay healthy by eating all the colours of a nutrition rainbow! The pigments that give fruits and vegetables their bright colours represent a variety of protective compounds. By eating all the colours of the nutrition rainbow, you'll harness the power of these immune-boosting foods.

Healthy food can also be tasty. Instead of relying on fast food or processed food, we can easily make healthy food at home with fresh ingredients. Learning to cook healthy food and incorporating this as part of an active lifestyle is a valuable skill for children and adults alike.

### TOPICS

Biology health wellbeing

culinary arts

### KEYWORDS

Rainbow colours nutrition fruits

vegetables immunity health diet

recipe low calorie healthy lifestyle

### LEVEL

Early learner Primary School

Secondary School

### RESOURCE TYPE

Demonstration

### INTENDED AUDIENCE SIZE

Any small group

### MODE OF DELIVERY

Live online

### TIME FOR ACTIVITY

40 min.

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## GUIDING QUESTIONS

- Where do we get the energy to do all our daily activities?
- Is all food the same? Do some of them give us more nutrition than others? What foods are the best for our health?
- Is there a connection between the colour of your fruit/vegetable and its nutritional value?

## Starter Activity

- Materials - Paper, Pencil, Pack of Colours
- Ask the children to draw a rainbow and colour it.
- Now ask them to write the names of fruits/vegetables/food items for each colour of the rainbow
- How colourful does that look? How do you think food that looks like a rainbow would taste like?

## MATERIALS/PREPARATION/

## PROCEDURE

### PART 1 - LET'S COOK A RAINBOW!

#### Ingredients for Rainbow Pizza

- Flatbread/Naan Bread/Pizza Base - 1
- Pizza sauce - homemade or store bought - 4 tbsp or enough to spread on your flatbread
- Shredded Cheese - ¼ cup or enough to layer on your sauce
- Colourful Veggies - around 2 cups

- 1 tsp olive oil
- 1 tsp Italian seasoning

## Instructions

- 1 Preheat Oven to around 400 degrees Fahrenheit (~200 degrees Celsius)
- 2 Lay out your flat bread on a tray and spread the pizza sauce using a spoon. Sprinkle a thin layer of cheese onto the pizza sauce.
- 3 Layer the vegetables in a rainbow pattern on top of the cheese.
- 4 Spray/Drizzle some olive oil and sprinkle some Italian seasoning on top of the vegetables
- 5 Bake for around 20 minutes or till the veggies are cooked and the crust is slightly golden
- 6 Slice and Serve Warm (Picture 1)



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## Ingredients for Mini Rainbow Fruit Taco

### For Taco shells - (see notes to make it)

- Tortilla/Chapati - 3
- 1 tablespoon granulated sugar
- ½ teaspoon ground cinnamon
- Non-stick cooking spray



### For Fruit Filling

- Light cream cheese (softened)
- 1 tablespoon honey
- 1 tablespoon granulated sugar
- ½ teaspoon ground cinnamon
- ½ cup chopped strawberries
- ½ cup chopped, peeled orange slices (2-3)
- ½ cup chopped pineapple
- ½ cup peeled and chopped kiwi (2-3)

## Instructions

- 1) Preheat the oven to 350 degrees Fahrenheit.
- 2) To prepare the flour tortillas you can use a biscuit cutter or the sharp edge of a clean opened aluminium can to cut your regular-sized tortilla/ chapatti down to size.
- 3) Mix together the cinnamon and sugar.
- 4) Lay the cut tortillas out flat and very lightly spray them with the non-stick cooking spray. Sprinkle them evenly with the cinnamon sugar.
- 5) Gently fold each tortilla in half hang them upside down on the rungs of your oven rack (a slight fold will yield a wider taco shell that is easier to fill). Bake for 5-7 minutes and then remove and gently set aside.
- 6) In a large bowl, beat the cream cheese, honey, sugar, and cinnamon until fluffy, about 3 minutes.
- 7) Spoon 1-2 teaspoons of the filling into each shell.
- 8) Top with the sliced fruit.(Picture 2)

### Please Note:

Seasonal fruits in varied colours as available in your region can be used. Whipped cream can be used instead of the cream cheese.

In case you don't have access to taco shells, you can substitute it with bread, crackers, rice-cakes or any other locally available healthy alternative.

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## PART 2 – CALCULATE THE NUTRITIVE VALUE OF YOUR RAINBOW

Calculate nutritive value of the food that you cooked – here is a link to nutrition calculator that you can use

## PART 3: FAMILY COOKING CHALLENGE

Local SFF centres can use social media to ask families to share pictures of Rainbow coloured healthy recipes that they have cooked at home, which can be put up on social media pages to encourage healthy eating in the community. This will promote the message of eating local fruits and vegetables in all colours, and the recipe ideas will encourage more people to make this happen.

### FOSTERING DISCUSSIONS

1) How can we easily incorporate a rainbow diet into our lifestyle?

Reaching a total of 4 1/2 cups of colourful fruits and vegetable a day is the goal for a powerful plate. Here are some ways to make it happen:

- **Servings are not that big.** 1/2 cup of chopped raw vegetables or fruit makes one serving. Leafy greens take up more space, so 1 cup chopped counts as a serving. 1/2 cup of dried fruit equals one serving.
- **Think in twos.** Try to eat two servings in the morning, two in the afternoon, and two at night.
- **Snacks count, too.** Feeling hungry between meals? Munch on a piece of fruit or grab some sliced raw vegetables to go.

- **When shopping, look at your cart.** If you find most of your choices are the same one or two colours, swap out a few to increase the colours – and phytonutrients – in your cart.

- **Dine out colourfully.** Start out with a cup of vegetable soup. Choose an arugula or spinach salad and see if they can add extra vegetables. Top off your meal with fresh fruit for dessert and a soothing cup of green tea.

- **Look local.** Farmers markets, co-ops, buying clubs, and community supported farms are usually great sources of fresh produce. Ask a farmer for fresh ideas on how to prepare fruits and vegetables that are new to you.

- **Frozen produce is okay too!** It is best to eat in season, but since seasonal produce may be limited, frozen fruits and vegetables are next best.

Remember, colour in fruits and veggies is king, and the greater variety the better.

2) Why do we need to reach for the rainbow and eat food of different colours?

Colourful fruits and vegetables can paint a beautiful picture of health because they contain phytonutrients, compounds that give plants their rich colours as well as their distinctive tastes and aromas. Phytonutrients also strengthen a plant's immune system. They protect the plant from threats in their natural environment such as disease and excessive sun. When humans eat plant foods, phytonutrients protect us from chronic diseases. Phytonutrients have potent anti-cancer and anti-heart disease effects.

Try to include as many plant-based colours in your meals and snacks as possible. Each colour provides various health benefits and no one colour is superior to another, which is why a balance of all colours is most important. Getting the most phytonutrients

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also means eating the colourful skins, the richest sources of the phytonutrients, along with the paler flesh. Try to avoid peeling foods like apples, peaches and eggplant, lest you lose their most concentrated source of beneficial chemicals.

## AUTHORS AND SOURCES

Designed and submitted by Yoshida Menon and Preveena Nandakumar, Science Educators, India

## SAFETY INSTRUCTIONS

**Adult supervision/help will be required for cutting the vegetables/fruits and cooking**

## POSSIBLE EXTENSIONS

Older students can learn about how phytochemicals and antioxidants in brightly coloured fruits and vegetables boost our health:

**Red:** Lycopene reduces the risk for breast and prostate cancers and boosts heart, brain, eye, and bone health.

**Orange:** Beta-carotene fights cancer, reduces inflammation, supports the immune system, and boosts vision.

**Yellow:** Vitamin C and flavonoids boost the immune system, reduce inflammation, inhibit tumour cell growth, and detoxify harmful substances.

**Dark Green:** Calcium strengthens the bones and muscles and boosts heart health.

**Light Green:** Indoles and lutein eliminate excess estrogen and carcinogens and support eye health.

**Blue:** Anthocyanins destroy free radicals, reduce inflammation, and boost brain health.

**Purple:** Resveratrol boosts heart and brain health and may decrease estrogen production.

**Brown:** Fiber boosts digestion and weight loss and helps remove waste, like excess hormones and carcinogens.