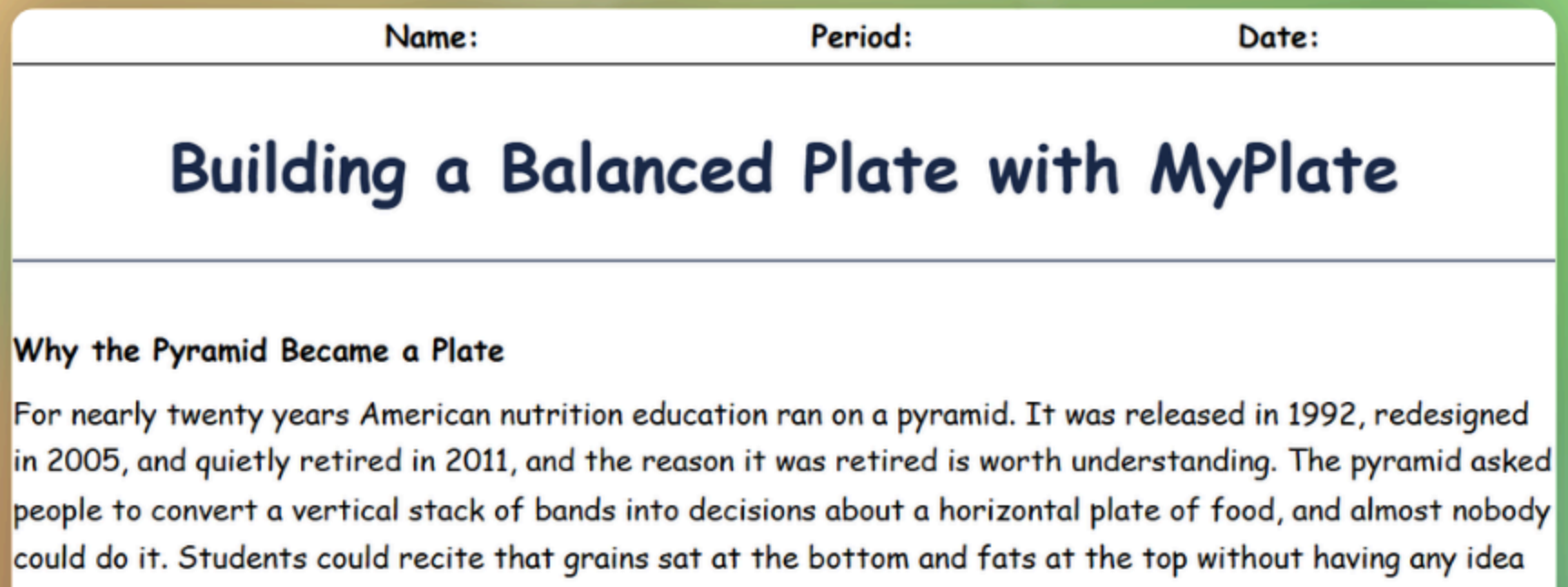
NO PREP

Building a Balanced Plate with MyPlate

Includes: Student reading, case study, differentiated questions, teacher key



Name: Period: Date:

Building a Balanced Plate with MyPlate

Why the Pyramid Became a Plate

For nearly twenty years American nutrition education ran on a pyramid. It was released in 1992, redesigned in 2005, and quietly retired in 2011, and the reason it was retired is worth understanding. The pyramid asked people to convert a vertical stack of bands into decisions about a horizontal plate of food, and almost nobody could do it. Students could recite that grains sat at the bottom and fats at the top without having any idea

Name: Period: Date:

Building a Balanced Plate with MyPlate

Why the Pyramid Became a Plate

For nearly twenty years American nutrition education ran on a pyramid. It was released in 1992, redesigned in 2005, and quietly retired in 2011, and the reason it was retired is worth understanding. The pyramid asked people to convert a vertical stack of bands into decisions about a horizontal plate of food, and almost nobody could do it. Students could recite that grains sat at the bottom and fats at the top without having any idea what that meant for the tray in front of them. The replacement, MyPlate, was released by the United States Department of Agriculture in 2011 and solved that problem by simply drawing the plate. MyPlate was the federal government's main food guidance graphic from 2011 until January 2026, when the 2025-2030 Dietary Guidelines for Americans replaced it with an inverted pyramid graphic. This reading covers the MyPlate model and the proportion lesson behind it. MyPlate is a place setting divided into four sections, fruits, vegetables, grains, and protein foods, with a circle beside it for dairy. That is the entire model. It contains no numbers, no serving counts, and no calorie targets, which critics initially treated as a weakness and which turned out to be its main strength. A person standing at a buffet line or a cafeteria window can compare what is on their tray to a picture in about two seconds. MyPlate is a proportion tool. It answers the question of how much of the plate each kind of food should occupy, not how many calories a person should eat. Those are genuinely different questions, and the older models kept tangling them together. The recommendation underneath the picture is short enough to memorize. Make half the plate fruits and vegetables, with vegetables the larger of the two. Make at least half the grains whole grains. Vary the protein routine. Move toward low-fat or fat-free dairy, or fortified soy alternatives.

Vegetables and Fruits: Half the Plate, and Not Interchangeable

Half the plate going to fruits and vegetables is the single instruction most Americans miss, and by a wide margin. National intake data have shown for years that the large majority of adults and children fall short of recommended amounts for both groups. The two are grouped together in the picture, but they are not identical in what they deliver. Vegetables generally carry fewer calories and less sugar per cup and are meant to be the larger portion of the two. MyPlate divides vegetables into five subgroups precisely because eating a cup of iceberg lettuce every day is not the same as eating across the category. Dark green vegetables such as spinach, kale, and broccoli supply vitamin K, folate, and vitamin A. Red and orange vegetables such as carrots, sweet potatoes, tomatoes, and peppers are the major sources of beta carotene and vitamin C. Beans, peas, and lentils count in this group and in the protein group at the same time, which is unusual and reflects that they deliver both fiber and protein. Starchy vegetables such as corn, potatoes, and green peas provide potassium and energy. The fifth subgroup collects everything else, including onions, mushrooms, green beans, and cucumbers. Fruit brings vitamin C, potassium, and fiber, along with natural sugar, which is not the same nutritional problem as added sugar because it arrives packaged with fiber and water. Whole fruit is preferred over juice for exactly that reason. One important and often overlooked detail is that frozen and canned produce count fully. Frozen vegetables are picked and frozen at peak ripeness and are frequently more nutritious than fresh produce that has traveled for a week, and they cost less.

Grains and Protein: Where the Word Whole Earns Its Keep

A whole grain contains all three parts of the original kernel: the bran, which is the fiber-rich outer layer, the germ, which holds most of the vitamins and healthy fat, and the endosperm, which is the starchy center. Refining a grain strips off the bran and the germ and keeps the endosperm, which is why white flour is soft, shelf-stable, and stripped of most of its fiber. Enrichment adds back several B vitamins and iron by law, which is a real public health achievement, but enrichment does not add back fiber and it does not restore the germ. That is the entire argument for the instruction to make at least half of grains whole. Reading the package is required here, because the front of a box is not evidence. Terms like multigrain, stone ground, and made with whole grains can appear on products that are mostly

refined flour. The test is the ingredient list, where a whole grain should appear first, and words like whole wheat flour, brown rice, oats, and quinoa are the ones that count. Protein foods are the group MyPlate deliberately widened. The category includes meat, poultry, eggs, and seafood, and also beans, peas, lentils, nuts, seeds, and soy products. The instruction to vary the protein routine exists because a person eating only ground beef and chicken breast misses what other sources deliver. Seafood, recommended at roughly eight ounces per week for adults, supplies omega-3 fats found almost nowhere else. Nuts and seeds bring vitamin E and magnesium. Beans bring fiber, which meat contains none of at all.

Dairy, and the Circle Off to the Side

Dairy sits beside the plate rather than on it, which reflects both its function and the fact that it is usually consumed as a drink or a side rather than as a section of a meal. The group covers milk, yogurt, cheese, and fortified soy milk, and the reason it exists as its own category is a short list of nutrients that are difficult to reach elsewhere in typical American eating patterns. Dairy is the primary source of calcium, and it is a major source of vitamin D and potassium, all three of which the Dietary Guidelines identify as nutrients that Americans consistently under-consume. Calcium matters especially during the teenage years, because the body builds most of its lifetime bone mass before roughly age twenty. The recommendation for ages nine through eighteen is 1,300 milligrams of calcium per day, higher than the adult recommendation, and adolescence is a window that does not reopen later. MyPlate recommends low-fat or fat-free options, because the calcium, protein, and vitamin D content stays essentially the same while the saturated fat drops. Fortified soy milk is included in the group rather than as a substitute, because it is nutritionally comparable when fortified. Other plant milks, including almond, oat, and rice, vary enormously by brand and are frequently much lower in protein, so they are not automatic swaps and the label has to be read. For people who cannot digest lactose, lactose-free milk retains the full nutrient profile, and other calcium sources include fortified juices, canned fish with soft bones, tofu set with calcium, and dark leafy greens.

The Limits That Are Not Drawn on the Plate

The plate shows what to include. It does not show what to limit, and the limits are a genuine part of the recommendation rather than a footnote. The 2020-2025 Dietary

Guidelines set three of them. Keep added sugars under ten percent of daily calories, which is roughly 50 grams on a 2,000 calorie pattern. Keep saturated fat under ten percent of daily calories, roughly 20 grams. Keep sodium under 2,300 milligrams per day, which is a bit less than a teaspoon of salt. The 2025-2030 Dietary Guidelines, published in January 2026, kept the saturated fat limit and kept the 2,300 milligram sodium limit for ages fourteen and up, but replaced the added sugars percentage with a recommendation that no single meal contain more than 10 grams of added sugars. Most Americans exceed the sodium limit substantially, and the majority of that sodium does not come from a salt shaker at the table. It arrives already inside packaged, restaurant, and prepared foods, which is why cooking from ingredients gives a person more control than seasoning carefully at dinner does. It is also worth being honest about the criticism MyPlate receives, because students raise it themselves. The model assumes a plated meal, which does not describe a burrito, a stir fry, a curry over rice, a sandwich, or a bowl of soup, and much of the world eats that way most of the time. The answer is that the proportions still apply even when the food is mixed together. A burrito can be evaluated by asking what fraction of its filling is vegetables, whether the tortilla or rice is whole grain, and whether the protein is varied. The plate is a ratio, and a ratio survives being stirred.

Key Information: MyPlate at a Glance

Detail	Information
Released	2011 by the USDA, replacing the food pyramid; in use until 2026
Five Groups	Fruits, vegetables, grains, protein foods, and dairy
Core Rule	Half the plate fruits and vegetables, vegetables the larger share
Grains Rule	Make at least half of all grains whole grains
Whole Grain Parts	Bran, germ, and endosperm all present
Teen Calcium	1,300 mg per day for ages 9 through 18
Seafood	About 8 ounces per week for adults

Detail	Information
The Three Limits (2020-2025)	Added sugars and saturated fat under 10 percent; sodium under 2,300 mg. In 2026 the added sugars limit was replaced; saturated fat and sodium were kept.

Case Study: Marcus Audits His Own Tray

Marcus thought the MyPlate assignment was going to be pointless until he actually drew his lunch tray. His Tuesday tray held a chicken patty on a white bun, a scoop of french fries, a chocolate milk, and a fruit cup he had not opened. He shaded in the picture and looked at it. Grains and protein together took up almost the entire plate. Vegetables were represented by french fries, which count as a starchy vegetable but which he admitted were doing a lot of work by themselves. Fruit was technically present and technically still sealed. "So I'm at, what, an eighth of a plate?" he asked. His teacher pointed out that he was closer than he thought, because the pieces were mostly there and the proportions were wrong. Marcus made two changes for the rest of the week. He opened the fruit cup, and he took the side salad the line offered instead of a second helping of fries. "I didn't add anything I hate," he said. "I just moved the ratio."

1. Marcus said his pieces were mostly there but the proportions were wrong. Explain what that means using the MyPlate model.

2. French fries count as a vegetable under MyPlate. Explain why the reading argues that is still not enough, using the vegetable subgroups.

Multiple Choice

1. Which statement best describes what the MyPlate graphic is designed to show?

a) A ranked order of which food groups are most important

b) The exact number of calories a teenager should eat each day

c) The proportion of the plate each food group should occupy

d) The number of servings required from each group per week

2. Enriched white flour has B vitamins and iron added back, but it still lacks the:

a) Calcium found in the outer kernel

b) Protein found in the endosperm

c) Starch found in the whole grain

d) Fiber found in the bran and germ

3. Why does MyPlate count beans and lentils in two different food groups?

a) They are fortified with calcium during commercial canning

b) They can be prepared as either a side dish or a main dish

c) They are the only vegetable that contains no carbohydrates

d) They deliver both fiber and protein in meaningful amounts

Matching

Write the letter of the correct definition on the line next to each term.

Term	Definition
1. ___ MyPlate	A) A grain that still contains its bran, germ, and endosperm
2. ___ Whole Grain	B) The 2011 USDA place-setting model showing food group proportions
3. ___ Enrichment	C) The subgroup holding corn, potatoes, and green peas
4. ___ Starchy Vegetable	D) The 2020-2025 guideline of under 10 percent of daily calories, roughly 50 grams at 2,000
5. ___ Added Sugars Limit	E) Putting several B vitamins and iron back into refined flour

Fill-in-the-Blank

1. MyPlate replaced the food _____ in 2011.

2. Teenagers aged 9 to 18 need 1,300 mg of _____ daily.

3. Daily sodium should stay under _____ milligrams.

Short Answer

Answer each question in 2-4 complete sentences.

1. Explain why MyPlate replaced the food pyramid, using what each model asked of people.

_____

_____

_____

2. Explain why a package labeled multigrain may still not be a whole grain food.

3. Explain how MyPlate can be applied to a burrito or a bowl of soup.