

FOOD PYRAMID MENU

Student/Class Goal

Weight loss and diet information seem to be everywhere, and many of our students are interested in applying this information to their own lives. They can combine this interest with information on the food pyramid to practice skills needed for the GED test: reading, interpreting charts and applying information.

Outcome *(lesson objective)*

Students will read charts about nutrition, exercise, and caloric intake, practice vocabulary strategies and integrate that information with their own experience to create a plan to meet their calorie needs for a week using foods from each food group.

Time Frame

2 hours

Standard *Read with Understanding*

NRS EFL 3-5

Purpose	Benchmarks	Word Knowledge	Benchmarks	Comprehension	Benchmarks
Purpose for reading	3.1, 4.1, 5.1	Decoding skills		Strategy use	3.11, 4.11, 5.11
Select text		Word parts	3.4	Text structural elements	3.12, 4.12
		Context clues	3.5, 4.5, 5.5	Genres	
		Reference materials		Literary analysis	
		Word relationships		Drawing conclusions	3.15, 4.15, 5.15
		Content vocabulary	3.8, 4.8	Making connections	3.16, 4.16, 5.16
		Figurative language			
		Fluency			

Materials

Physical Activity Chart
 My Pyramid Food Intake Pattern Calorie Levels Chart
 My Pyramid Food Intake Patterns Handout
 Meal Tracking Worksheets
 Food Intake Patterns Worksheet
 Food Pyramid Menu Learning Objects

Learner Prior Knowledge

This lesson builds on *Interpreting the Food Pyramid Chart*, where students will have developed a familiarity with the food pyramid and food groups. [The Food Pyramid](#) can be displayed in the classroom. Students will have a working knowledge of simple charts and graphs as well as experience with vocabulary strategies – roots, affixes and context clues.

Instructional Activities

Step 1 - Prior to class, students will have written down the types and amounts of the food they have eaten for at least the previous three days. Have pairs of students discuss the following questions:

- How do the foods you have eaten in the past few days fit into the food pyramid?
- How do the foods meet your nutritional needs?

Have pairs share with the class. Students can work in pairs to categorize their food according to the food groups in the food pyramid.

Step 2 - Have students work in pairs to skim and scan the *Physical Activity Chart* and *My Pyramid Food Intake Pattern Calorie Levels Chart* and discuss the kinds of information contained in them. Have each pair share their findings. You may want to record answers on the board or on chart paper. Have each student determine his/her physical activity level and then use the *My Pyramid Food Intake Pattern Calorie Level* handout to determine his/her recommended calorie intake level. Students will

highlight their level.

Step 3- Have students take a closer look at the text around the charts and write down unfamiliar words they would like to talk about in class. Guide students through the use of context clues and roots and affixes to determine the meanings of the words.

Step 4- If an Internet connection is available, go to the "My Pyramid Plan" section <http://mypyramid.gov/mypyramid/index.aspx> of the My Pyramid website <http://www.mypyramid.gov/index.html>. Have each student enter her information, then print out a *Meal Tracking Worksheet* for his or her calorie intake level. Continue with other interactive tools on the website as students work through the planning process.

TEACHER NOTE If no Internet connection is available in the classroom, the teacher may be able to print out the [Meal Tracking Worksheets](#) before class. *The Food Intake Patterns* chart may also be used or other resources with calorie information.

Students will compare what they ate to the recommendations on the *Meal Tracking Worksheet* and think about what they could add and what they could leave out to meet their recommended caloric intake. Working individually or in pairs, students will write out a plan showing these eating adjustments. Their plans should reflect the recommended caloric intake level and include all the food groups in the suggested amounts. Students can share their plans with the class if desired.

MATH EXTENSION Complete the *Food Intake Patterns* worksheet together or individually.

Assessment/Evidence *(based on outcome)*

Food diaries and food categories
Results of discussion
Highlighted chart
Vocabulary list
Print out of meal tracking worksheet
Eating plan showing adjustments made from their food diary

Teacher Reflection/Lesson Evaluation

Not yet completed.

Next Steps

Learners will write a paragraph about their eating habits and any changes they may or may not make because of this activity. Food Pyramid Menu Learning Objects will give students additional practice interpreting the food pyramid.

Technology Integration

USDA My Pyramid <http://mypyramid.gov/>

Purposeful/Transparent

To be healthy, adults have to think of what they eat, how much food they consume, and how much exercise they get. Also, on the GED test, students are required to read and interpret charts.

Contextual

Information about healthy diet, caloric intake, and exercise are important for our students and their families.

Building Expertise

Students get practice reading and interpreting charts and applying the information to their own lives.

How many calories does physical activity use?

A 154-pound man (5' 10") will use up about the number of calories listed doing each activity below. **Those who weigh more will use more calories, and those who weigh less will use fewer.** The calorie values listed include both calories used by the activity and the calories used for normal body functioning.

Moderate physical activities:	Approximate calories used by a 154 pound man	
	In 1 hour	In 30 minutes
Hiking	370	185
Light gardening/yard work	330	165
Dancing	330	165
Golf (walking and carrying clubs)	330	165
Bicycling (less than 10 miles per hour)	290	145
Walking (3 ½ miles per hour)	280	140
Weight training (general light workout)	220	110
Stretching	180	90
Vigorous physical activities:	In 1 hour	In 30 minutes
Running/jogging (5 miles per hour)	590	295
Bicycling (more than 10 miles per hour)	590	295
Swimming (slow freestyle laps)	510	255
Aerobics	480	240
Walking (4 ½ miles per hour)	460	230
Heavy yard work (chopping wood)	440	220
Weight lifting (vigorous effort)	440	220
Basketball (vigorous)	440	220

MyPyramid Food Intake Pattern Calorie Levels

MyPyramid assigns Individuals to a calorie level based on their sex, age, and activity level.

The chart below identifies the calorie levels for males and females by age and activity level. Calorie levels are provided for each year of childhood, from 2-18 years, and for adults in 5-year increments.

Activity level	MALES			Activity level	FEMALES		
	Sedentary*	Mod. active*	Active*		Sedentary*	Mod. active*	Active*
AGE				AGE			
2	1000	1000	1000	2	1000	1000	1000
3	1000	1400	1400	3	1000	1200	1400
4	1200	1400	1600	4	1200	1400	1400
5	1200	1400	1600	5	1200	1400	1600
6	1400	1600	1800	6	1200	1400	1600
7	1400	1600	1800	7	1200	1600	1800
8	1400	1600	2000	8	1400	1600	1800
9	1600	1800	2000	9	1400	1600	1800
10	1600	1800	2200	10	1400	1800	2000
11	1800	2000	2200	11	1600	1800	2000
12	1800	2200	2400	12	1600	2000	2200
13	2000	2200	2600	13	1600	2000	2200
14	2000	2400	2800	14	1800	2000	2400
15	2200	2600	3000	15	1800	2000	2400
16	2400	2800	3200	16	1800	2000	2400
17	2400	2800	3200	17	1800	2000	2400
18	2400	2800	3200	18	1800	2000	2400
19-20	2600	2800	3000	19-20	2000	2200	2400
21-25	2400	2800	3000	21-25	2000	2200	2400
26-30	2400	2600	3000	26-30	1800	2000	2400
31-35	2400	2600	3000	31-35	1800	2000	2200
36-40	2400	2600	2800	36-40	1800	2000	2200
41-45	2200	2600	2800	41-45	1800	2000	2200
46-50	2200	2400	2800	46-50	1800	2000	2200
51-55	2200	2400	2800	51-55	1600	1800	2200
56-60	2200	2400	2600	56-60	1600	1800	2200
61-65	2000	2400	2600	61-65	1600	1800	2000
66-70	2000	2200	2600	66-70	1600	1800	2000
71-75	2000	2200	2600	71-75	1600	1800	2000
76 and up	2000	2200	2400	76 and up	1600	1800	2000

*Calorie levels are based on the Estimated Energy Requirements (EER) and activity levels from the Institute of Medicine Dietary Reference Intakes Macronutrients Report, 2002.

SEDENTARY = less than 30 minutes a day of moderate physical activity in addition to daily activities.

MOD. ACTIVE = at least 30 minutes up to 60 minutes a day of moderate physical activity in addition to daily activities.

ACTIVE = 60 or more minutes a day of moderate physical activity in addition to daily activities.



MyPyramid

Food Intake Patterns

The suggested amounts of food to consume from the basic food groups, subgroups, and oils to meet recommended nutrient intakes at 12 different calorie levels. Nutrient and energy contributions from each group are calculated according to the nutrient-dense forms of foods in each group (e.g., lean meats and fat-free milk). The table also shows the discretionary calorie allowance that can be accommodated within each calorie level, in addition to the suggested amounts of nutrient-dense forms of foods in each group.

Daily Amount of Food From Each Group												
Calorie Level ¹	1,000	1,200	1,400	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Fruits ²	1 cup	1 cup	1.5 cups	1.5 cups	1.5 cups	2 cups	2 cups	2 cups	2 cups	2.5 cups	2.5 cups	2.5 cups
Vegetables ³	1 cup	1.5 cups	1.5 cups	2 cups	2.5 cups	2.5 cups	3 cups	3 cups	3.5 cups	3.5 cups	4 cups	4 cups
Grains ⁴	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	6 oz-eq	6 oz-eq	7 oz-eq	8 oz-eq	9 oz-eq	10 oz-eq	10 oz-eq	10 oz-eq
Meat and Beans ⁵	2 oz-eq	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	5.5 oz-eq	6 oz-eq	6.5 oz-eq	6.5 oz-eq	7 oz-eq	7 oz-eq	7 oz-eq
Milk ⁶	2 cups	2 cups	2 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups
Oils ⁷	3 tsp	4 tsp	4 tsp	5 tsp	5 tsp	6 tsp	6 tsp	7 tsp	8 tsp	8 tsp	10 tsp	11 tsp
Discretionary calorie allowance ⁸	165	171	171	132	195	267	290	362	410	426	512	648

1 **Calorie Levels** are set across a wide range to accommodate the needs of different individuals. The attached table “Estimated Daily Calorie Needs” can be used to help assign individuals to the food intake pattern at a particular calorie level.

2 **Fruit Group** includes all fresh, frozen, canned, and dried fruits and fruit juices. In general, 1 cup of fruit or 100% fruit juice, or 1/2 cup of dried fruit can be considered as 1 cup from the fruit group.

3 **Vegetable Group** includes all fresh, frozen, canned, and dried vegetables and vegetable juices. In general, 1 cup of raw or cooked vegetables or vegetable juice, or 2 cups of raw leafy greens can be considered as 1 cup from the vegetable group.

Vegetable Subgroup Amounts are Per Week												
Calorie Level	1,000	1,200	1,400	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Dark green veg.	1 c/wk	1.5 c/wk	1.5 c/wk	2 c/wk	3 c/wk	3 c/wk	3 c/wk	3 c/wk	3 c/wk	3 c/wk	3 c/wk	3 c/wk
Orange veg.	.5 c/wk	1 c/wk	1 c/wk	1.5 c/wk	2 c/wk	2 c/wk	2 c/wk	2 c/wk	2.5 c/wk	2.5 c/wk	2.5 c/wk	2.5 c/wk
Legumes	.5 c/wk	1 c/wk	1 c/wk	2.5 c/wk	3 c/wk	3 c/wk	3 c/wk	3 c/wk	3.5 c/wk	3.5 c/wk	3.5 c/wk	3.5 c/wk
Starchy veg.	1.5 c/wk	2.5 c/wk	2.5 c/wk	2.5 c/wk	3 c/wk	3 c/wk	6 c/wk	6 c/wk	7 c/wk	7 c/wk	9 c/wk	9 c/wk
Other veg.	3.5 c/wk	4.5 c/wk	4.5 c/wk	5.5 c/wk	6.5 c/wk	6.5 c/wk	7 c/wk	7 c/wk	8.5 c/wk	8.5 c/wk	10 c/wk	10 c/wk

4 **Grains Group** includes all foods made from wheat, rice, oats, cornmeal, barley, such as bread, pasta, oatmeal, breakfast cereals, tortillas, and grits. In general, 1 slice of bread, 1 cup of ready-to-eat cereal, or 1/2 cup of cooked rice, pasta, or cooked cereal can be considered as 1 ounce equivalent from the grains group. **At least half of all grains consumed should be whole grains.**

5 **Meat & Beans Group** in general, 1 ounce of lean meat, poultry, or fish, 1 egg, 1 Tbsp. peanut butter, 1/4 cup cooked dry beans, or 1/2 ounce of nuts or seeds can be considered as 1 ounce equivalent from the meat and beans group.

6 Milk Group includes all fluid milk products and foods made from milk that retain their calcium content, such as yogurt and cheese. Foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not part of the group. Most milk group choices should be fat-free or low-fat. In general, 1 cup of milk or yogurt, 1 1/2 ounces of natural cheese, or 2 ounces of processed cheese can be considered as 1 cup from the milk group.

7 Oils include fats from many different plants and from fish that are liquid at room temperature, such as canola, corn, olive, soybean, and sunflower oil. Some foods are naturally high in oils, like nuts, olives, some fish, and avocados. Foods that are mainly oil include mayonnaise, certain salad dressings, and soft margarine.

8 Discretionary Calorie Allowance is the remaining amount of calories in a food intake pattern after accounting for the calories needed for all food groups—using forms of foods that are fat-free or low-fat and with no added sugars.

Estimated Daily Calorie Needs

To determine which food intake pattern to use for an individual, the following chart gives an estimate of individual calorie needs. The calorie range for each age/sex group is based on physical activity level, from sedentary to active.

	Calorie Range	
	Sedentary →	Active
Children		
2–3 years	1,000 →	1,400
Females		
4–8 years	1,200 →	1,800
9–13	1,600 →	2,200
14–18	1,800 →	2,400
19–30	2,000 →	2,400
31–50	1,800 →	2,200
51+	1,600 →	2,200
Males		
4–8 years	1,400 →	2,000
9–13	1,800 →	2,600
14–18	2,200 →	3,200
19–30	2,400 →	3,000
31–50	2,200 →	3,000
51+	2,000 →	2,800

Sedentary means a lifestyle that includes only the light physical activity associated with typical day-to-day life.

Active means a lifestyle that includes physical activity equivalent to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.



Food Intake Patterns Worksheet

Use the Food Intake Patterns Worksheet to answer the following questions.

1. If you are on a 1,400-calorie level, how many cups of vegetables should you eat in a day?
2. If you are on a 2,200 calorie level, how many ounces of grains could you eat?
3. How many slices of bread would be the equivalent of 6 ounces of grains?
4. How many cups of pasta would be equivalent of 3 ounces of grains?
5. How many eggs are considered the equivalent of 1 ounce of meat & beans?
6. How many cups of carrots would you have to eat to eat the equivalent of 1 cup of vegetables?
7. How many cups of fresh spinach would you have to eat to eat the equivalent of 1 cup of vegetables?
8. How many teaspoons of oil are you allowed in a day if you are on a 1600 calorie level?
9. How many ounces of processed cheese would be considered one cup from the milk group?



<http://www.wisconline.org>

The Food Pyramid

Author: Michele Williams

School: Fox Valley Technical College **Date:** 12/4/2001

Description: Students read about the food pyramid and view the kinds of servings in each food group that are recommended for daily consumption.

http://www.wisc-online.com/objects/index_tj.asp?objID=ABC401

Dietary Manager Training: The Food Guide Pyramid

Author: Kristy Norenberg

School: Southwest Wisconsin Technical College **Date:** 6/17/2003

Description: Learners read about the U.S. Department of Agriculture's guide for daily food choices. They then recreate the Food Guide Pyramid.

http://www.wisc-online.com/objects/index_tj.asp?objID=DTY1303