

GROW YOUR PALS PROGRAM GUIDE



THE NATIONAL FFA MENTORING PROGRAM

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LESSON 3.4

Serving Size, Hydration and Digestion

Unit:
FOOD AND NUTRITION

PRECEPTS

G. Physical Growth

G4. Set goals for long-term health.



Lesson Type:
Small Group

NATIONAL STANDARDS

CS.02.01.01.b. Create a balanced menu to ensure appropriate proportions of desired nutritional elements.

CS.02.01.03.a. Describe practices that must be maintained to achieve longterm health.

NL-ENG.K-12.12 – Applying Language Skills

NS.K-4.6 – Science in Personal and Social Perspectives

NT.K-12.5 – Technology Research Tools

STUDENT LEARNING OBJECTIVES

As a result of this lesson, the student will ...

- Determine *serving sizes* based on packaging labels.
- Describe how *serving size* can vary depending upon nutritional information.
- Describe why water is important in aiding digestion.





TIME

Instruction time for this lesson: **30 minutes.**



RESOURCES

National FFA Organization. (2003). LifeKnowledge Precepts and Signs of Success.



TOOLS, EQUIPMENT AND SUPPLIES

- ✓ Pleated coffee filter
- ✓ Powered drink mix
- ✓ Teaspoon
- ✓ Ruler
- ✓ Glass of water
- ✓ Large paperclips
- ✓ Ten different snacks in original packaging (*chips, cookies, fruit, candy, nuts, cheese sticks, etc.*), for each small group
- ✓ Small paper plates
- ✓ Plastic utensils (*if any of the snacks require them*)
- ✓ PALS3.4.SG.ASSESS.A

KEY TERMS



The following terms are presented in this lesson and appear in ***bold italics***:

Serving size

Hydrate



CONTENT OUTLINE

Objective 1. | Determine *serving sizes* based on packaging labels.

1. Locate ***serving sizes*** on packaging labels

Objective 2. | Describe how *serving size* can vary depending upon nutritional information.

1. ***Serving size activity***
2. Large vs. small ***serving sizes***
3. Identify common ingredients in foods with large ***serving sizes***

Objective 3. | Describe why water is important in aiding digestion.

1. ***Hydration*** activity
2. Water breaks down food during digestion

INTEREST APPROACH

Place 10 snacks in front of small group. Have each student rank these snacks based upon personal preference. Record these preferences on scratch paper.



In front of us are 10 popular snacks. Take a moment to rank these based upon your personal preference. Record your ranking on a piece of scratch paper.

Allow students a short time to rank the 10 snacks.



Today we will take a closer look at each of these foods, their **serving sizes**, and common ingredients found amongst them. Then we will discover what we can do to help our bodies digest these foods.

SUMMARY OF CONTENT AND TEACHING STRATEGIES

OBJECTIVE 1. | Determine *serving sizes* based on packaging labels.



Let's first take a glance at these 10 packages. What do these packages have in common?

Give each group member one package for them to examine. Responses should lead toward all of the packages having nutritional labels.



What is the importance of these labels?

Responses should lead toward the fact that these labels make consumers aware of what they are eating, nutritional information found in the food, etc.



There is one specific part of these nutritional labels that we need to be aware of – the **serving size**. The **serving size** is located towards the top of the packaging label. Take a look at yours and your neighbors **serving sizes**. Are they the same?

Most packages will not be exactly the same.



Each package has potential to contain a different **serving size**. That's why it is important for us look at every **serving size** when figuring the nutritional information of what we are eating. Now that we've located the **serving sizes**, let's examine what these really look like. Grab a small paper plate. Using the nutritional label, place one serving of your snack on the paper plate.

Assist students with this if necessary. After all students are finished, have students observe each others' plates.



What do you see?

*Responses should lead toward the fact that some **serving sizes** seem large while others seem small.*



Would anyone reconsider their preference list now that we can see how much we get in each serving?



Solicit responses from the group and lead a discussion about why or why not students choose to change their order of preference.

OBJECTIVE 2. | Describe how **serving size** can vary depending upon nutritional information.



What makes some snacks have larger **serving sizes**? To answer this question, let's turn our attention to the bottom portion of the nutritional label. We will be looking in the ingredient portion of the nutritional label. On the side of the small plate, write down the first five ingredients found in your snack.

*Direct students to the ingredient portion of the nutritional label. After all students have the top five ingredients listed, have them compare their list with someone who has approximately the same **serving size** as they do.*



Pair up with a classmate that has about the same **serving size** as what is found on your plate. What ingredients do the two lists have in common?

Observe as students create common ingredient lists. Compare the ingredients found in snacks with large **serving sizes** and those with small **serving sizes**. What is alike? What is different?



Let's take a look at these ingredients. First, what common ingredients were found in snacks with large **serving sizes**?

Solicit responses from students that compared large serving sized snacks.



Did the snacks with small **serving sizes** have any of these same ingredients?

*Some ingredients may overlap, but draw the conclusion that snacks with larger **serving sizes** contain healthier products like whole grains and fiber. Those with smaller **serving sizes** contain more sugar and artificial ingredients.*

*Split students into pairs. Use the Eye Witness News e-Moment® to have students interview each other about how to determine **serving sizes**, where they are located on food packages, and ingredients found in food with larger **serving sizes** and smaller **serving sizes**.*



When I say REPORT, grab one other person in the group. The tallest person in the pair will be the reporter and the other person is being interviewed. Take the next two minutes to make a news report about what we have discovered about **serving sizes** and ingredients found in food with different **serving sizes**. What questions do you have?

REPORT!

When two minutes are up, select two pairs to share.



Who will share first?

Allow students a few moments to share.



We have discovered that different foods have different **serving sizes**, and **serving sizes** are affected by the ingredients used to make the foods. Now that we have that nailed down, let's discover how we can help our bodies digest the foods we put in it every day.



OBJECTIVE 3. | Describe why water is important in aiding digestion.



Prepare a pleated coffee filter, powdered soft drink mix, teaspoon, ruler, glass of water, and large paperclips for the activity below. Assist students through the activity when needed.



Fold a round, pleated coffee filter in half. Open it up and sprinkle one teaspoon of drink mix along the fold. Be sure to stop a quarter inch from each end. Next, fold the filter back in half. Roll it to form a tube with the drink mix inside. Connect the ends of the tub together to form a circle and secure this with a paperclip. Place this paper circle in a half-cup of water, and let's watch what happens.

Observe the drink mix passing through the coffee filter.



What did we see? What was the end result of this?

Get feedback from students on their observations. Following their share, replace the thought of drink mix with that of nutrient and the coffee filter with the intestine lining and bloodstream. Lead a discussion on the effect of these nutrients if there was no water.



Keep this activity in the front of your minds, but substitute the drink mix for nutrients and instead of the coffee filter think of it as intestinal lining and the bloodstream. What needs to be present in order for the nutrients to be released through the intestinal lining and the bloodstream?

Solicit responses from students – water.



That's correct. We need water in order for the nutrients to be properly digested. How would being dehydrated affect this process?

Solicit responses from the students about how the nutrients would not be able penetrate the intestinal wall; soak into the bloodstream, etc.



Precisely right. It's important to stay **hydrated** in order for the nutrients in our food to be adequately used.



REVIEW / SUMMARY

Today we have had the opportunity to explore **serving sizes**, identify common ingredients found in foods with large **serving sizes**, and discover how water aids in digestion. Before ending today, take one minute to write down a goal you want to accomplish this week that will personally help you be a healthier individual.

Take a few moments to visit with students about their goals. Encourage students to continue working towards their goals.



These goals look good so far. Hopefully we can all help each other achieve the goals we made for the week. Goals give us something to shoot for and something to achieve. This weekly goal is a good start, but consider setting a long term goal for a healthier lifestyle. How could we benefit by setting a long term health goal?

Responses from the group might include: It will help us be more healthy, it will give use something to work towards, etc.



Precisely right. What might a long term health goal sound like?

Ideas might include: Exercising a minimum of three times a week for one month, eating the correct recommended servings from each section of the food pyramid for one month, drink at least six glasses of what each day for one month, etc.



Looks like we have a good grasp of long term goals, so let's add one to our paper underneath our goal for this week.

Take a few moments to visit with students about their goals. Encourage students to strive to meet this long term goal and weekly goal.

APPLICATION



Large Group Idea

Take a closer look into digestion. Consider what other essentials are needed to aid in digestion? How would the disappearance of these items affect digestion and/or nutrient uptake?



One-on-One Idea

*Have students keep a journal for one week, writing down all foods and drinks taken in throughout that time. In addition to keep track of the foods, write down the **serving sizes** taken in. At the end of the week evaluate what was eaten. Determine what were healthy choices and what choices should have been made differently.*



PALS3.4.SG.ASSESS.A | EVALUATION ANSWER KEY

1. Toward the top of the nutritional label
2. Answers will vary based upon discussion from earlier in the lesson
3. Water helps break down the food so it is able to be absorbed into the intestinal lining and bloodstream



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Name _____

Answer the following questions with a short response.

1. Where is the serving size located on the nutritional label?
2. What common ingredients are found on foods with large serving sizes?
3. What role does water play in the digestion of food and nutrients?