

2023 Summer Nutrition Club Lesson Plans

Summer Nutrition Club Superheroes



Lesson 2: Powerful Protein & Glorious Grains

Supplies

- Copies of lesson plan for each station (2)
- One lesson 2 packet per child
- Markers/crayons/colored pencils to fill out packet
- Protein activity supplies
 - Protein food cards, laminated
- Whole grain activity supplies
 - Whole grain images, laminated
 - Whole grain anatomy image
 - Example of actual wheat stalk (optional)
 - Whole grain model supplies (optional)
 - Bran – brown paper bag with clear front if possible (bakery bag)
 - Endosperm - polyester fiber filling (white pillow stuffing)
 - Germ - yellow paper cut into a circle
 - Grains Superhero relay race supplies
 - Two sets of matching grain product examples – printed cards or actual product packages (see end of lesson guide for printable cards)
 - Equal numbers of whole grain and refined grain examples – 5-15 each depending on group size
 - Four buckets or bags (paper bags, reusable shopping bags, etc.) - two labeled as “whole grains”, two labeled as “refined grains” - to sort the grain products into
 - Answer key
- “Guess the Grain” exploration station
 - Whole grain samples – whole grain pasta, whole wheat bread, and whole grain Goldfish - 1 small piece per child
 - Refined grain samples – enriched pasta, white bread, and regular Goldfish – 1 small piece per child



GLEANERS

- 2 small paper plates per child – labeled as #1 and #2
- Hand sanitizer
- Paper towels
- Sanitizing wipes
- Recipe ingredients and supplies – trail mix bar
 - Whole grains: whole grain Goldfish, pre-popped popcorn (such as Skinny Pop), whole grain pretzels, etc.
 - Proteins: roasted chickpea snacks (such as Biena), nuts, seeds
 - Fruits: dried cranberries, raisins, etc.
 - Fun add-ins: M&Ms, chocolate chips, jellybeans, mini marshmallows, etc.
 - 1 plastic bag or paper bowl per child
 - Spoons, measuring cups, or plastic gloves to put food items in children's bags/bowls
 - Labels for each ingredient (optional)
- Clipboard with weekly post-class questions sheet to record total number of children present and number who tried the recipe

Preparation

- Purchase/gather ingredients, and supplies.
- Print all paper materials, and handouts.
- Day of lesson:
 - Train helpers in their roles with the lesson. Recruit their help with set-up and classroom management activities, such as:
 - Handing out materials throughout lesson
 - Sensory activity in small groups
 - Helping scoop trail mix components into children's bags
 - Leading one of the stations
 - Keeping children quiet, focused, and organized
 - Set up stations for each of the lesson activities, placing the supplies out of sight and reach of the children if possible.
 - Set up the trail mix bar with a station for each ingredient. Label each ingredient and assign adult helpers to dish out the options depending on what each child would like to add to their trail mix bag.

Objectives

By the end of the lesson, children will:

1. Be able to state at least one way protein helps their bodies
 2. Correctly distinguish between plant and animal sources of protein
 3. Be able to state at least one way grain foods help their bodies
 4. Be able to state what proportion of the grains they eat should be whole grains
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Review from last week (3 minutes)

- Quickly review fruits and vegetables and the rainbow superpowers.
 - Can anyone tell me what two superheroes we met last week? How much of your plate should fruits and vegetables take up? Does anyone remember any superpowers fruit and veggies can give you?

- Today we are going to meet two more superhero food groups that give your body awesome superpowers and complete another superhero mission!

Powerful Protein (8 minutes)

- Today we are going to talk about the other half of MyPlate: protein and grains. (Hold up MyPlate example). First, let's talk about the superhero food group powerful protein.
 - How much of our plate should be protein? ($\frac{1}{4}$)
- Can anyone think of a protein food?
 - Possible answers: beef, chicken, fish, shrimp, pork, nuts, beans, soy, eggs, tofu, salmon, etc.
- All of these foods are great sources of protein. Does anyone have a guess of what superpower protein gives us?
 - Powerful protein helps you build muscle and other parts of your body.
 - After you eat a food with protein, your stomach breaks down the protein into little blocks
 - Then your body builds these little blocks into something new like your skin or muscles. Powerful protein helps keep us strong and healthy!
- There are many great options of protein you can choose from, and we are going to learn about them today. Some protein options come from animals, and some come from plants.
 - Protein that comes from animals includes meat, poultry, fish, and seafood
 - Meat refers to protein from cows (beef) and pigs (pork)
 - Does anyone know what meat from cows is called? (beef) What are some foods that are made of beef?
 - Burgers, meatballs, steak, taco meat, etc.
 - Does anyone know what meat from pigs is called? (Pork) What are some foods that are made of pork?
 - Sausage, bacon, ham, pork chops, etc.
 - Poultry refers to protein from birds like chicken and turkey
 - What are some foods you like that has chicken or turkey?
 - Chicken nuggets, chicken breast, turkey sandwich, etc.
 - Fish/seafood are any protein options that come from the sea or water
 - Has anyone tried fish or seafood before? What did you have?
 - Shrimp, salmon, crab, tuna, lobster, etc.
 - Turn to page 3 in your packet. In the middle of the page, there is a chicken, a cow, a pig, and a fish. Draw a line from each animal in the middle to the animal protein group that the protein comes from.
 - Go through the correct answers and ask different children what they thought.
- Protein that comes from plants includes soy, nuts, seeds, and legumes
 - Who has heard of tofu? Tofu is a plant-based protein that is made from soy.
 - Legumes include beans, peas, and lentils. Has anyone ever had lentils before? Lentils are kind of like beans, but they are thinner and flatter. Lentils are easy to cook and do not have a super strong taste.
 - There are images of different plant protein on page 4 of your packet, and you can see what tofu and lentils look like there.
- Plant vs. Animal protein game



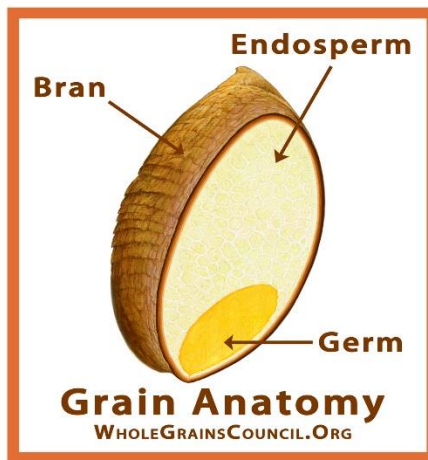
G L E A N E R S

- Now that we have talked about animal and plant proteins, we are going to play a game. I want everyone to stand up and spread out a little bit.
- I am going to hold up a picture of a protein food and if that food is a plant protein, I want you to put your arms straight up like you are a plant (demonstrate). If that food is an animal protein, then I want you to make the noise of the animal that it comes from. If it comes from a fish or seafood, make your best fish face.
 - Remember beef comes from what animal? (Cow) and pork comes from what animal (pig)?
 - Show at least 1 example of each type of protein.
- After the activities, explain that some people like to eat meat and some people don't eat any animal proteins – that's perfectly ok!
 - Do you know what people who do not eat meat are called? (vegetarians)
 - You can get all the protein your body needs from just plants, just animals, or a mix of both! Just like it's good to eat a whole rainbow of fruits and vegetables, it's good to eat lots of different kinds of protein foods because each one has its own mix of superpowers!
 - Tip: If a child asks about the difference between vegetarians and vegans, explain:
 - Vegetarians typically don't eat any kind of meat, but many still eat other animal foods like eggs, milk, and cheese.
 - Vegans do not eat any animal proteins, so they only eat plant proteins like beans, nuts, and soy.

Glorious Grains (8 minutes)

- Next, we are going to meet the superhero food group Glorious Grains. (Hold up MyPlate example). How much of the plate does the grains group take up? (One-fourth)
- Does anyone have an idea what superpower glorious grains give us?
 - Grains give us energy for running, jumping, dancing, talking, and even blinking. Everything we do uses energy!
- Can anyone name any foods that are grains? (Bread, rice, pasta, tortillas, crackers, bagels, oats, cereal)
- There are two types of grain choices: whole grains and refined grains – has anyone ever heard of a whole grain?
 - A whole grain has all the parts of the grain still in the food. We are going to use wheat as an example to talk about whole grains. Wheat is a grain that grows in a big field.
 - One of those plants is called a stalk of wheat. We have a stalk of wheat you can look at today.
 - Show children stalk of wheat and point out kernels at the top.
 - A stalk of wheat is made up of kernels. Kernels of wheat can be ground up into flour and used to make bread, cakes, cookies, and lots of other yummy foods.
 - If we take a closer look at one grain, it has 3 different layers: the bran, the endosperm, and the germ. You can see a picture of the different parts of a grain on page 5 of your packet.

GLEANERS



- **Grain anatomy model:** Get out the whole grain model, but do not show the inside of the bag yet. There are three parts to a grain and each part has a superpower it gives the body.
 - Show backside of paper bag: The outside of the grain is called the **bran** and it has fiber that helps us feel full and acts like a broom to keep food moving through our bodies.
 - There are two other parts of the grain inside the bran (Show clear part of bag so children can see parts inside)
 - The white fluff is the endosperm. The endosperm gives us energy to move and think.
 - The yellow part is the **germ**. The germ has B vitamins that help us to turn our food into energy.
 - All 3 parts together make a **whole grain!**
 - Sometimes these layers are taken apart and the bran and germ are removed (take white fluffy stuff out of bag and put bag with yellow paper inside under the table), leaving us with only the endosperm. Grains with only the endosperm are called **refined grains**.
 - Refined grains are found in foods like white bread, flour tortillas, white rice, and cupcakes.
 - Refined grains can be tasty, and they still give us energy, but they are missing the other superpowers like fiber and B vitamins that whole grains have. That's why eating whole grains is important.
- Does anyone know how much of the grains we eat should be whole grains? (Half or more). Repeat after me: make at least **HALF** of your grains **WHOLE!**
 - What are some other whole grain foods you can think of? (Whole wheat bread, whole wheat or corn tortillas, brown rice, wild rice, whole wheat pasta, quinoa, oats, whole grain crackers, popcorn, etc.)
 - There are different ways a food package will tell you if it is a whole grain food. Look at page 4 in your packet to see some different ways a package may tell you a food is a whole grain. The first ingredient should say "whole wheat," "100% whole wheat," or "whole grain." You can also look for a Whole Grain stamp on packages like this:



Activity Stations (10 minutes each with a 2-minute transition time)

- **Grains Superhero Competition**

- Superheroes like to have fun too, so we are going to have a grains superhero relay race
- Divide children into two teams
- Give each team a set of packages of different grain products – some whole grains and some refined grains. There should be equal amounts of whole grain and refined grain products for each group.
- Explain the rules of the game:
 - Have the children in each group get into a line. When the leader says “go”, the person in the front of the line will pick a food package out of the bag.
 - Decide if the item is made from whole grains or refined grains then run to the other side of the room and put it in the food item in the correct bucket (refined or whole grain)
 - Once each food item has made it into a bucket, all members of your team should sit down and raise their hand. Once both groups are done, go over the correct answers and if it is a whole grain item, show how they can tell that product is a whole grain (says 100% whole grain/whole wheat, whole grain logo, whole grain in ingredients, etc.)

- **Exploration Station – Guess the Grain**

- We have another superhero mission for you this week. Many times, there are both whole grain and refined grain options of different foods. Today, you are going to explore 3 different foods and try to figure out which one is a whole grain, and which one is a refined grain. Just like last week, remember when completing missions, it's important to be brave and polite. Be brave and try the food even if you think you might not like it. If you do not like the food once you try it, be polite and quietly put it in your napkin or in the trash and remember other people may like the food even if you don't.
- We are going to use our senses again this week to explore these different foods and decide whether it is a whole grain or refined grain. You are going to guess which one you think it is on page 6 of your packet.
- Give each child a paper plate with #1 and #2 written on it. Make sure you know which number is the refined grain and which number is the whole grain for each item when you put them out so you can reveal the correct answers at the end.
 - Tip: It is easier to keep track of which product is a whole grain and which is a refined grain if they are the same number for each food item. For example, #1 is always the refined grain and #2 is always the whole grain or vice versa.
- Give each child one piece of whole grain pasta and one piece of regular pasta.
 - Ask the children to look at both pieces of pasta. What is different about them? What is the same?
 - Ask the children to feel both pieces of pasta. What is different about them? What is the same?
 - Ask the children to smell both pieces of pasta. Do they smell the same or different?
 - Lastly, ask the children to taste both pieces. Do they taste the same? If not, how do they taste different?
- After the children have explored both pieces of pasta, have them circle which type of grain they think each number food item is on page 6 of their packet.
- Next, give each child one piece of whole grain bread and one piece of white bread (cut bread into smaller pieces instead of giving children a whole piece of bread). Repeat the same process as the pasta to have the children look at, feel, smell, and taste the bread, and guess which one is a whole grain, and which one is a refined grain.
- Lastly, give each child one whole grain Goldfish and one regular Goldfish. Repeat the same process as the bread to have the children look at, feel, smell, and taste the crackers, and guess which one is a whole grain, and which one is a refined grain.



GLEANERS

- After they have made guesses in their packets, reveal which grains were whole grains and which grains were refined grains. Have a discussion about their guesses. Were they correct or incorrect?
 - Why did they think a certain product was refined vs whole?
 - Do they think there is a large difference between refined and whole grains?
 - Which was their favorite whole grain product and why? If they don't like one of the grain products, remind them that only half of their grains have to be whole grains so if they don't like one whole grain option, they can choose whole grains somewhere else throughout the day.

Recipe Tasting – Mighty Mix (15 minutes)

- Next, we are going to be making superhero trail mix that has both grains and protein to give you the superpowers we talked about today.
- Invite children to come up and create their own trail mix by going down the line and telling the adult helpers which ingredients they would like to add to their bag/bowl.
 - It may be easier to have half of the class go first and then the other half rather than forming a long line.
 - Be mindful of food allergies and be careful not to cross-contaminate potential allergen foods!
 - Have the adult helpers scoop out a measured amount of each ingredient (¼ cup, 1 tablespoon, etc.) to make sure each child gets the same amount.

Post-assessment/Wrap-up (4 minutes)

- As children are sitting down with their trail mix, ask about what they put in their trail mix.
 - What grains did you choose? Did you pick any of the protein?
 - What other things may have been good in the trail mix?
- Can someone tell me something they learned today?
- Raise your hand if today was the first time you tried whole grain pasta? What about whole grain bread? And whole grain Goldfish?

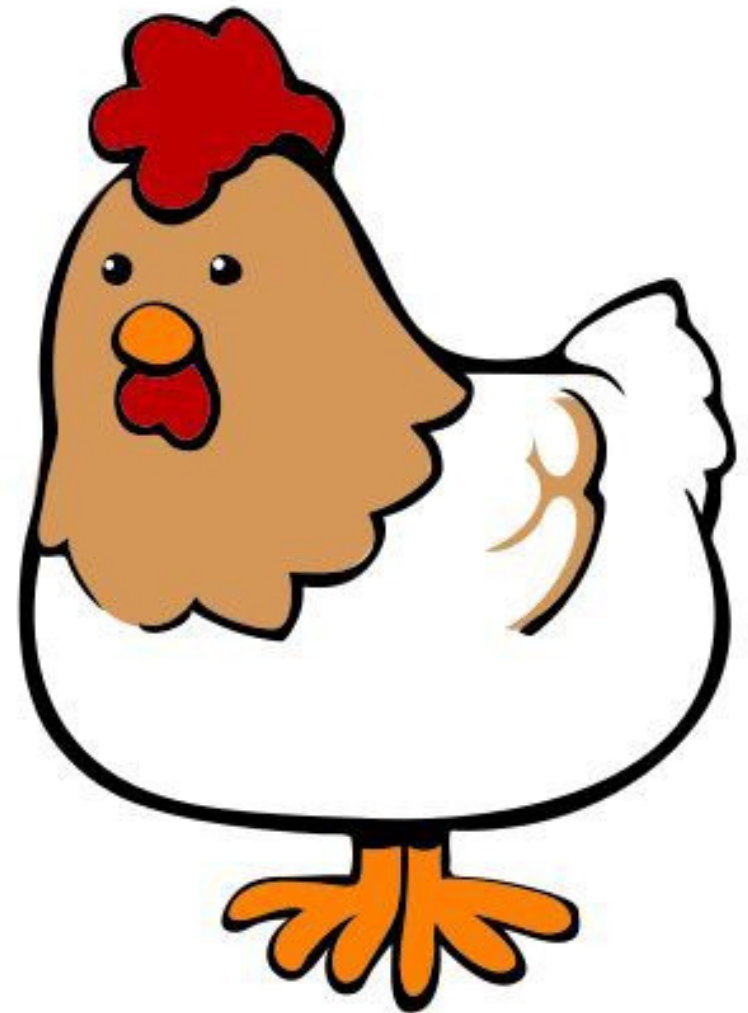
Clean Up

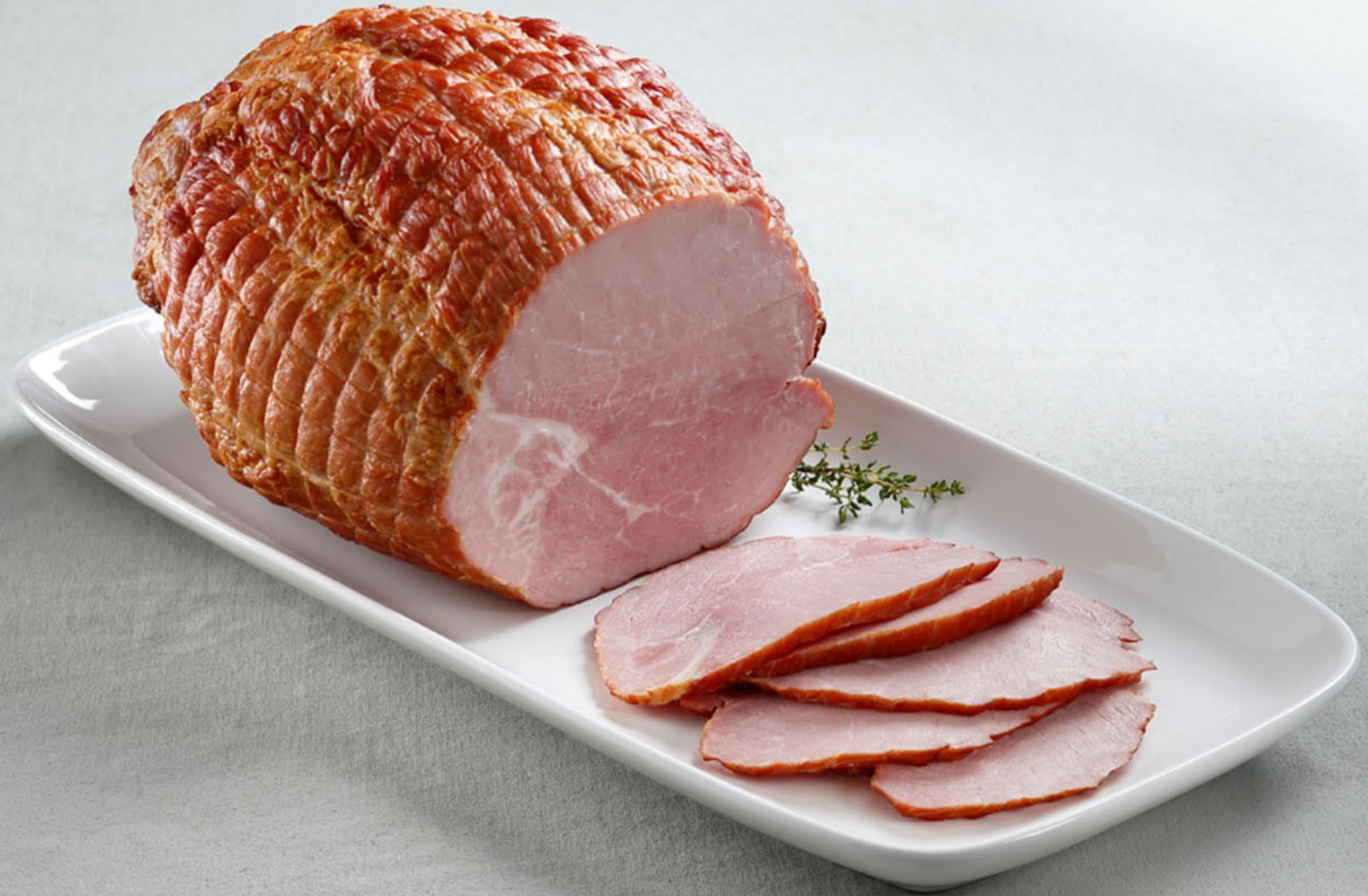
- Gather and clean supplies
- Sanitize tables
- Throw trash away
- Gather extra handouts



Chicken

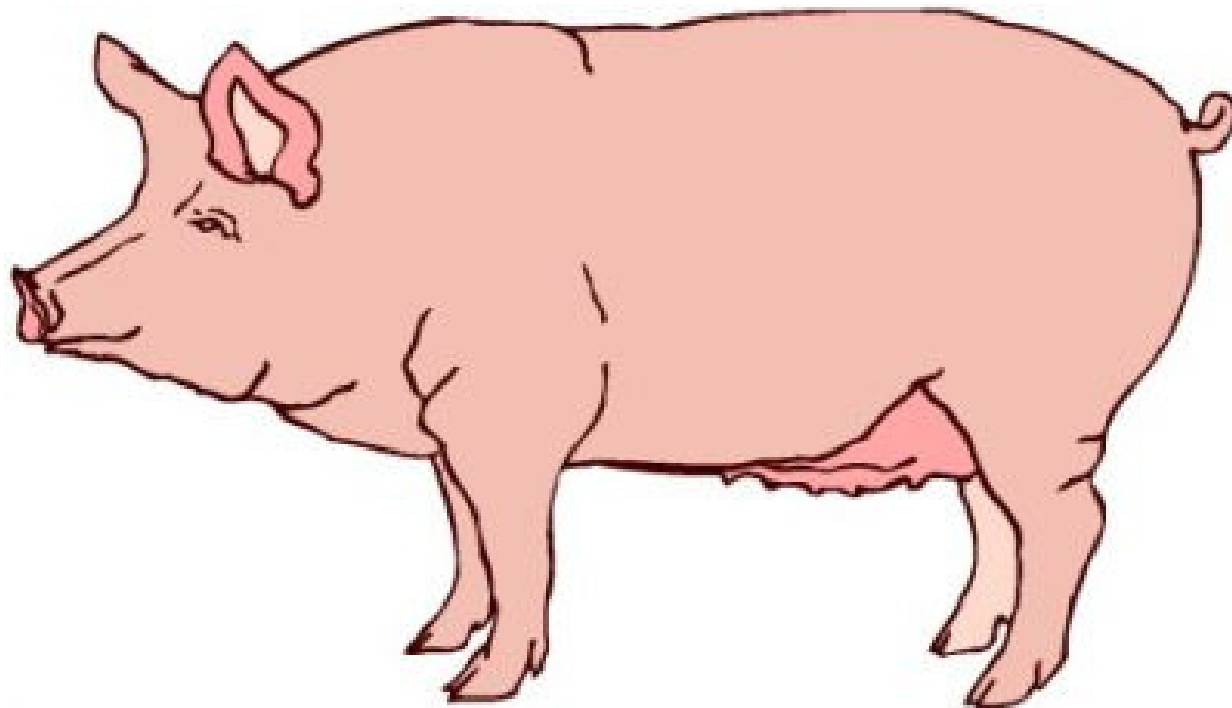
Animal Protein

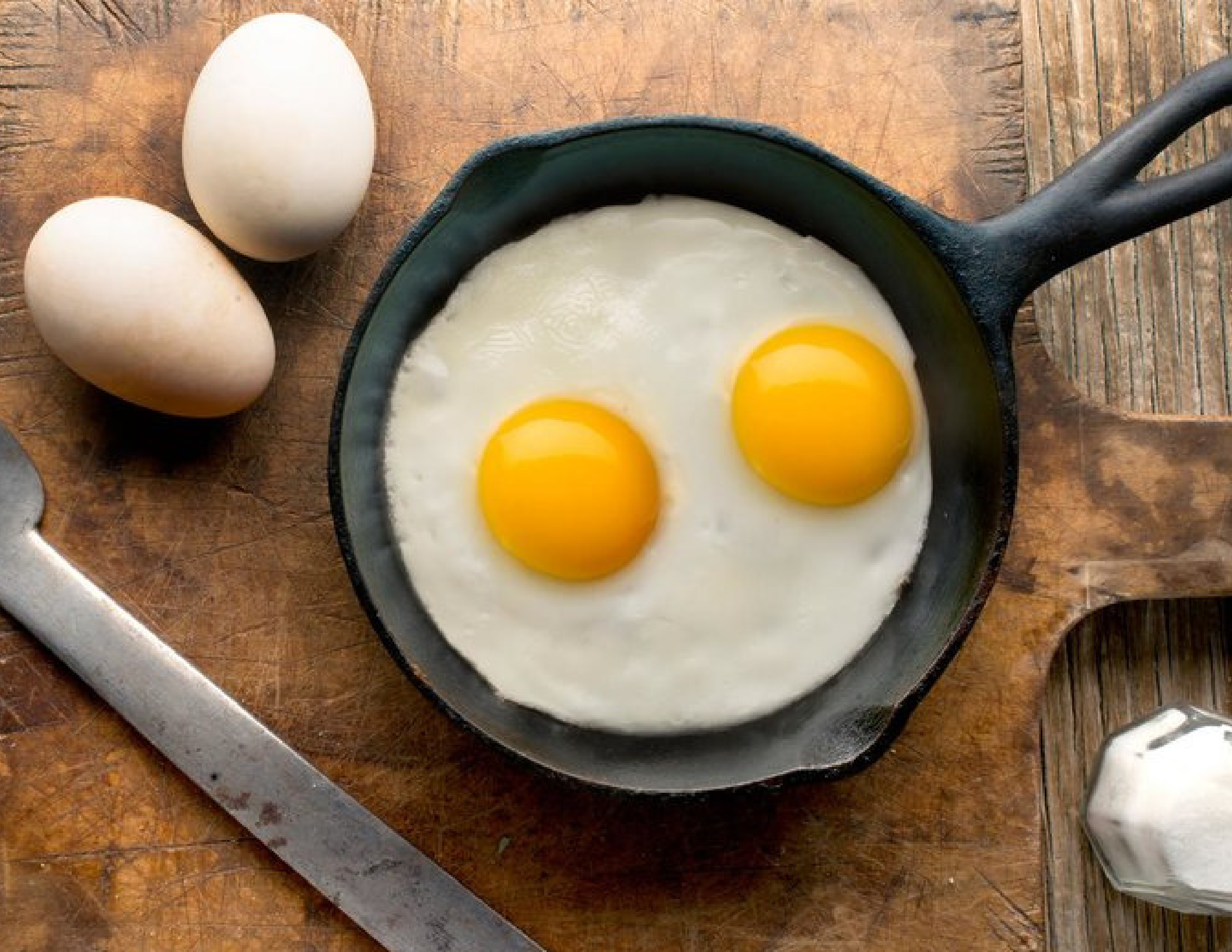




Ham

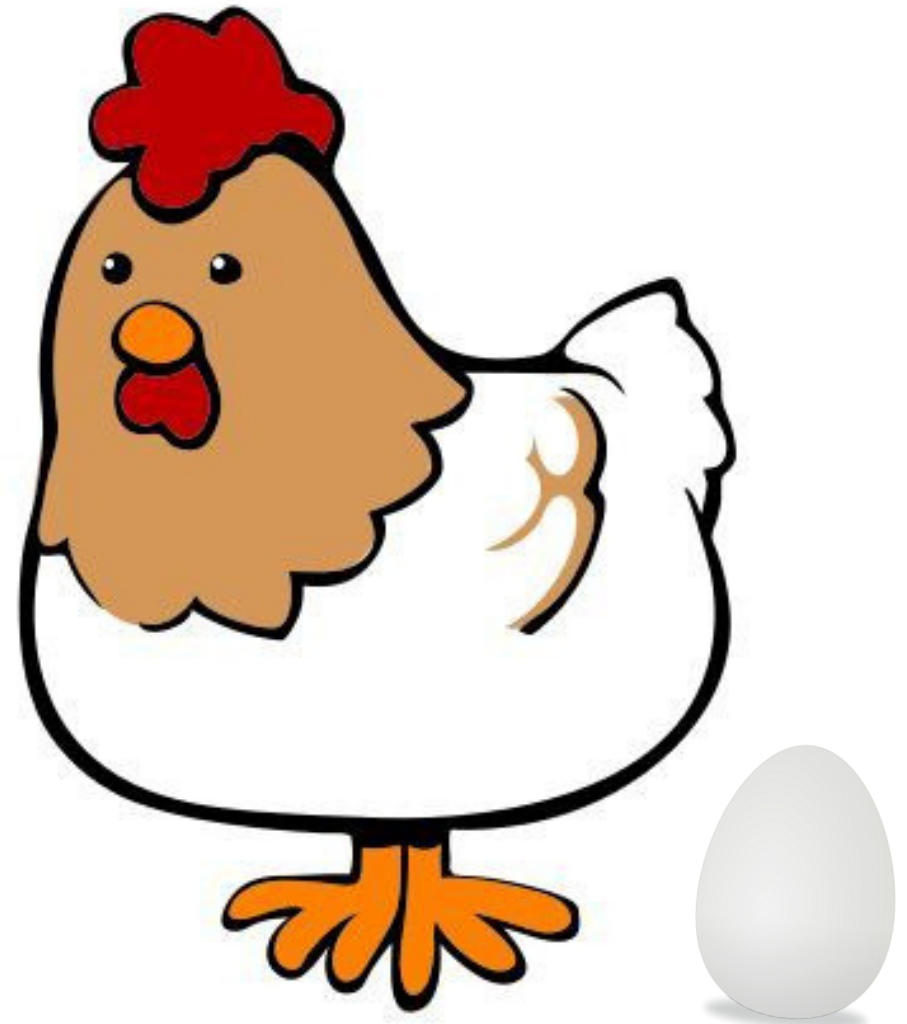
Animal Protein





Egg

Animal Protein





Black Beans

Plant Protein



bean pods on black bean plant





Nuts

Plant Protein



almonds on tree



pecan tree



Tofu

Plant Protein



soybean field



fuzzy soybean pods



Edamame

Plant Protein



soybean field



soybean pods



Hamburger

Animal Protein





Shrimp

Animal Protein

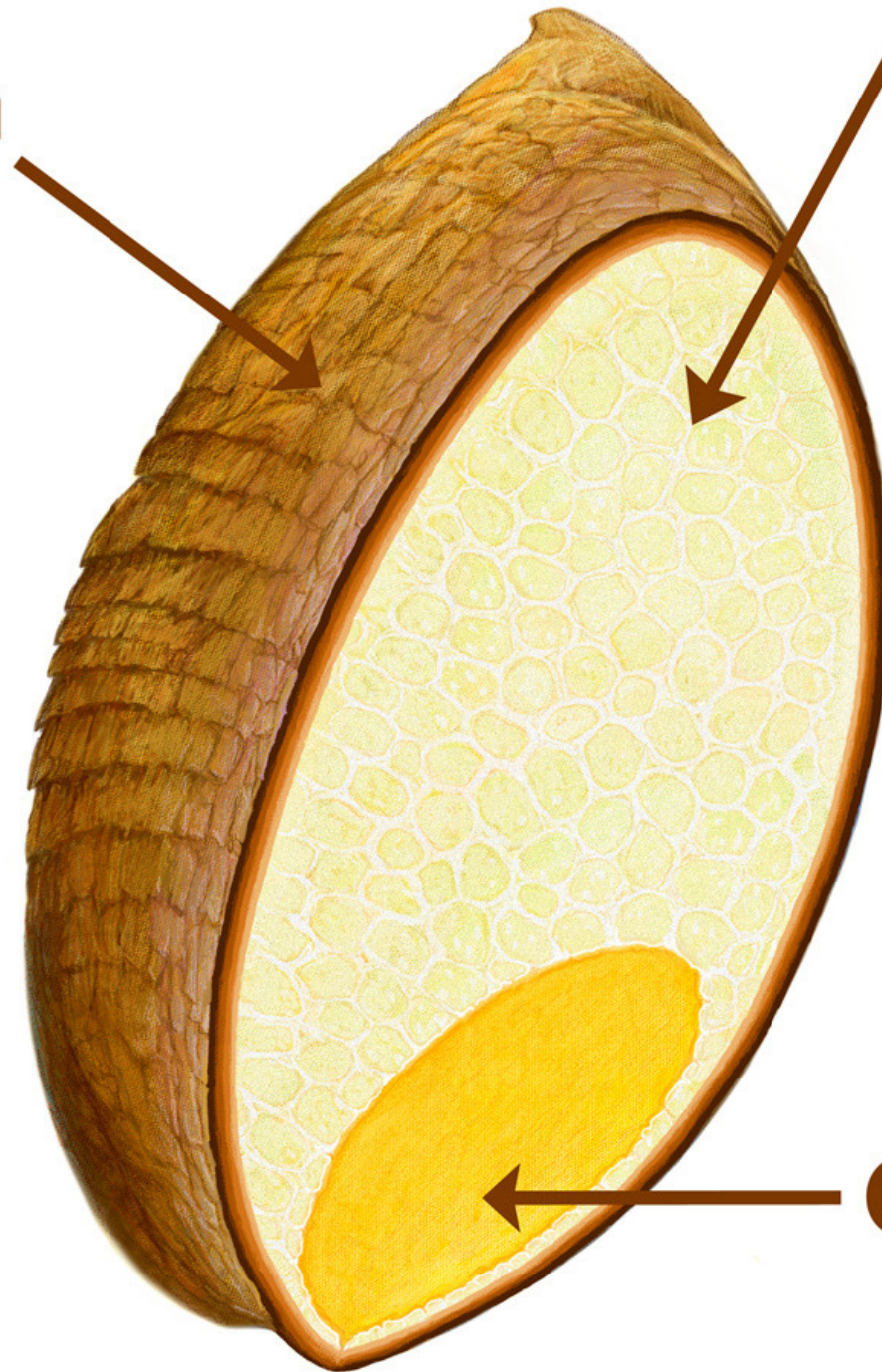






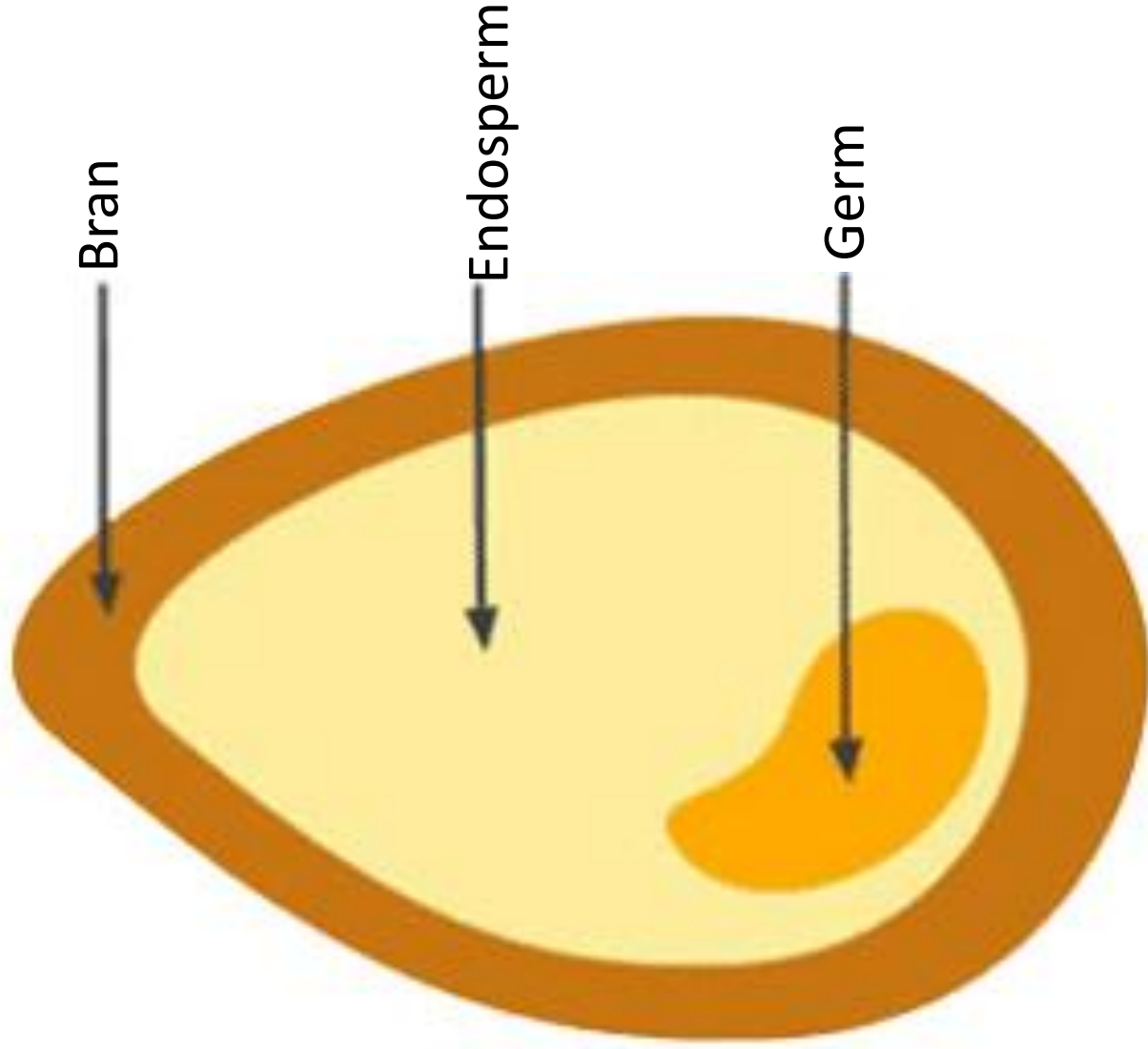
Bran

Endosperm

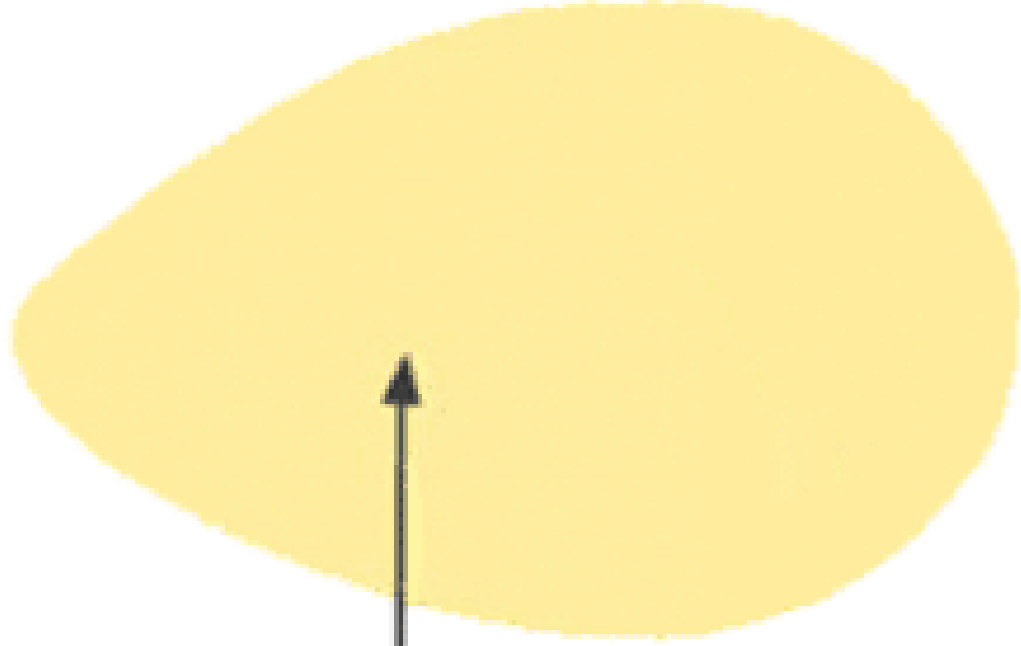


Germ

Whole Grain



Refined Grain



Endosperm





All Whole Grain
100% Whole Wheat



NET WT. 2.0 LB (907g)
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LOT: 10/15/15
EXP. DATE: 10/15/16
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SUGAR
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**All Whole Grain
100% Whole
Wheat**



Good Source
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28g
Whole Grain
Per Serving

**All Whole Grain
100% Whole
Wheat**

**Heart
Healthy**

Diets rich in whole grain foods and other plant foods
and low in total fat, saturated fat, and cholesterol
may reduce the risk of heart disease and certain cancers.

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NET WT. 16 OZ (1 LB) 454 g [®]





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(1 LB 10 OZ) 737g**



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SALTINE

Crackers



NET WT 16 OZ (1 LB) 454g

Serving Suggestion
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SALTINE Crackers



SALTINE Crackers