



## LESSON:

The Skinny on Fats

**GRADE LEVEL:** K-6

## OBJECTIVES:

- Learn about healthy and unhealthy fats
- Create a healthy, low fat snack
- Understand the health benefits of a low fat diet
- Harvest greens and plant pumpkin seeds

## KEYWORDS:

**Dietary Fat-** A nutrient food in food that is a source of energy in our diet and helps build nerve tissue and gives our food texture and flavor

**Saturated Fat-** A type of fat found in processed food and animal sources like milk, cheese and meat that can raise our bad cholesterol

**Unsaturated Fat-** A healthy fat found in plant sources and animals like fish that is good for our hearts.

**Healthy-** In good physical and mental condition

## SKILLS:

- Identifying fat sources in food
- Making comparisons between food choices
- Learning how to plant healthy options in the garden

## OVERVIEW:

There are a number of foundational building blocks to a healthy diet and healthy body. One of these necessary components is dietary fat. In addition to carbohydrates and protein, fat is one of three major sources of energy for our bodies and helps our bodies absorb other necessary vitamins and nutrients. In addition, fat plays a large role in maintaining cholesterol levels, gives our food flavor and texture, maintains body temperature, fights fatigue and help us maintain a healthy emotional well-being.

While fatty foods often get a bad reputation, they are a necessary component in a balanced diet. But not all fats created equally! Saturated fats or unhealthy fats tend to raise 'bad' cholesterol and are found mostly in foods from animals and some plants. Some of these foods include beef, pork, lard, butter, milk, cheeses and other dairy products made from whole and 2% milk. Foods from plants that contain saturated fat include coconut, coconut oil, palm oil and palm kernel oil (often called tropical oils), and cocoa butter. In general, foods that come from animals are higher in fat than foods that come from plants. Unsaturated fats or healthy fats are found mainly in fish, nuts, seeds and oils from plants. Some examples of foods that contain these fats include salmon, walnuts and liquid vegetable oils. Most fruits have zero fat and vegetables are a great low-fat option if cooked properly. It is recommended to keep total fat intake between 25 and 35 percent of calories, with most fats coming from sources such as fish, nuts and vegetable oils. Here is an easy way to scan a food label and tell if its percentage of fat calories is too high: take the calories from fat and multiply by three. If that number is greater than the total calories, it's more than 30 percent fat and not a healthy fat choice.

In this lesson, students will learn about healthy and unhealthy fat choices and how to incorporate healthy fats into their diets. In addition, students will make a healthy salad dressing, taste and plant pumpkin seeds. Seeds such as sesame, flax, sunflower, or pumpkin are a great way to incorporate healthy fats into your diet as well as protein and a number of other essential vitamins and minerals. In addition, other plant based fats like safflower, corn, and olive oil are great substitutes for saturated fats like butter and lard.

## QUESTIONS TO CONSIDER:

- What do we need to live a healthy life?
- What are some ways our body gets energy?
- Why are some foods good for our health? What makes some foods unhealthy?



## **MATERIALS:**

### **PART 1 (K-2):**

- Labels/food packages of foods with unsaturated fat
- Labels/food packages of foods with saturated fat

### **PART 1 (3-6):**

- Labels/food packages of foods with unsaturated fat
- Labels/food packages of foods with saturated fat
- 2 Buckets
- Paper coins

### **PART 2 (ALL):**

- Trowels
- Pumpkin Seeds

### **PART 3 (ALL):**

- Olive Oil
- Red onion or shallot
- Garlic
- Jar with tight fitting lid
- Apple cider vinegar
- Dijon mustard
- Salt
- Black pepper
- Measuring spoons
- Large bowl or bag

## **PART I: MEET THE FATS**

### **PROCEDURE (K-2):**

1. Ask students what similarities they have with members of their families? Write them on the board. Ask students are there any differences with people in their family? Write them on the board.
2. Explain to students that just like members of their family fats in our food have similarities and differences.
3. Ask students if they have ever heard of fats. Explain to students that fats are found in all most all the foods we eat. They also help our food taste good and are a source of energy for our bodies. Ask students to list some foods that they enjoy (responses will most likely include pizza, ice cream, McDonalds).
4. Ask students to list some things our body needs energy for. Tell students that they are going to use some of that energy and run. Explain to students if they did not have fat in their diet they wouldn't be able to do activities like run, stretch, or have energy for their brains to do homework, read, write etc. If outside, have students run around for 1 minute, if inside have them quickly run in place.
5. Just like we are different from our family so are fats. Show students a number of food packages/labels of food with unhealthy fats (Crisco, butter, processed sweets like donuts and cookies). Now, show students food packages/labels of healthy and low/good fat food (peanut butter, olive oil, tuna fish). Tell students these fats can actually help our hearts stay strong and are better for our body.
6. Now have students make some comparisons of healthy fat choices. Show kids a package for cookies and a piece of fruit and ask them which one is a healthier choice: French fries or a baked potato, pizza with pepperoni or a pizza with vegetables, etc. Tell students it's important that they learn how to make good food choices for a happy body.

### **PROCEDURE (3-6):**

1. Ask students to list what similarities they have with members of their families

on the board. Ask students what are some differences between people in their family? List them on the board. Tell students just like we are shaped in different ways, everyone is unique in their own ways just like the fat in our food! Explain to students that just like members of their family fats in our food have similarities and differences.

3. Ask students if they have ever heard of fats. Explain to students that fats are found in all most all the foods we eat, help our food taste good and are a source energy for our bodies. Have students name some foods that taste good.
4. Tell students that fats not only make our food taste good, but they give our bodies energy.
5. Tell students that they are going to use some of that energy to do some running. Explain to students if they did not have fat in their diet they wouldn't be able to do activities like run, stretch, carry a backpack, and for our brain power to do things like homework. Have students run around for 1 minute (if doing this inside students can run in place).
7. Explain to students that energy from fats are like coins we put in a piggybank. Ask students what they think will happen if we keep putting a lot of energy into our bodies and never 'spend' it (by exercising)?
8. Have students break up into two teams for our Piggy Bank relay. Each student will get one food label to read. Each gram of fat on the label represents 1 coin (27g=27 coins). One at a time, the students must read their label (make sure they are also looking at the serving size) and calculate how many grams of fat are in their food. Next, students will deposit their coins (fat) one at a time by running down to their piggybanks and dropping them in. Once they have put their coin in the piggybank they will run back and tag their teammate. The student will then pull a card from a stack of physical activities held by the 'banker' that explains how they can spend their coins. When the banker yells "spend" all the students must stop by doing the action on the physical activity cards (i.e. jumping jacks, running in place, walking for a longer time span than running, or pretending to play a sport like soccer or basketball). Once they complete their physical activity they can empty their piggybanks by taking out the coins and running them back to the starting line.

9. Once all students have participated in the relay, ask students to recall what would have happened if they didn't spend their coins. Tell students that if they do not exercise, they would have too much fat in their piggybanks and are at risk of becoming unhealthy.

10. Tell students that they can also make smarter choices when picking foods to eat. Ask students to compare some of the labels used in the relay? Which foods are healthier or better choices?

11. Hold up some pictures of foods with choices and ask students to pick the healthier choice. Examples can be between French fries vs. a baked potato, pizza with pepperoni vs. pizza with vegetables, and salad with ranch dressing vs. salad with a lighter oil dressing. Tell students they can have a healthy diet by remembering to make better choices.

## PART III: TERRIFICALLY TASTY FATS

### PROCEDURE (K-2):



1. Show students a bottle of olive oil. Ask if they know what it is. Tell students today we are going to make a salad dressing with a heart healthy fat- olive oil.

2. Explain to students that they can make a healthy dressing at home with their family using olive oil or sunflower oil which comes from another healthy garden seed- sunflower seeds! 'Safflower' oil looks and tastes similar to sunflower oil, but grows in other regions around the world, not in Michigan.

2. Have students break up into two separate groups: dressing group and salad group. Salad group should wash the greens and divide them into enough bowls for every student. Dressing group should combine all the ingredients in a jar with a tight fitting lid. Once all ingredients are in the jar have each student mix the dressing by gently shaking the jar. Remind students if it wasn't for fats we wouldn't have the energy to shake our dressing up.

3. Once mixed, drizzle over greens, add pumpkin or sesame seeds and enjoy!

4. (for older students) Tell students they are now going to compare dressing labels. Give students copies of a number of salad dressing labels. Which ones have the most fat? Which one is the healthiest choice? By reading labels we can make choice that benefit our health.

### Terrifically Tasty Olive Oil Vinaigrette

- 2 cloves garlic
- 1/2 cup vinegar (such as white or apple cider)
- 1 1/2 teaspoons Dijon mustard
- 3/4 teaspoon salt
- 3/4 teaspoon freshly ground black pepper
- 1 1/2 cups extra-virgin olive oil
- 1/4 cup finely chopped shallots or red onion



#### Preparation:

Mix all ingredients together and drizzle over greens. For younger students pre-chop onion or shallot and garlic. Sprinkle salad with roasted pumpkin seeds for an extra healthy boost of fat.



Keep Growing Detroit is cultivating a food sovereign city where the majority of fruits and vegetables consumed are grown by Detroiters within the city's limits. For more information visit [keepgrowingdetroit.org](http://keepgrowingdetroit.org) or contact Keep Growing Detroit at (313) 757-2635 or [info@keepgrowingdetroit.org](mailto:info@keepgrowingdetroit.org).