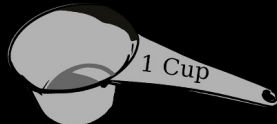


Thanks for previewing!

FAT and Sugar Experiment



DOCS FOR PRINT AND **ON GOOGLE DRIVE!**

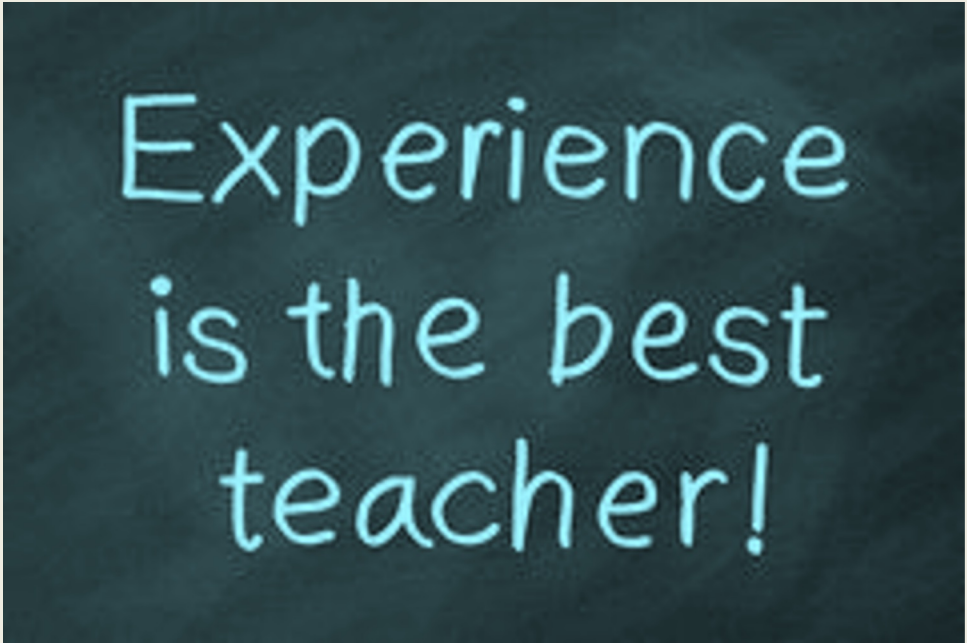
Health Education Today

“Fat & Sugar Experiment”
Lesson for
Middle +High
School



1. This Program's Creator is a Qualified Teacher

◆ I am a **National Board Certified Teacher** with a **Master's of Education Degree** and I have many years **of experience** teaching Health.



Experience
is the best
teacher!

2. The Program Meets Educational Health Standards:

◆ It meets **5 of 20** National Common Core Standards.

(For Technical Subjects 9/10 Grade level)



It also meets **11**
State Health
Standards

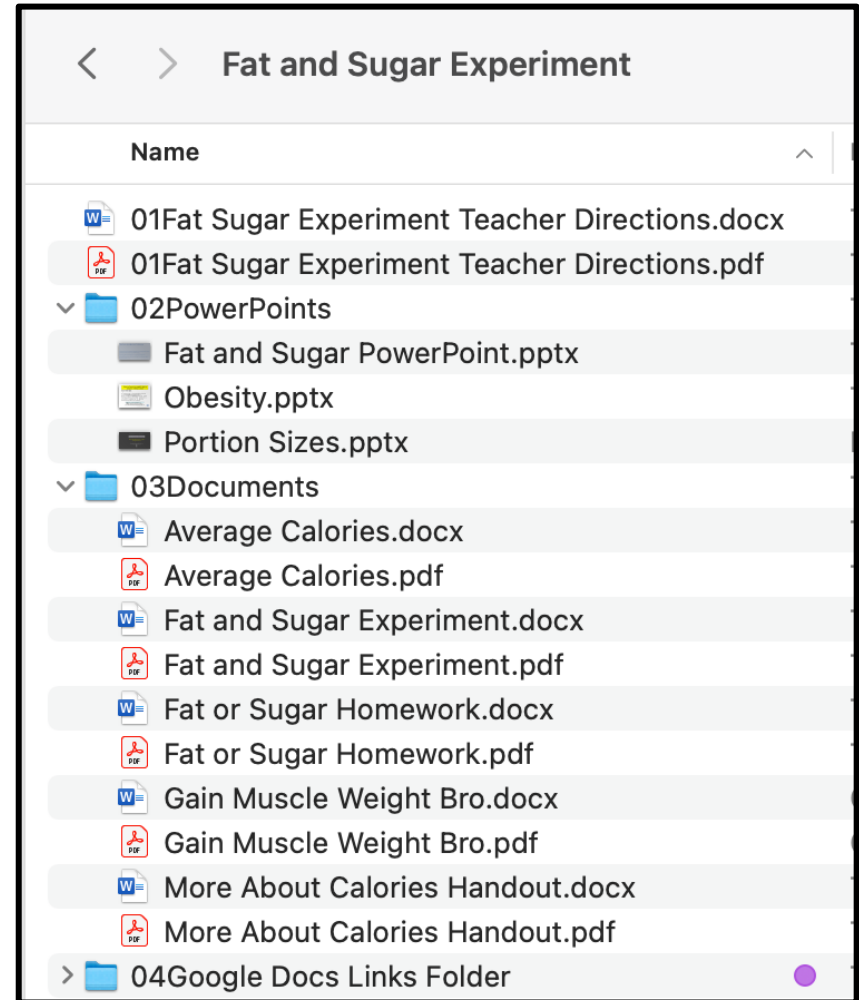
◆ It meets **all 8 of 8** Health Standards
detailed “Performance Indicators.”



3. Here are some examples from this unit:

Fat and Sugar Experiment Lesson

-1 to 3 Days -



Docs in this Unit are *Editable* in Word and PowerPoint!

4. Standards are at the Beginning of Each Lesson:

Pre-Lesson Day 1: Obesity and Healthy Weight

[Return to Table of Contents](#)

**Washington
State High
School
Standards**

WA State 8th Grade Standards Met:

- Analyze interrelationships of personal dimensions of health. H1.W1.8
- Conduct a personal caloric needs assessment, based on age, gender, activity levels, and specific health requirements, to develop an eating plan. H7.N4.8
- Assess personal health behaviors that reduce or prevent health risks. H7.W2.8b
- Evaluate a variety of eating plans and determine potential short-term and long-term consequences based on nutritional intake. H1.N5.8

My State Standards Met:

**Your
Own State
Standards**

**Common
Core
Standards**

WA State High School Standards Met:

Analyze personal dimensions of health and design a plan to balance health. H1.W1.HS
Predict impact of consuming adequate or inadequate amounts of nutrients. H1.N1.HS
Cite evidence from Nutrition Facts labels useful for making informed and healthy choices. H5.N3.HS
Analyze trends in portion size as compared to recommended serving sizes. H3.N3.HS
Demonstrate how to balance caloric intake with caloric expenditure to maintain, gain, or reduce weight in a healthy manner. H7.N4.HS
Evaluate resources for accessing valid and reliable information, products, and services for healthy eating. H3.N1.HS

**National
Health
Standards**

National Standards Met: 1.12.1, 1.12.2, 1.12.3, 1.12.4, 1.12.7, 1.12.8, 1.12.9, 2.12.1, 2.12.2, 2.12.3, 2.12.4, 2.12.5, 2.12.6, 2.12.7, 2.12.8, 2.12.9, 2.12.10, 3.12.1, 3.12.2, 3.12.3, 3.12.4, 3.12.5, 5.12.1, 5.12.2, 5.12.3, 5.12.4, 5.12.5, 5.12.6, 5.12.7, 7.12.1, 7.12.2, 7.12.3

Common Core Standards Met: Reading 1 / Writing 4

Materials Needed:

PowerPoint	-Fat and Sugar PowerPoint -Obesity PowerPoint -Portion Sizes PowerPoint -"Gaining Muscle Brochure"	-See PowerPoints Folder and online at link below -See PowerPoints Folder -See PowerPoints Folder -Print 50
Printed Materials		
Other Materials	Calculators Scale, and height chart copied onto your wall or paper.	

**Materials
Needed**

**Content
Learning
Target**

Optional:

Video	See in directions below.	See below for more information
Learning Target	Content: I will learn how many calories I should have.	Behavioral: I will try to follow how many calories I should have.

**Behavioral
Learning
Target**

**Optional:
Lesson
Assessment**

Exit Task	-Fill out "Success Criteria Sheet." -Walk around and make sure everyone's calorie formula is correct!
Assessment	- "Fat and Sugar Worksheet" in tomorrow's lesson will be turned in and graded.

5. PowerPoints Lead You Through the Lessons...

Step-By-Step
Teacher
Directions
follow
PowerPoint
slides to
make
teaching
this unit
easy!

Day 3: Fat and Sugar Experiment!

WA State 8th Grade Standards Met:

Analyze interrelationships of personal dimensions of health.

H1.W1.8

-Conduct a personal caloric needs assessment, based on age, gender, activity levels, and specific health requirements, to develop an eating plan. H7.N4.8

-Assess personal health behaviors that reduce or prevent health risks. H7.W2.8b

-Evaluate a variety of eating plans and determine potential short-term and long-term consequences based on nutritional intake. H1.N5.8

WA State High School Standards Met:

Analyze personal dimensions of health and design a plan to balance health. H1.W1.HS

Predict impact of consuming adequate or inadequate amounts of nutrients. H1.N1.HS

Cite evidence from Nutrition Facts labels useful for making informed and healthy choices. H5.N3.HS

Analyze trends in portion size as compared to recommended serving sizes. H3.N3.HS

Demonstrate how to balance caloric intake with caloric expenditure to maintain, gain, or reduce weight in a healthy manner. H7.N4.HS

Evaluate resources for accessing valid and reliable information, products, and services for healthy eating. H3.N1.HS

Analyze and describe the relationship between nutritional choices, physical activity, and chronic diseases. H1.N5.HS

Implement strategies to achieve a personal health goal. H6.W7.HS

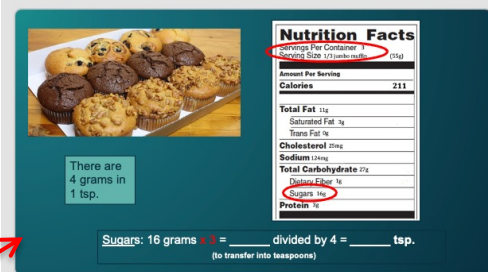
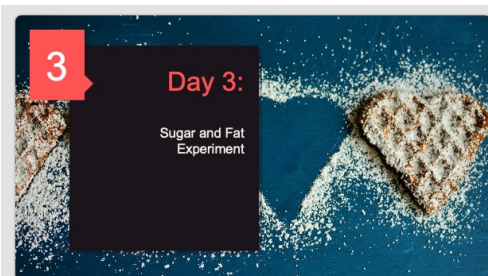
PowerPoint	-Fat and Sugar PowerPoint
Printed Materials	-Fat and Sugar Experiment Worksheet
	-Optional: "Fat or Sugar Homework"
	If you don't have the real empty containers, you will need to print one of each of the products from the PowerPoint slides (Sprite through chocolate milk.)
Learning Target	Content: I will learn the dangers of fat and sugar!

Day of Experiment: Follow PowerPoint Slides:

65+66. **TITLE SLIDE** and **SUGAR AND CRISCO**: Place markers for you. You could put the second "Crisco photo" slide up as students come in if you want.

67. **FORMULAR FOR SUGAR**: Have your students figure out how many sugar calories and sugar grams they should each eat per day so it gives them a point of reference when they see how many sugar grams are in the food products today.

68. **RANK SUGAR IN DRINKS**: I actually had the containers in my room to physically walk around and hold up, but this slide will work too!



6.

Here are the resource presentations:



Fat & Sugar Lesson
Copyright © Health Education Today

1 Day 1:
Obesity and Calories

•Obesity



Why are people getting more and more overweight?

The U.S. adult obesity rate stands at **69.4%**. The national adult obesity rate has increased by 25.9% since 2005.

Rates of childhood obesity are increasing with the latest data showing that **19.3%** of U.S. young people, ages 2 to 19, have obesity. In the mid-1970s, **6.3%** of young people had obesity.

Being overweight or having obesity as a young person puts them at higher risk for health risks as an adult. Furthermore, children are exhibiting earlier onset of what used to be considered adult conditions, including hypertension and high cholesterol.¹¹

Pair Share

Discuss with your partner:

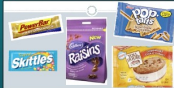
Why are people getting more and more overweight?



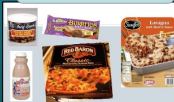
Rank these drinks in order of lowest to highest in teaspoons of **SUGAR**:
(best for you to worst)



Rank these food items in order of healthiest to least healthy in **SUGAR**:
(best for you to worst)



Rank these drinks in order of healthiest to least healthy in **FAT**:
(best for you to worst)



Sugar in 1 Can of Sprite



Nutrition Facts	
Serving Size 1 can Serving Per Container 1	
Calories 140	
Total Fat 0g	
Total Carbohydrate 36g	
Sugars 36g	

Sugar in 1 Can of Apple Juice



Nutrition Facts	
Serving Size 1 can Serving Per Container 1	
Calories 170	
Total Fat 0g	
Total Carbohydrate 36g	
Sugars 36g	

Sugar in 1 Can of Arizona Green Tea



Nutrition Facts	
Serving Size 18 fl. oz. Serving Per Container 3	
Calories 120	
Total Fat 0g	
Total Carbohydrate 30g	
Sugars 30g	

Remember: All carbs turn into glucose but the faster they enter the blood the worse it is and the faster they spike our blood glucose levels.

Try whole wheat not white!

Look for the word **"whole."**

speed it up:
processed foods, chopped, sliced, mashed, juiced

slow it down:
fats, proteins, fiber, whole fruits and veggies

Sugars:

maltese (beer)
sucrose (table sugar)
honey
lactose (milk sugar)
fructose (fruit sugar)

Sugar and saturated fat conclusion

You don't have to give up all sugar or all fat.

It's all about choices and reading your food labels to know what you're eating. See next slide food CHOICES...



Sweet Tooth Choices:



Calories: 90
Total Fat: 2



Calories: 470
Total Fat: 22

160 slides in 3 presentations!

Stay Young at Heart Portion Distortion

CHEESEBURGER

20 Years Ago

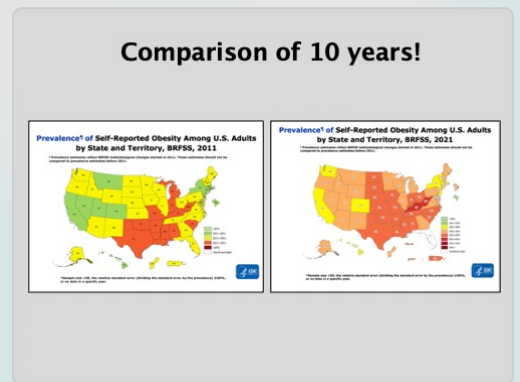
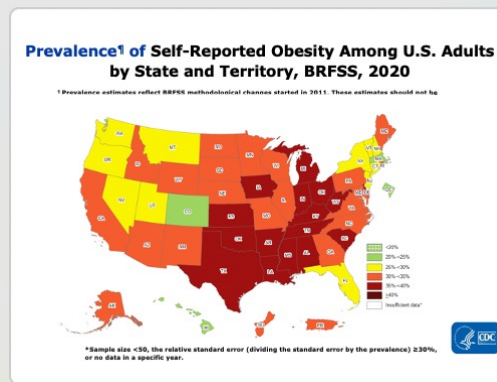


333 calories

Today



? How many calories are in today's cheeseburger?



Docs and PowerPoints ON GOOGLE DRIVE!



1

Day 1 Pre-Lesson:

Obesity and Calories



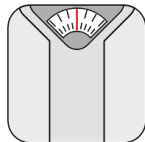
7.

Here are some Examples From the Lessons:

Day 1:

Why are people getting more and more overweight?

The U.S. adult obesity rate stands at **42.4%**. The national adult obesity rate has increased by 26 % since 2008.



Rates of childhood obesity are increasing with the latest data showing that **19.3%** of U.S. young people, ages 2 to 19, have obesity. In the mid-1970s, **5.5%** of young people had obesity.

Being overweight or having obesity as a young person puts them at higher risk for health risks as an adult. Furthermore, children are exhibiting earlier onset of what used to be considered adult conditions, including hypertension and high cholesterol.¹

CALORIES YOU SHOULD EAT PER DAY:

1) Estimated BMR: current wt. _____
x 10 (boys x 11)
= Box 1

2) Activity Level:
x .3 if light
x .5 if moderately active
x .7 if very active (sports)
x _____ (choose .3, .5, or .7)
= Box 2

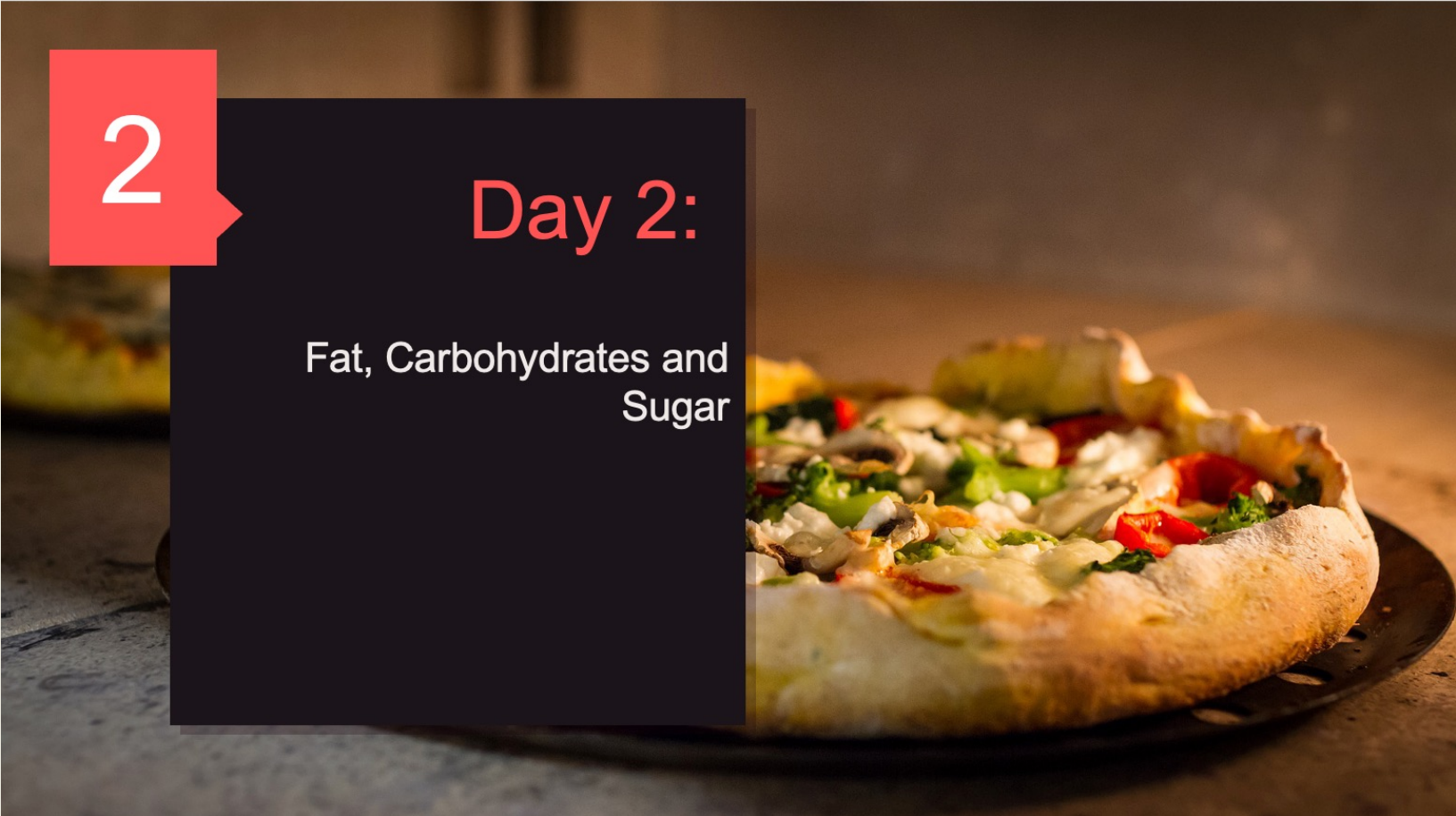
3) Take Box 1 _____
+ Box 2 _____
= _____

4) Take _____
+ _____
= _____

6) Optional:
or if you want to lose w _____
or if you want to gain w _____
= _____

Fill this in for your own weight and activity level

-Day 1 is about the "obesity" epidemic and how to maintain a "healthy weight." A PowerPoint presentation walks you through why so many people are overweight, poor nutrition habits, family genetics, what a calorie is, false diet advertising, healthy weight, and students figuring how many calories THEY should have each day to maintain their weight.



2

Day 2:

Fat, Carbohydrates and
Sugar

8. Here are some Examples From the Lessons:

Day 2:



Remember: All carbs turn into glucose but the faster they enter the blood the worse it is and the faster they spike our blood glucose levels.

Try whole wheat not white!
Look for the word **"whole."**

speed it up:
processed foods, chopped, sliced, mashed, juiced

slow it down:
fats, proteins, fiber, whole fruits and veggies



Foods high in sugar are: pop, flavored drinks, energy drinks, juice, sweet desserts, cookies, candy, breakfast cereal

WARNING: sugar is sometimes hidden!

Check your food labels for these words...

Fructose

Honey

Lactose

Corn syrup

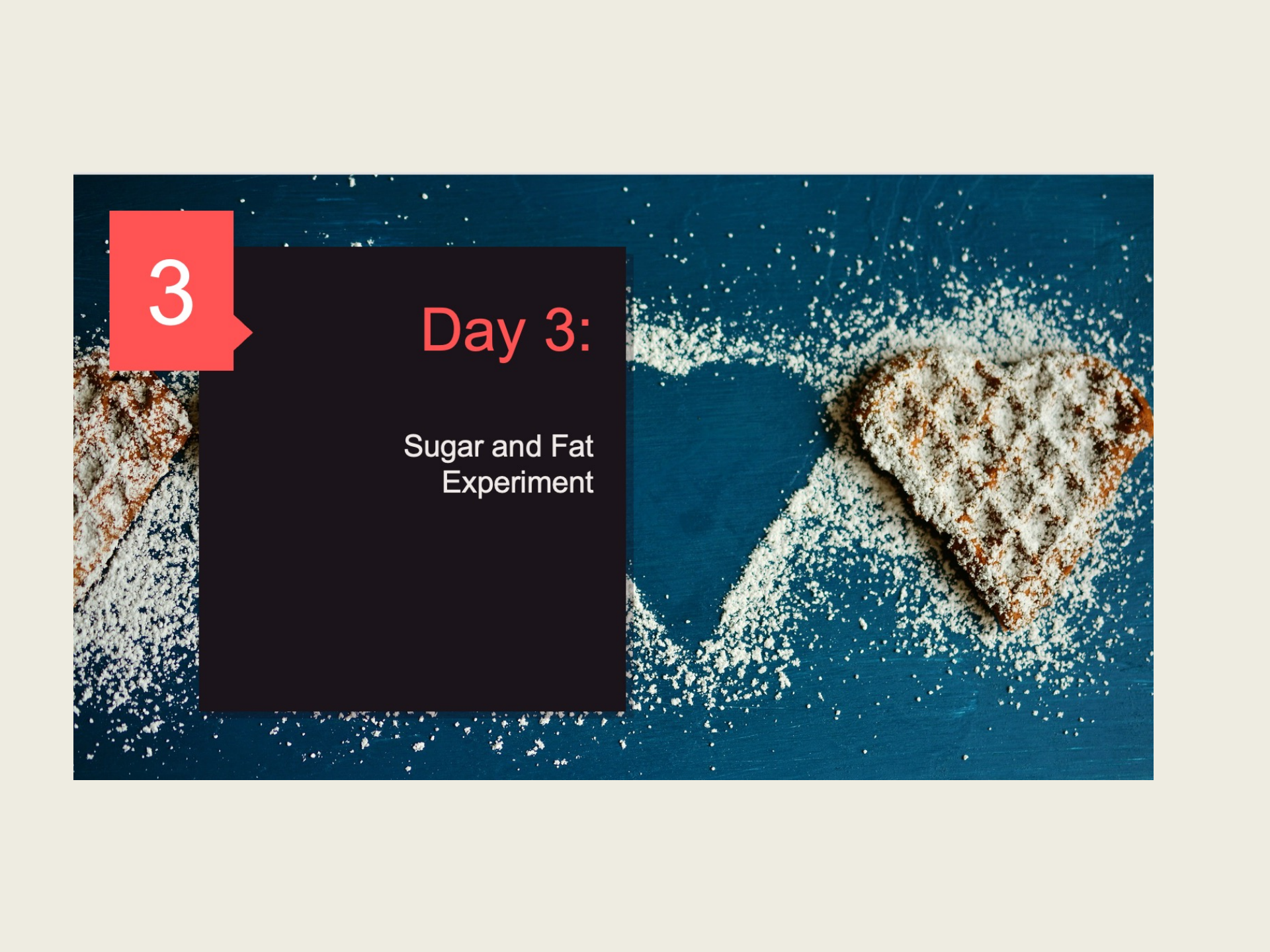
Sucrose

Molasses

Maltose

Galactose

Day 2 is learning about carbohydrates and sugars. Students learn about "good" carbs like complex whole plant foods, and whole grains. Next they compare whole grains with the simple carbohydrate sugar. Students calculate how much sugar they are allowed to have per day according to their total calorie intake, and discuss Diabetes. There are optional videos as well.

The background of the slide is a photograph of a blue surface, possibly a tablecloth, covered with a fine layer of white powder. A heart shape is drawn in the powder on the right side of the image. On the left, there is a red speech bubble containing the number 3.

3

Day 3:

Sugar and Fat
Experiment

9. Here are some Examples From the Lessons:

Day 3:

Rank these drinks in order of lowest to highest in teaspoons of SUGAR:
(best for you to worst)



Rank these drinks in order of healthiest to least healthy in FAT:
(best for you to worst)



Day 3: Experiment Day! Students guess how healthy products are from pictures on the PowerPoint show, then they will pair up, be given a product to measure the sugar or Crisco in baggies, then they walk around the room and fill in the correct teaspoons in everyone's product, and then they will correct their answers and make some conclusions.



Name: _____ Per: _____ Date: _____

Guess the Lowest Amount of Sugar and Saturated Fat in Products

There are approximately 4 grams in 1 teaspoon

SUGAR IN DRINKS: (formula: sugar grams x how many servings per container, divided by 4 = ____ tsp.)

Guess from lowest sugar to highest:	# of tsp.:	Write in the correct order:
1. (best)		1. (best)
2.		2.
3.		3.
4.		4.
5. (worst)		5. (worst)

How many did you get right?????: ____ / 5

9.

Print and Use the 15 Food Labels Included:

Sugar in 1 Can of Sprite



Nutrition Facts	
Serving Size:	1 can
Servings Per Container:	1
Calories	140
Total Fat	0g
Total Carbohydrate	38g
Sugars	38g

Sugar in 1 Can of Monster



Nutrition Facts	
Serving Size:	8 fl Oz.
Servings Per Container:	3
Calories	100
Total Fat	0g
Total Carbohydrate	27g
Sugars	27g

Fat in 1 Beef and Bean Burrito



Nutrition Facts	
Serving Size:	1
Servings Per Container:	1
Calories	380
Total Fat	18g
Sat Fat	6g

Fat in 2 Cups (servings) of Lasagna



Nutrition Facts	
Serving Size:	1
Servings Per Container:	6
Calories	400
Total Fat	25g
Sat Fat	11

only figure for 2
servings so sat
fat x 2

10. This Program is all About the Students...

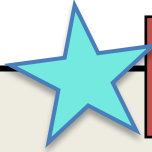
◆ The program is classroom and “**kid-tested**,” teacher-approved, and full of real student examples and responses.

◆ It promotes **high student engagement and interaction!**

◆ This lesson **challenges and touches the lives and wellness of teens!**



11. Buy it Today, Teach it Tomorrow!



Here is what makes this program unique!!

- ◆ This program features highly organized step-by-step teacher directions follow daily PowerPoints, and the directions tell you exactly to say!!
- ◆ **Documents and PowerPoints are editable** and docs are included in both Word and PDF formats.
- ◆ PowerPoints are full of what's trending, photos, and video links teens will appreciate.





About the Author:

- ◆ I've been a certified K-12 Physical Education and Language Arts teacher for over 30 years (19 of those years also include my Health certification). Over my teaching career I've taught all grade levels and a variety of subjects, including: Junior High P.E.; 8th Grade Reading; Elementary P.E.; 9th Grade English; 9th Grade P.E.; High School Aerobics; and 9th Grade Health. I have my Master's of Education Degree in Instructional Technology and I received my National Board Certification in Health.
- ◆ My hobbies include my family, photography, birding, reading, gardening, sewing, hiking, camping, and travelling.

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Works Cited:

Owl and Yosemite Photos by me.

WA Standards From: <http://www.k12.wa.us/healthfitness/Standards.aspx>

NYC Standards From:

<http://www.p12.nysed.gov/ssss/schoolhealth/schoolhealtheducation/healthPEFACSLearningStandards.pdf>

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