

# Let's Get Healthy! Resources for Teachers

[www.letsgethealthy.org/teachers](http://www.letsgethealthy.org/teachers)

## Overview

*Let's Get Healthy!* is an education and research program that hosts school-based health fairs. Students learn about their health and get immediate, tailored feedback about their own results. The anonymous summary data is then available for student projects, needs assessments and school grants.

We offer a **teacher guide** and **teacher-developed lessons** and activities that reinforce what students learn at the fair. Our research shows that *Let's Get Healthy!*'s impact is greatest for students when teachers bookend the content in the classroom. We also find that students who like *Let's Get Healthy!* most are the ones who previously reported being uninterested in science.

## Search our online lessons and activities by

### Grade

- Elementary (7)
- Middle School (19)
- High School (12)

### Key Topic Areas of Lessons

- Fair preparation (4)
- Healthy choices (15)
- Research Methods (6)
- Epigenetics and Development (6)
- Using Data (10)
- Advocacy (6)

### Subject

- Language Arts (10)
- Math and Statistics (12)
- Social Studies (13)
- Science (15)
- Health and Physical Education (15)
- Technology (3)



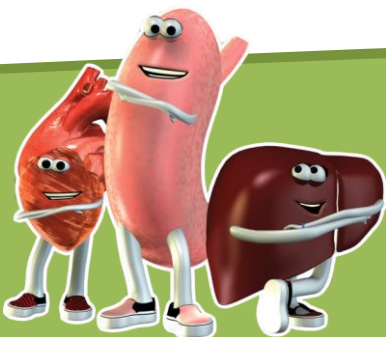
## These lessons were created by teachers, for teachers.

We have a total of 20 lessons and activities available. The number in parentheses tells how many lessons are available in that category. Many of our lessons span several grades, subjects and cover multiple topic areas; therefore, they are described below under their primary topic area.

## Other resources

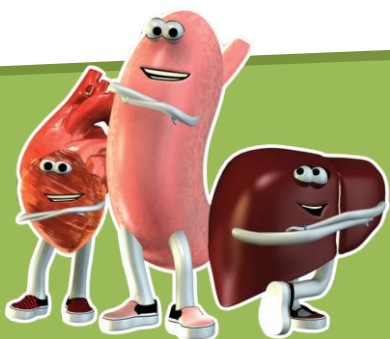
Our educational games and other research materials are available for classroom use on our website. Visit the student page at <http://www.letsgethealthy.org/students/games/>

Development of these lessons was funded by the National Institutes of Health (NIH) through two Science Education Partnership Award grants (<http://nihsepa.org/>), an NIH grant to the Interdisciplinary Center for Epigenetics, Science and Society (5P20HG00551), as well as a pilot project grant from the OHSU Bob and Charlee Moore Institute for Nutrition and Wellness.



## Fair Preparation, Research Methods, and Using Data Lessons

<p><b>Healthy Habits- Pre-activity for <i>Let's Get Healthy!</i> fair</b> (20-40 min) – This pre-fair activity prepares students for the <i>Let's Get Healthy!</i> fair so they can gain the maximum benefit from their participation in the fair and know what to expect. Includes powerpoint for students.</p>		
<p><b>Data Analysis and Action Plan – That's not just a number, that's me!</b> (3 days) – Small groups briefly research a health problem to understand causes, measurement and risk. Each group then analyzes related data from their <i>Let's Get Healthy!</i> fair and identifies areas to be flagged for risk. Groups list variables that affect health outcomes and present their findings.</p>		
<p><b>Science Inquiry Using Humans and Ethical Considerations</b> (Three 15-25 min lessons) – Students design a hypothetical experiment and discuss the ethical implications of each. Working in a small groups, students will chose one experiment and design an Institutional Review Board (IRB) to further explore and resolve ethical implications.</p>		
<p><b>Sharks vs Ice Cream: Exploring Correlation/Cause and Effect</b> – (45 min) – Is there a connection between shark attacks and ice cream sales? Knowing and recording information is important, but making correct conclusions is the key to meaningful knowledge and accurate understanding. Students will identify graphs depicting comparative strengths, analyze data, and determine that correlations don't mean cause and effect.</p>		
<p><b>Four Statistics Exercises using Adolescent Body Mass Index (BMI) Data</b> (1-2 class periods) – Students use data collected at <i>Let's Get Healthy!</i> school events to 1) learn the differences between observational studies and experiments; 2) apply descriptive statistics to data; 3) construct and interpret confidence intervals; and 4) perform statistical hypothesis testing with authentic data.</p>		
<p><b>Changes in American Mortality</b> (90 min) – Students use selected mortality statistics from 1900-2010 to see how the major causes of death in the United States have changed since the early 20th century. Students read data tables and extract specific information, chart chronological information on a line graph, and interpret that data in a historical context.</p>		
<p><b>Interpreting Maps - An Exploration of Health Trends in the United States</b> (90 minutes) – Students will use their powers of observation to analyze data from the Center of Disease Control and Prevention (CDC). The data will be in the form of maps and tables. Students learn to interpret maps to discover the rate of change of obesity, diabetes and other chronic diseases. They can play the role of detective to detect similar trends among health issues.</p>		
<p><b>Graph Literacy</b> (3 stand-alone lessons; each one class period) –Three stand-alone lessons on 1) using graphs to infer relationships between variables; 2) common mistakes and intentional distortions in graphs; and 3) interpreting a graph and writing a narrative summary. The lessons are intended to help students analyze and explain graphs and are not intended to help students make their own graphs.</p>		

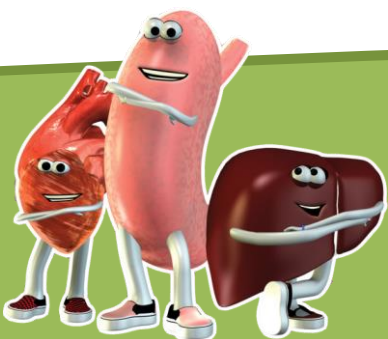


## Healthy Choices Lessons

<p><b>Who did it? John Doe vs. Coronary Heart Disease</b> (90 minutes) – This role play lesson begins with the premise that John Doe died from a heart attack brought on by coronary heart disease. Who and/or what was responsible for this heart attack? Students evaluate the major risk factors for heart disease as they try to determine who or what was responsible for John Doe’s heart attack in a courtroom forum.</p>	<p>Sci SSt ELA Hlth</p>	<p>EI MS HS</p>
<p><b>Traffic Light Meal and Activity Plans – Red, Yellow and Green Choices</b> (45 minutes) – Students can use these quick and easy scoring guides to estimate their diet and physical activity before or after the <i>Let’s Get Healthy!</i> fair. Serves as an extension activity to get students thinking about their health and answering survey questions.</p>	<p>Hlth PE</p>	<p>EI MS HS</p>
<p><b>Physical activity – How healthy are you?</b> (Unit of five lessons, each 45 minutes) – Students will analyze their own physical activity level, present their data, and compare it to the suggested activity level for adolescents. This unit can be used to help students understand their physical education or health, or in math, statistics or science classes to help students understand how to collect data and administer surveys.</p>	<p>Sci Hlth PE Math Stat</p>	<p>EI MS HS</p>
<p><b>Impulsive Choices – How is my health and how do I improve it?</b> (2 class periods; Day 1: 10 min; Day 2: 45-55 min) –This lesson helps students understand their own impulsivity so that they can identify tempting choices and take steps make good choices for their future and not just their present. ile impulsive behavior can persist into adulthood, it can also be changed over time -- which is why helping students to identify it is so important.</p>	<p>Sci Hlth</p>	<p>MS HS</p>

## Advocacy Lessons

<p><b>Applying “Project Citizen” to Let’s Get Healthy!</b> – (varies with level and resolution) – Project Citizen is a curriculum where students learn how to influence public policy by studying problems in their own community. It is designed to promote responsible participation in local and state government. In this lesson, students will be able to use <i>Let’s Get Healthy!</i> data and apply it with the Project Citizen framework. The work culminates with a class portfolio that can be part of a state and national showcase. Students learn about local government while honing reading, research, writing, speaking, and critical analysis skills.</p>	<p>Sci SSt ELA PE Hlth Math Tech</p>	<p>MS HS</p>
<p><b>Student Advocacy for Healthy Schools</b> – (5 classes) – Students learn how health factors, such as sleep and diet, affect their ability to learn. Students compare general information with specific data from their age group to assess the degree to which their school supports student health. Using this information, students consider changes to school policy and determine how those changes would affect various stakeholders in an educational community. The unit concludes with a simulated public meeting to debate each issue.</p>	<p>Sci SSt ELA Hlth</p>	<p>MS HS</p>



## Epigenetics and Cell Development Lessons

<p><b>Dutch Hunger Winter</b> (45-55 min) – The Dutch Hunger Winter is a famine that took place in the Netherlands at the end of World War II. Students learn about the immediate and long-term effects of the famine. Students will read and create an epigenetic pedigree chart. Students will learn how healthy and unhealthy choices can affect the epigenome.</p>	<p>Sci SSt ELA Hlth</p>	<p>MS HS</p>
<p><b>Diverging Twins</b> (45 min) – Introduce students to epigenetics and how an individual’s genome responds to his or her environment. Identical twins are genetic carbon copies, meaning their DNA sequencing is the same. Yet physically they become increasingly different over time. Why is this so?</p>	<p>Sci Hlth</p>	<p>MS HS</p>
<p><b>Cell Development Pathways</b> (30 min) – Introduce how epigenetics leads to specialized cells. As a class, students role-play as individual developing cells in an embryo to understand how cells in a human body have the same DNA, yet through epigenetics become specialized and take on a unique profile.</p>	<p>Sci Hlth</p>	<p>MS</p>
<p><b>Epigenetics IQ</b> (15 min) – Students test their knowledge and understanding of epigenetics by answering 18 true and false questions. All answers are true, prompting discussion of this new field of science.</p>	<p>Sci Hlth</p>	<p>MS HS</p>
<p><b>Your Baby’s Genome, Epigenome and More</b> (2-3 class periods) – Students learn how genes are passed down from parents to child; how genes determine traits, and how environmental factors affect the expression of the genome. This lesson begins with the Desert Vista High School Genotype to Phenotype Simulation Booklet and, once the students have selected their baby’s genome, they will add a layer of epigenetics onto their baby’s DNA and draw the resulting adult. Includes ELA extension activities.</p>	<p>Sci ELA</p>	<p>MS</p>
<p><b>Trans-generational Nutrition</b> (1 or 2 class periods) – Did you know that what you’re eating not only affects your kids, but your grandkids? Students play a modified game of go-fish to learn how our history affects our future. Students conduct interviews of their family members to begin investigating the effects of nutrition within their own family and write a letter to their future children to reflect on their lifestyle choices today.</p>	<p>Sci Hlth SSt ELA</p>	<p>MS</p>

