

Overview

Chalk Talk: As a *formative assessment*, students should participate in the final installment of silent *Chalk Talk* after completing the unit. At the beginning of the unit, students took part in this silent conversation technique by adding their comments, questions and reactions to a series of posters addressing themes found throughout the type 2 diabetes curriculum. Ideally, the posters should have been revisited once or twice during the unit, and then for the last time during the final assessment time.

After adding to the “conversation” a final time (ideally in a new pen color for each poster), the class can engage in a whole class discussion about what students observed and how their understanding and beliefs about the causes, preventions and impacts of type 2 diabetes have changed, or not, over time. This provides the teacher with a formative assessment of students understanding.

Call to Action: As a *summative assessment*, students continue to work on their *Call to Action* products, in which they have been synthesizing and applying their learning throughout the unit by creating a product that demonstrates their understanding of type 2 diabetes, addresses a specific diabetes-related problem, and contributes to a solution. Successful *Call to Action* products implement direct, meaningful, and relevant actions in order to make a contribution towards combatting diabetes within the students’ communities.

Learning Objectives

Students will be able to:

- Understand a problem associated with type 2 diabetes and implement a Call to Action product that contributes to a solution for the particular problem
- Develop a presentation for a specific target audience that communicates the goals, methods, results, and conclusions of the product.

Time: Students should be working in groups throughout the unit to identify areas of interest, and then assimilate, integrate and apply new information as they learn it. In creating a product, students identify an audience, and showcase their understanding of type 2 diabetes through an activity that is meaningful for that audience. At the end of the unit, students should be given at least two class periods to finalize their products.

Assessment – Type 2 Diabetes

Materials

Materials	Quantity
Computers for students	1 per student, if possible
<i>Call to Action</i> Resources*	Available for students
<i>Call to Action</i> Group Planning Worksheet*	1 per group
Grading Rubric	1 per student

*These documents are available in Word form at:

<https://gsoutreach.gs.washington.edu/instructional-materials/gem-type-2-diabetes/>

Project Based Learning

Type 2 diabetes is a complex condition that brings together issues of health care, scientific research, environmental influences, personal choice, access to resources, diet and exercise, social justice, public policy and more. The nature of this complex topic lends itself well to a *Project Based Learning* approach in the classroom. Using this teaching method, students work for an extended period of time to investigate and respond to this multi-faceted topic by addressing a specific diabetes-related problem and finding ways to contribute to a solution.

As with other project-based units, this curriculum is focused by a *driving question* that is open-ended and allows for students to make choices about which aspects of type 2 diabetes they would most like to explore as they create a project product. The driving question creates a *need to know* for the students, and each lesson contributes to the overall content knowledge and skill base that students will need to rely on as they implement direct, meaningful and relevant actions in order to make a contribution towards combatting diabetes within the students' communities. The driving question for this unit is:

How can the growth of type 2 diabetes [in the Yakima Valley] be slowed?

In order to deeply consider the driving question, students have been provided with information to answer a number of other complex questions, including:

- What causes type 2 diabetes?
- How can it be prevented or slowed?
- Why is it growing?
- Are there aspects of my environment (i.e. Yakima Valley) that contribute to this condition?
- Are there social factors in my area that contribute to type 2 diabetes?
- How do we as a society make decisions about policies that affect many of us?

A helpful resource with background materials and resources for Project Based Learning and can be found at the Buck Institute for Education (www.bie.org).

Assessment – Type 2 Diabetes

Project Ideas

Ideas for projects may include:

- Survey and analyze foods typically given at food banks
- Develop a cookbook
- Enroll a team/create an educational table for a *Tour de Cure* or other event
- “Do This, Not That” (in parallel to book “Eat This, Not That”)
- Develop a script for a “living room focus group”
- Propose public policy at local or state level to improve health
- Develop a monthly healthy menu plan for a family of four given a budget
- Assess the nutritional quality of school lunch programs
- Educate peers and others on sugar content of common drinks

Call to Action Resources

Name of resource
"A Call to Action on Diabetes." International Diabetes Federation. Nov. 2010. Web. < http://www.idf.org/webdata/Call-to-Action-on-Diabetes.pdf >.
"A Health Literacy Curriculum for ESOL Learners (Intermediate Level) Queens Library." A Health Literacy Curriculum for ESOL Learners (Intermediate Level) Queens Library. Queens Library, 2012. Web. 22 May 2012. < http://www.queenslibrary.org/services/health-info/english-for-your-health/teacher-intermediate-level >.
"American Diabetes Association: Diabetes." 1995-2012. Web. 22 May 2012. < http://www.diabetes.org/ >.
"America's Move to Raise a Healthier Generation of Kids." Let's Move! USDA. Web. 29 May 2012. < http://www.letsmove.gov/ >.
"Characteristics of an Effective Health Education Curriculum." Centers for Disease Control and Prevention. 29 Nov. 2011. Web. 29 May 2012. < http://www.cdc.gov/healthyyouth/sher/characteristics/index.htm >.
"Diabetes." WHO. 2012. Web. 22 May 2012. < http://www.who.int/mediacentre/factsheets/fs312/en/ >.
"Diabetes Public Health Resource." Centers for Disease Control and Prevention. 2012. Web. 22 May 2012. < http://www.cdc.gov/diabetes/ >.
"Final Rule: Nutrition Standards in the National School Lunch and School Breakfast Programs." United States Department of Agriculture. 25 May 2012. Web. 29 May 2012. < http://www.fns.usda.gov/cnd/Governance/Legislation/nutritionstandards.htm >.

Assessment – Type 2 Diabetes

Gill-Carey, O., and AT Hattersley. "Genetics and Type 2 Diabetes in Youth." National Center for Biotechnology Information. U.S. National Library of Medicine, 2007. Web. 29 May 2012. <<http://www.ncbi.nlm.nih.gov/pubmed/17991132>>.

"NHLBI-Portion Distortion Quiz." Stay Young At Heart. National Heart, Lung and Blood Institute. Web. 29 May 2012. <<http://hp2010.nhlbihin.net/portion/index.htm>>.

"NIH and the Weight of the Nation - Health Information - National Institutes of Health (NIH)." U.S. National Library of Medicine. 15 May 2012. Web. 29 May 2012. <<http://www.nih.gov/health/NIHandweightofthenation/>>.

"NIH Research Featured in HBO Documentary Series on Obesity." National Heart, Lung and Blood Institute. National Institute of Health. Web. 29 May 2012. <<http://www.nhlbi.nih.gov/news/press-releases/2012/nih-research-featured-in-hbo-documentary-series-on-obesity.html>>.

"Succeed at Weight Loss with Lose It!" Lose It! -. Fit Now, Inc. Web. 29 May 2012. <<http://www.loseit.com/>>.

"SuperTracker." SuperTracker. United States Department of Agriculture. Web. 29 May 2012. <<http://www.choosemyplate.gov/supertracker-tools/supertracker.html>>.

"Type 2 Diabetes." MedlinePlus Medical Encyclopedia. U.S. National Library of Medicine, 19 Apr. 2012. Web. 29 May 2012. <<http://www.nlm.nih.gov/medlineplus/ency/article/000313.htm>>.

The Weight of the Nation resources:

"The Weight of the Nation." HBO. Home Box Office, Inc., 2012. Web. 29 May 2012. <<http://theweightofthenation.hbo.com/>>.

"The Weight of the Nation: A Model of Community Action." HBO. Home Box Office, Inc. Web. 29 May 2012. <<http://theweightofthenation.hbo.com/films/bonus-shorts/healthy-mom-healthy-baby-the-risks-of-excess-weight>>.

"The Weight of the Nation: Download Materials." HBO. Home Box Office, Inc. Web. 29 May 2012. <<http://theweightofthenation.hbo.com/screenings/download-materials>>.

"The Weight of the Nation: Obesity and Type 2 Diabetes." HBO. Home Box Office, Inc. Web. 29 May 2012. <<http://theweightofthenation.hbo.com/films/bonus-shorts/healthy-mom-healthy-baby-the-risks-of-excess-weight>>.

"The Weight of the Nation: Schools & Early Care." HBO. Home Box Office, Inc. Web. 29 May 2012. <<http://theweightofthenation.hbo.com/themes/schools-and-early-care>>.

Name: _____ Date: _____ Period: _____

Use this worksheet to plan your Diabetes Call to Action product.

Names:
Group Name:
Problem Statement: What specific problem will your project address?
Research: Before you decide on a product, you must do research about the problems or barriers associated with diabetes in your community and possible actions you can take. Summarize the research your group did before decided on a project. <ul style="list-style-type: none">• Did you read news article or books on the issue?• Did you interview an expert of members of your community?• Did you observe the problem yourselves?• What facts or data did you gather?
Root cause of the problem: What have you learned about the causes of the problem?

Your Diabetes Product

What exactly is your group going to do?

How did your group decide on your product?

What are the goals for your product? What do you hope to learn, teach, or accomplish?

What is your plan for making this happen?

Tell us step-by-step what you plan to do.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

What is the time frame for your product?

How do you think this product will make a difference?

Category	Highly Effective 4	Effective 3	Improvement Needed 2	Ineffective 1
Problem Statement	Problem is clearly stated in an engaging manner. The problem is important and relevant to the community	Problem is clearly stated, but not in an engaging manner. The problem is important and relevant to the community	Problem is stated, but not in an engaging manner. The problem is not relevant to the community	Problem is not stated.
Contains accurate scientific information	Contains accurate information about glucose homeostasis, prevention/treatment, and all other information is accurate	Scientific information is accurate, but does not go into detail about glucose homeostasis and prevention/treatment	Accurate scientific information is sparse	Inaccurate scientific information is present
Shows an understanding of social impacts	Impact(s) of diabetes given with multiple pieces of evidence.	Impact of diabetes given with at least one piece of evidence.	Impact of diabetes given without any evidence to support.	Impact of diabetes NOT given
Contributes to a solution	Solution clearly defines a method to solving the problem, and is relevant for community	Solution adequately defines a method to solving the problem, but is not relevant for community	Solution is not clearly stated OR is not relevant for community	No solutions given
Visual Quality	Meets these criteria: -Neat, legible, readable -Appropriate color and images -Space used effectively	Meets two of these criteria: -Neat, legible, readable -Appropriate color and images -Space used effectively	Meets one of these criteria: -Neat, legible, readable -Appropriate color and images -Space used effectively	Meets none of these criteria: -Neat, legible, readable -Appropriate color and images -Space used effectively
Effectiveness of Message	Project clearly motivates audience to engage in the call to action	Project adequately motivates audience to engage in the call to action	Project somewhat motivates audience to engage in the call to action	Project clearly does not motivate audience to engage in the call to action
Use of Resources	Appropriate resources used and properly cited	Resource used but either not appropriate or properly cited	Resource used but not appropriate or properly cited	No resources are used or cited