



**THE
EDUCATION
FUND**

www.educationfund.org

2014-2015

ideas with **IMPACT**



idea packet

Sponsored by:

**Humana
Foundation**

**Squashing Obesity
& Growing Healthy
Eating Habits**



Squashing Obesity & Growing Healthy Eating Habits

Tanya Barber

tbarber@dadeschools.net

Miami Central Senior High

1781 Northwest 95th Street

Miami, FL 33147

(305) 696-4161

School Mail Code: 7251

For information concerning IMPACT II opportunities including Adapter and Disseminator grants,
please contact:

The Education Fund

305-558-4544, Ext. 113

e-mail: IMPACT@educationfund.org

web site: www.educationfund.org

Table of Contents



Table of Contents.....	Page 2
Standards.....	Page 3
Goals and Objectives.....	Page 4
Lesson Plans.....	Page 6
Photographs of Garden.....	Page 17
Materials & Resources.....	Page 19
Internet Resources.....	Page 20
Recipes.....	Page 21
Photographs.....	Page 24

Florida Standards

Language Arts Florida Standards

LAFS.910.RL.1.1: Cite strong and through textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

LAFS.910.RI.1.2: Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

LAFS.910.RI.2.5: Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).

LAFS.910.RI.2.4: Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).

Health Florida Standards

HE.012.B.3.1: Verify the validity of health information, products, and services.

HE.912.B.3.2: Compile data reflecting the accessibility of resources from home, school, and community that provide valid health information.

HE.912.B.6.3: Implement strategies and monitor progress in achieving a personal health goal.

HE.912.C.1.1: Predict how healthy behaviors can affect health status.

HE.912.C.2.7: Analyze how culture supports and challenges health beliefs, practices, and behaviors.

Goals & Objectives

Many urban communities have limited access to fresh and affordable produce. A diet that relies on processed foods often leads to obesity. Approximately 21-25% of all American children are obese which can lead to health risks and can contribute to diseases such as diabetes and heart disease. Innovative farming methods are being implemented in cities to increase the availability of fresh affordable produce. Some methods being explored in urban areas are vertical gardens, rooftop gardens, and hydroponics. We chose to plant a traditional school garden. Producing locally in any community space shortens the distance between farmer and consumer increasing the availability of healthy foods to city residents. Gardens enhance students' relation to nature, since such a relation ameliorates their physical, psychological and emotional health.



Goals & Objectives

Promoting the adoption of healthier nutrition through school gardens offer a context wherein students learn to cooperate and to accept their individual responsibility in collective actions. Gardening also helps students to acquire new abilities and enrich school activities regarding language arts, health and science, as well as environmental education.

School gardens can create ties among all participants in the academic and school communities. Furthermore, they offer the potential for alternative teaching methods that are proven more effective in cases of cognitive, visual, hearing, behavioral and learning difficulties.



Lesson Plans

(3-5) Class Periods

Grades 9-12

Students will:

- 1. Learn how culture influences body perception.**
- 2. Examine prejudices toward obese people.**
- 3. Examine their own feelings about their bodies and food choices.**

Materials

The class will need the following:

- Health textbooks, periodicals, and other text resources**
- Computer with Internet access (optional but very helpful)**
- Copies of Classroom Activity Sheet: Three different body types**
- Copies of Classroom Activity Sheet: Tally of Students' Perceptions of Body Weight and Size**
- Copies of Take-Home Activity Sheet: Your Opinion About Weight Body Image and Food Choices.**

Procedures:

- 1. Begin the lesson by giving students the Classroom Activity Sheet: Three Body Types. Tell students to look at the pictures and respond to the questions. Students should not attempt to make informed answers; they should give their initial reactions by responding quickly. They should not write their names on the sheets.**

Lesson Plans

2. Collect the Classroom Activity Sheet: Three Body Types. Select one or two students to tally students' responses on the Classroom Activity Sheet: Tally of Students' Perceptions of Body Shape and Size.

3. While these students tally the responses, ask the class why you presented the survey without any introductory discussion. Responses will vary, but most students will suggest that you are trying to gauge attitudes toward overweight and thin people.

4. Have students present the survey results, and discuss them with the class. Typically, the thin girls or boys (A and B) receive the most positive responses, while the heaviest girl or boy (C) receives the most negative responses. Discuss how students came to their conclusions. Students' comments may include the following:

Girl or boy C is heavy, so she must be the unhealthiest.

Since girl or boy C is heavy, he or she can't be making wise decisions consistently, because fat people eat too much, and they eat bad food.

Girl or boy C isn't attractive because he or she is too big. He or she should lose weight.

That girl or boy needs to work out.

Conclude the discussion by summarizing students' responses.

5. Divide students into four groups. Ask each group to consider how society influences our perceptions of overweight and obese people. Encourage students to consider the many ways we get information, including family and friends, television, movies, music, literature, and advertisements. Have each group prepare a presentation that includes the following:

Lesson Plans

Students will write a paragraph focusing on the group's ideas about how these factors influence our perceptions of overweight and obese people. It should state the factors that have the most influence and why.

A summary based on research, of the factors that influence society's perceptions of overweight and obese people. Research material may include pictures from magazines, advertisements, examples from movies and books, and any other resources about body perception.

A conclusion about the group's original ideas: Were they supported by research, or did they change? Students should explain how and why any of their ideas changed.

6. Suggest that students use magazines, newspapers, and resources from the library and the Internet, such as the following Web sites: *Unhealthy Reflections: Body Image & Teenage Girls or Boys*, *Aim for a Healthy Weight*, *Cornell Nutrition Expert*, *Obesity and Being Overweight*

7. Have each group share its presentation. Do the groups agree on how society influences our perceptions of overweight and obese people? Do they believe that one factor is more significant than others? If so, which one? Why do they think that factor is so important?

8. Conclude the lesson by asking students whether their opinions in the original survey have changed as a result of their research. Ask would students would they answer the questions differently now? What information has changed their perceptions of overweight and obese people?

9. Assign the Take-Home Activity Sheet: *Share your Opinion about Weight and Body Images*. If time permits, discuss students' responses during the next class period. What have students learned about their feelings about overweight

Lesson Plans

and obese people? What have they learned about their feelings about their own bodies?

Adaptations:

Focus on the survey and tally sheet. Have a discussion about students' feelings about overweight and obese people. Do they have prejudices? Are these prejudices fostered by the media? You may use the questions on the Take-Home Activity Sheet as a guide for class discussions.

Discussion Questions

1. Men in three villages in southeastern Peru were shown six drawings of women that differed only in body weight and waist size. The men chose a drawing for each of these categories: healthiest, most attractive, and best potential spouse. The overwhelming winner in every category was the drawing of the heaviest woman with the thickest waist. Why might the men perceive heaviness as attractive?
2. What is the difference between being overweight and being obese? Can an individual be healthy and overweight? Explain.
3. In the 1990s, more than 5 million American women suffered from eating disorders. This may be evidence that many American women have difficulty accepting their bodies. In your opinion, what must be done to help Americans accept their own bodies?
4. We usually think of fat as negative, but fat serves many purposes in the human body. Why do our bodies contain fat? What happens if a person's body fat is too low?
5. Some health risks are associated with having too much body fat. Research explains three such risks.

Lesson Plans

6. How much body fat is healthy for a teenage girl or boy? Why do you suppose that a healthy girl has more body fat than a healthy boy?

Evaluation:

Use the following three-point rubric to evaluate students' group work during this lesson:

Three points: cooperative work; accurate completion of the research assignment; demonstration of a clear understanding of the relationship between culture and weight; demonstration of a heightened realization of the need for more sensitivity toward people who are overweight or obese

Two points: somewhat cooperative work; completion of most of the research assignment with some level of accuracy; demonstration of some understanding of the relationship between culture and weight; demonstration of some understanding of the need for more sensitivity toward people who are overweight or obese

One point: trouble working cooperatively; completion of a small portion of the research assignment with some accuracy; demonstration of little or no understanding of the relationship between culture and weight; demonstration of little or no understanding of the need for more sensitivity toward people who are overweight or obese

Rubric

Name:

3	2	1
cooperative work; accurate completion of the research assignment; demonstration of a clear understanding of the relationship	somewhat cooperative work; completion of most of the research assignment with some level of accuracy; demonstration of some understanding of the relationship between culture and weight; demonstration of some understanding of the need for more sensitivity toward people who are overweight or obese	trouble working cooperatively; completion of a small portion of the research assignment with some accuracy; demonstration of little or no understanding of the relationship between culture and weight; demonstration of little or no understanding of the need for more sensitivity toward people who are overweight or obese

Lesson Plans

Extensions:

Genes and Obesity

Some people are overweight or obese because they have a condition they cannot control. Have students research and write a short paper about one of the conditions listed below. They should include the following information:

A description of the condition and its effect on body weight

Information about the prevalence of the condition

Other problems associated with the condition

The relationship between genes, diet, and lifestyle

How people with this condition try to control their weight

Cushing's syndrome. This syndrome is a hormonal disorder in which the hypothalamus or adrenal gland malfunctions: pituitary tumors may appear cortisol levels increase, and the person gains weight. About 10 to 15 million people are affected annually. Web site: Cushing's syndrome

Prader-Willi syndrome. This is a complex disorder in which the hypothalamus is malformed or damaged because of genetic factors, injury, or brain surgery. The sufferer never feels full after eating, leading to morbid obesity. It is estimated that 1 in 12,000 to 15,000 people suffer from PWS, the most common cause of genetic obesity identified. Web site: <http://www.pwsausa.org/>

Hypothyroidism. Underactivity of the thyroid gland slows the body's normal rate of metabolism. The condition occurs in 2 of every 100 people; many cases can be treated successfully. Web site:

<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001393/>

Weight and Entertainers

Divide students into small groups. Ask them to name as many chubby performers (living or dead) as possible in the categories of music, film, and television. Students can research periodicals or the Internet. Have students compare the number of female performers on their lists with the number of male performers. Is there a difference in the numbers of male and female performers? (There should be more men.) Ask students why they think this discrepancy exists. Then ask them to analyze each performance category. Are some more likely to contain overweight performers? (A group might say that there have been many overweight male and female comedians.) Ask students why they think one category seems to have more heavy performers. Finally, ask students whether they believe there is more prejudice against overweight women than there is against overweight men in the entertainment industry. Make sure students support their answers with specific examples.

Fat: Fighting the Obesity Epidemic

Robert Pool. Oxford University Press, 2001.

Using information gleaned from decades of research into appetite, metabolism, body fat, diet, and weight control, this book describes the latest understandings about obesity and the interplay of genes and behavior. Lots of case histories illustrate the struggle to control one's weight and where the battle is being waged today. Chapter notes are included.

The Adonis Complex: The Secret Crisis of Male Body Obsession

Harrison Pope, Jr., Katherine Phillips, and Roberto Olivardia. The Free Press, 2000.

There are many books on the market about female body image, but here's a different view. Men can be as obsessed with their appearance as women and resort to any number of unsafe behaviors to try to mold themselves in a particular way. Chapters discuss excessive weight training, steroid use, eating disorders, and distorted body image. Lots of case studies, diagnostic questionnaires, and suggestions for treatment make this an absorbing book.

Vocabulary

Morbid obesity

Definition: Weight gain that interferes with breathing and other vital functions.

Context: If a person's weight is 50 percent or more over the maximum desirable for his or her height, then that person is considered to suffer from morbid obesity.

Obesity

Definition: Weight that is 20 to 25 percent more than the maximum desirable for a person's height.

Context: There are multiple causes for the development of obesity, including a genetic propensity and overeating.

Overweight

Definition: Weighing more than 25 to 35 pounds over the maximum desirable for a person's height.

Context: Karen was constantly frustrated because no matter how little she ate and how much she exercised, she remained overweight.

Prejudice

Definition: A negative attitude or prejudgment toward a particular group.

Context: Many people have a prejudice against overweight people because they assume that people with weight problems are undisciplined and lazy.

Lesson Plan

Class Garden

Grade Levels: 9 - 12

Objectives

- The students will create a class garden and observe the growth of the plants.

Materials

- Garden spot
- Garden tools
- Seeds
- Watering cans, rain barrel, water hose
- Bench
- Decorative stones
- Mulch

Procedures

1. Before planting garden we will research the different type of gardens: roof top, vertical, hydroponic.
2. Select a spot for the garden, and then help the students till it. (Use landscape timbers or rocks to outline the area.)
2. Let the children decide which vegetables they would like to grow, then purchase the seeds.
3. Read the directions on the seed packets and make a diagram of the garden to outline where to plant different seeds.

4. Several days before planting, encourage the children to dig in the dirt with their tools and shovels.

5. Let the children make the rows, plant the seeds, and water their garden. (Label each row.)

6. Have the students care for their plants by pulling weeds and watering them throughout the year.

7. Students will "harvest" their vegetables and prepare them for snack or lunch.

8. Every student would make a decorative item to put in the garden or plant an item that represents them.

Types of Gardens

Define: Hydroponics

Vertical

Roof Top

--	--	--

Students at Work



Peppers

Teacher at Work



Materials & Resources

Materials needed for the garden include a bench, large flat shovel, edge shovel, pitch fork, stirrup, hoe, rake, wheel barrow, mulch, water wand, water hose and caddy, gardening gloves, seed starting supplies, soil, and fertilizer. Barbara McAdam from the University of Florida-Miami Dade County Extension has agreed to present a workshop at the school to demonstrate to students how to construct a rain barrel.

Bench	\$299.00	
Large flat shovel	\$38.99	
Edge shovel	\$14.99	
Pitch fork	\$44.99	
Stirrup	\$51.99	
Hoe	\$21.99	
Rack	\$18.00	
Wheel Barrow	\$88.00	
Mulch (10 bags)	\$69.90	
Water hose	\$39.99	
Water hose caddy	\$54.99	
Gardening gloves (15)	\$74.85	
Seeds (variety)	\$25.00	
Soil (12 bags)	\$120.00	
Fertilizer (5 bags)	\$64.95	Total 1,027.63

Internet Resources

Florida Agriculture in the classroom- <http://faitc.org/>

Back Yard Urban Gardening- <http://backyard-urban-gardening.blogspot.it/2011/03/why-plant-garden.html>

CPALMS-<http://www.cpalms.org/Public/>

Growing Minds- <http://growing-minds.org/lesson-plans/>

School Garden Weekly-<http://schoolgardenweekly.com/tag/lesson-plan>

Teacher Vision -<https://www.teachervision.com/plants/lesson-plan/>

Better Homes and Gardens

<http://www.bhg.com/gardening/plans/vegetable/vegetable-garden-plans/>

Recipes

Apple Pancakes

Ingredients

1 1/2 cups all-purpose flour or whole-wheat flour

1 to 3 tablespoons sugar

1/2 tsp salt

1 teaspoon baking soda

2 teaspoons baking powder

1/4 teaspoon ground cardamom, cinnamon, or nutmeg

2 local eggs

3 tablespoons butter, melted

1 1/2 cups buttermilk or milk

1 teaspoon vanilla

2 local apples, peeled, thinly slices

1 cup local honey

Variety of fresh fruit—2-3 local apples, 2-3 bananas, 1 pint berries, etc.

Instructions

1. Mix the dry ingredients in one bowl. In a second bowl, beat the eggs and add the butter, buttermilk, and vanilla. Pour the wet ingredients in the dry ingredients and stir just enough to combine. Stir in the apple slices.

2. For each pancake, drop 1/4 cup batter onto a nonstick griddle or skillet and set over medium high heat. Cook, without disturbing until fine bubbles appear

over the surface after a few minutes. Flip them over and cook until browned on the second side, about 1 minute. Refrain from patting them or turning them a second time - both actions will make the pancakes lose their lightness.

3. Serve drizzled in local honey.

Tools

1-2 large skillet or nonstick pans

Four medium bowls

Spatula

Mixing spoon

3-4 cutting boards

Paring knives, apple corer/slicer, or chopper

Measuring cups

Measuring spoons

Butane burner(s)

Small paper plates

20-25 forks

Hand sanitizer

Dish towels or paper towels

Gloves

Recipes

Apple Squash Bake

Prep Time: 30 minutes

Cook Time: 30 minutes

Ingredients

1 local winter squash, whole (acorn, butternut, buttercup)

3 or 4 local apples

1/2 cup walnuts, chopped

Maple syrup to taste (a good glug)

1/2 teaspoon cinnamon

1/2 cup apple cider

Cranberries, a handful

Instructions

1. Preheat oven to 375 degrees.

2. Cube squash and apples.

3. Place squash in baking dish with a good glug of maple syrup, cinnamon, walnuts, a sprinkling of cranberries, and apple cider.

4. Bake until squash is almost fork tender, add apples. Bake until apples are tender.

Photos











APPLY FOR AN IMPACT II ADAPTER GRANT!

M-DCPS teachers, media specialists, counselors or assistant principals may request funds to implement an IMPACT II idea, teaching strategy or project from the Idea EXPO workshops and/or curriculum ideas profiled annually in the *Ideas with IMPACT* catalogs from 1990 to the current year, 2014-15. Most catalogs can be viewed at The Education Fund web site at www.educationfund.org under the heading, "Publications."

- Open to all K-12 M-DCPS teachers, counselors, media specialists
- Quick and easy reporting requirements
- Grants range from \$150 - \$400
- Grant recipients recognized at an Awards Reception

To apply, you must contact the teacher who developed the idea before submitting your application. Contact can be made by attending a workshop given by the disseminator, communicating via email or telephone, by visiting the disseminator in their classroom, or by having the disseminator visit your classroom.

Project funds are to be spent within the current school year or an extension may be requested. An expense report with receipts is required by June 15th.

**APPLICATION DEADLINE:
December 10, 2014**

Apply online at www.educationfund.org

For more information, contact:

Edwina Lau, Program Director

305.558.4544, ext. 113

elau@educationfund.org

Contributors with IMPACT

Platinum Star

Florida Matching Grants Program



Gold Star



America's Most Convenient Bank®



Ford Motor Company Fund



Humana Foundation

Silver Star

Rod and Lucy Petrey



Robert Russell Memorial Foundation



PEREZ TRADING COMPANY



Bronze Star



The Jack Chester Foundation



Raj Rawal and Anne Marie Miller

Jonathan Symons