

THE NEW FACE OF POVERTY

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How is poverty different today than it was in the 1950s?

1950s

- Emaciated
- Wasting
- Gaunt

Today

- Obese
- Overweight
- Rotund

SUMMER 2011 INTERVIEWS WITH MIDDLE SCHOOL STUDENTS

Jo Morrissey, MS

Department of Health and Human Physiology

Dissertation Project

Data Collection – Muscatine Youth

Method:

- 18 one-on-one interviews (~ 60 minutes each)

5 Overweight/Obese Boys Hispanic: 2 Caucasian: 3	6 Overweight/Obese Girls Hispanic: 3 Caucasian: 3
4 Normal Weight Boys Hispanic: 1 Caucasian: 3	3 Normal Weight Girls Hispanic: 1 Caucasian: 2

Findings

- Nutrition

- ‘Healthy Eating’ defined as eating fruits & vegetables

- School Lunch:

- Lines for healthy foods are too long
 - Lunch period is too short to wait for health food
 - 2 lines for fried foods; 1 line for healthy foods
 - Perception salads are only for faculty/staff
 - Very few students bring own lunch

- Barriers:

- Lack of healthy options when dining out
 - Peer/family pressure to choose unhealthy foods
 - Healthy foods are more expensive
 - Lack of food at home due to family’s financial situation
 - Give into cravings; junk food tastes better & is easier/quicker to prepare

Findings

- Physical Activity
 - Family, friends, teachers, doctors, coaches, community resources, and tween/teen culture are BOTH facilitators & barriers to PA
 - When asked, ‘How much PA?’: ‘just do whatever they feel like doing’ was response
 - PA Barriers:
 - Winter
 - lack of transportation/ living in country
 - video games
 - too tired/too busy/too expensive
 - not aware of events/not interested in what is available
 - friends persuade them not to be active
 - PA Preferences
 - free space to be active w/peers
 - try out a variety of activities
 - girls like to walk during PE
 - be involved in decision making process



The Muscatine Heart Study

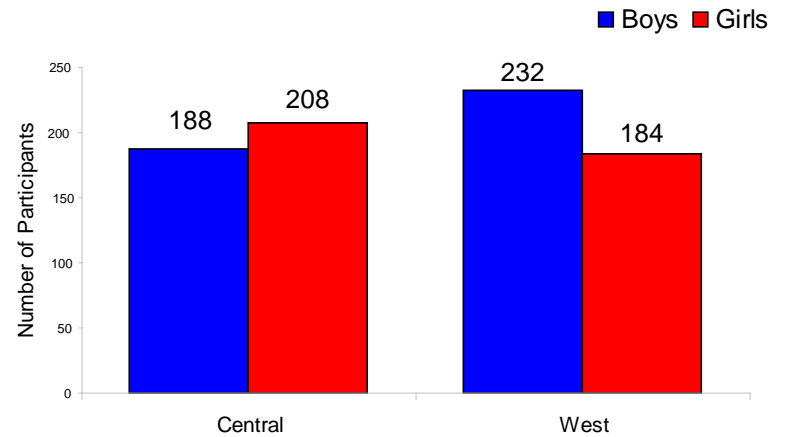
What's happened to Iowa children's health over the past 30 years?

Snapshot of Muscatine
middle school students -
What does the data tell us?

School Survey Examination and Student Participation

- **Survey Components:**
 - Fasting Finger Stick Blood Sample
 - Height & Weight
 - Waist & Hip Circumference
 - Body Composition
 - Questionnaires about Health & Physical Activity
- **Students Received:**
 - Information about their Health
 - \$20 Chamber Dollars

Participation by Middle School and Gender



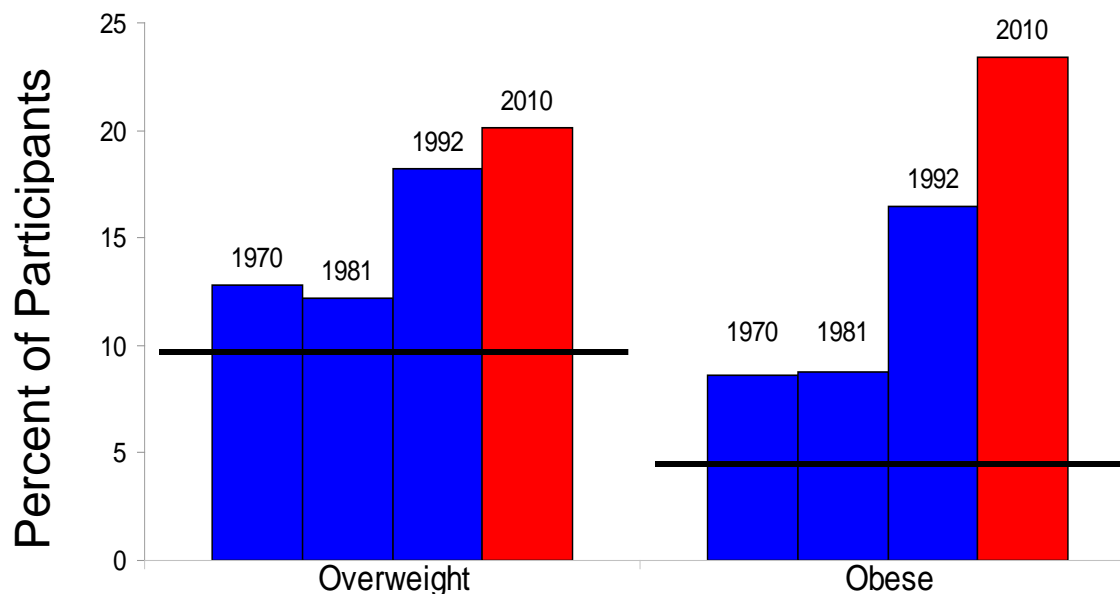
68% Overall Participation

812 of 1,194 registered students

Prevalence of Overweight & Obese Muscatine Middle School Students (ages 11 to 14) between 1970 and 2010

Overweight: $85^{\text{th}} \leq \text{age-gender-specific BMI percentile} < 95^{\text{th}}$ percentile

Obese: $\text{age-gender-specific BMI percentile} \geq 95^{\text{th}}$ percentile



44% of male and 43% of female Muscatine middle school students were Overweight or Obese – compared to 31% in a U.S. sample

Prevalence (%) of the Metabolically Unhealthy Middle School Students, by BMI Group and Ethnicity (N = 792)

	%	By Race/Ethnicity	%
Overall	15.4	Non-Hispanic White	13.3
BMI < 85 th percentile	1.8	Hispanic	22.7
85 th ≤ BMI < 95 th percentile	10.7	Multi-racial	20.6
BMI ≥ 95 th percentile	52.4	Other	21.4

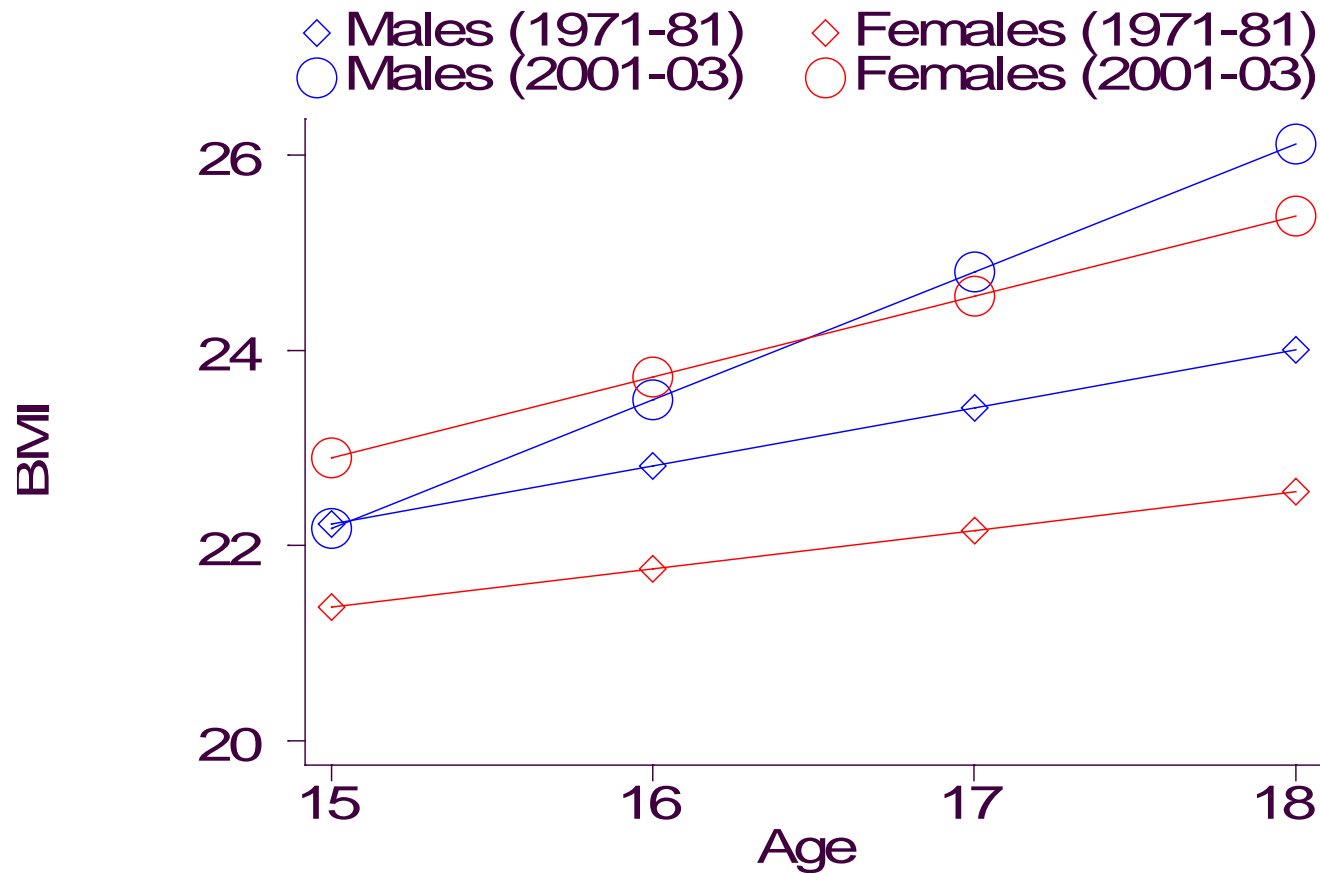
A cluster of abnormalities including:

High waist circumference, High blood pressure, High triglycerides

Low HDL cholesterol, High glucose

If a student had three or more of these five characteristics they were classified as having being metabolically unhealthy.

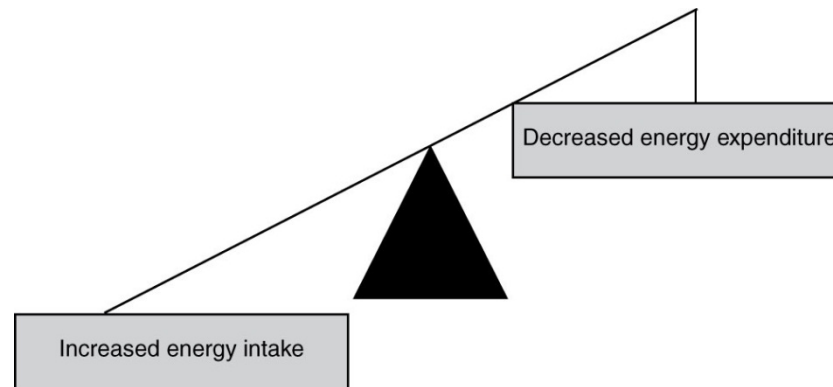
BMI of Offspring Vs. Parents at Same Age





Environmental and Social Changes Affect Health Behavior

During the last 20 years, what changes in our environment and lifestyle have contributed to the obesity epidemic?





Environmental and Social Change Affect Health Behavior

- More food available
- Growth of the food industry and advertising
- More meals away from home
- More sugar-sweetened beverages
- Large serving sizes
- More TV/video games
- More car travel
- Fewer PE classes
- Fewer students walking and biking to school
- Lower perception of safety

How do these environmental trends fit with the governor's Healthiest State Initiative?





What predicts most closely a person's health status at age 40?

Level of income



Promoting Health and Reducing Obesity in Children: A Community-Based Project in Iowa



A child needs to exercise for sixty minutes a day.

Adults need to exercise for one hour a day.

Adults need to exercise for one hour a day.



VITAMIN D

THE VITAMIN D THAT'S IN MILK HELPS YOUR BONES STAY STRONG.

CALCIFEROL ('CAL-SI-FER-OL') IS ANOTHER NAME FOR VITAMIN D.

NOT MANY FOODS HAVE VITAMIN D. IN THEM BUT SOME FOODS THAT DO YOU ARE: FISH SKIN, BEEF, CHEESE, LIVER, AND ETCETERA.



VITAMINS

VITAMIN C

YOU NEED VITAMIN C SO YOUR BODY CAN WORK WELL. IF YOU DON'T GET ENOUGH YOU MAY GET SCURVY A DEADLY DISEASE!

ANOTHER VITAMIN ACID.

YOU GET VITAMIN C IN FOODS LIKE: FRESH RAW FRUITS, GREEN VEGETABLES, FRUIT JUICE, CITRUS FRUITS, POTATOES, GREEN & RED PEPPERS, BROCCOLI & TOMATOES.

VITAMIN C HELPS OUR BODIES...

VITAMIN C HELPS OUR BODIES...

Aerospita

Informational table with a large bowl of orange slices, stacks of white paper plates, and various informational cards and papers.

Boy in a black and white checkered hoodie looking at the Vitamin C display.

Adults in white and red clothing standing near the display.



1. A child needs to exercise for sixty minutes a day

2. Adults need to exercise for one hour and fifteen minutes to two hours and thirty minutes a day, and strengthen their muscles two times a week

3. Older adults need to exercise for one hour and fifteen minutes a day

7. Also if you are a female and exercise less than thirty minutes a day you need 1.5 cups of fruit and 2.5 cups of vegetables a day to stay healthy and fit

8. Water helps keep your body at a normal temperature

9. Sixty minutes a day of exercise is the recommended weight loss program

THE EXERCISING HEART

By: Kaleb Timmsen, Shala Small, and Emily Fillmore



Our sources were from
<http://www.cdc.gov>
<http://www.cdc.gov/physical>
 activity
<http://www.cdc.gov/physical>
 activity/exercise_guidelines/
 adults.html
<http://www.cdc.gov/healthy>
 swimming/health_bene
 fit/water_exercise.html
<http://www.cdc.gov/physical>
 activity/exercise_guidelines/
 adults.html



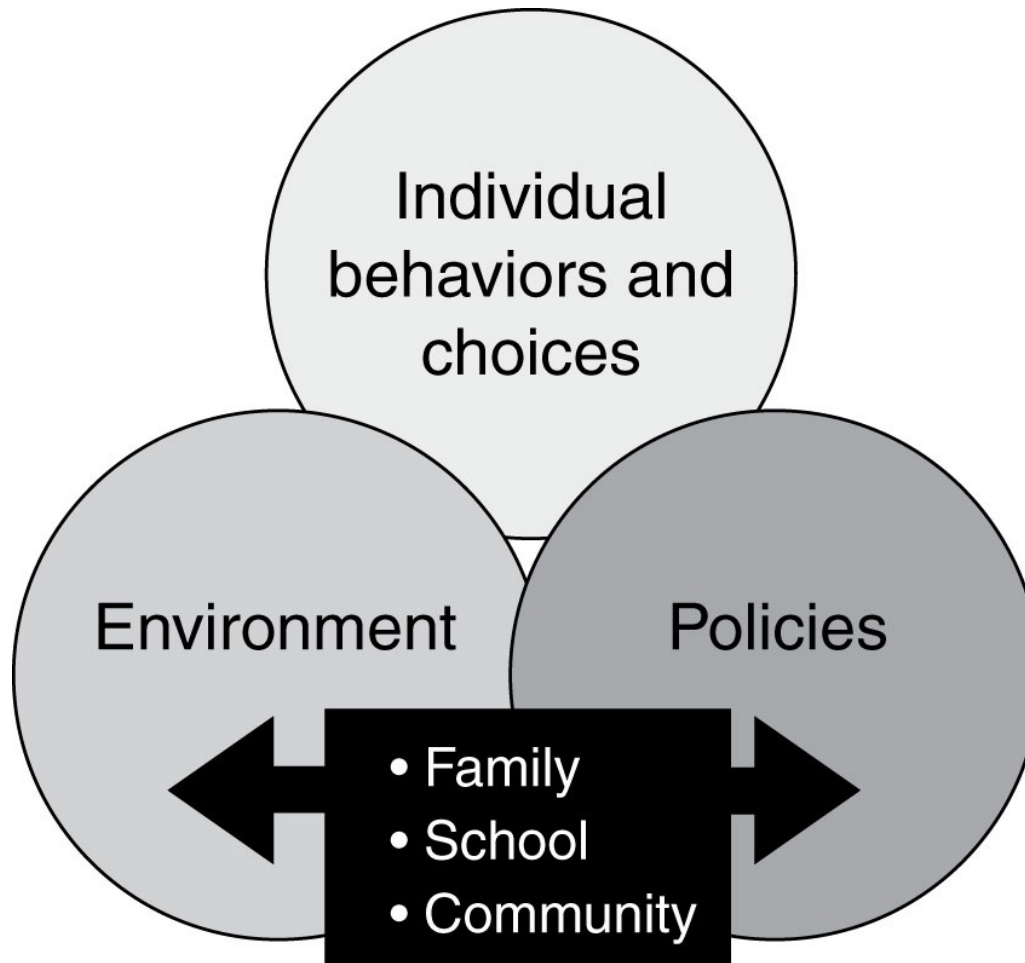
CHAMPS

Choosing Healthy Actions in
Muscatine Public Schools



Schools as Part of the Solution

CHAMPS





Healthy Eating/Physical Activity Critical to Learning and Achievement

- Eating breakfast increases academic test scores, daily attendance, concentration, and class participation.
- Children learn through movement.
- Physically fit kids perform better academically.
- Gross motor development is an important precursor for the fine motor skills needed for writing and the eye coordination needed for smooth tracking during reading.
- Children spend more time reading and doing homework when parents set limits on TV viewing.



CHAMPS Overview

Curriculum

- *Planet Health*

Enhance School Wellness Environment

- School wellness teams
- Wellness policy
- Community partners

Research Component

- Medical Screenings
- Behavioral Questionnaires



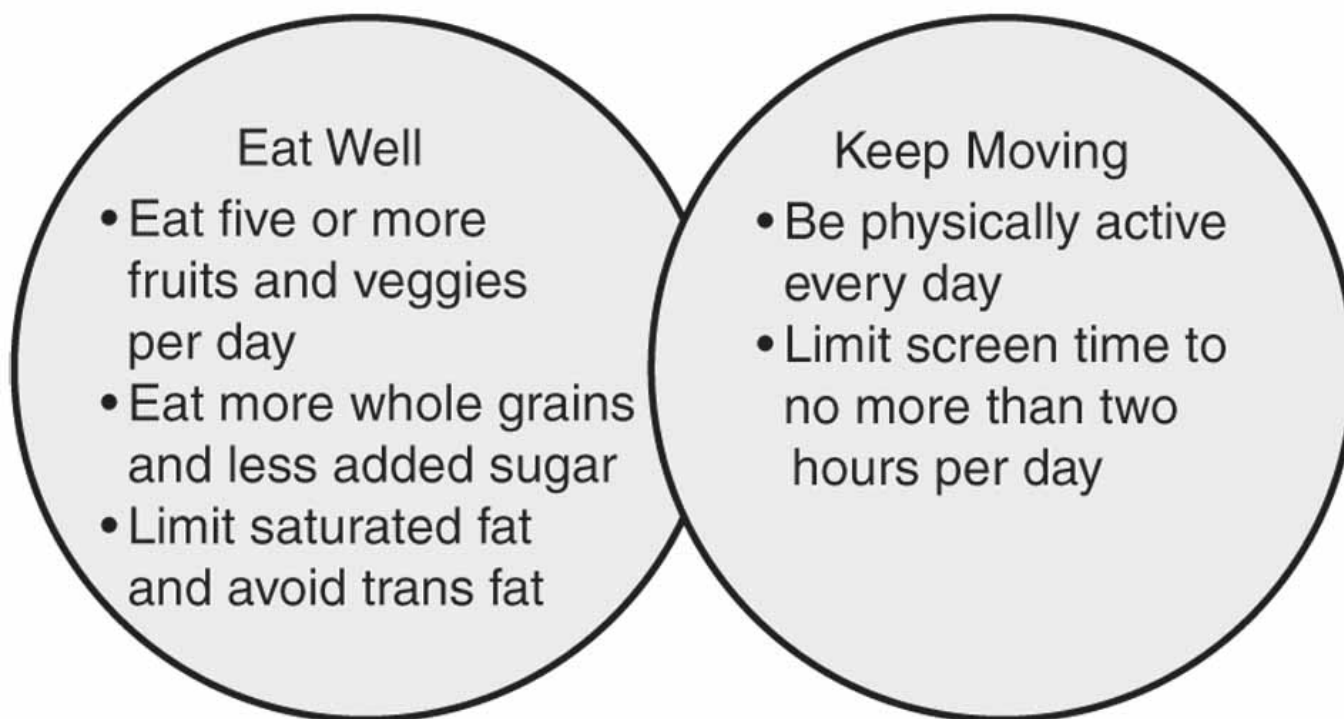
What Is *Planet Health*?

- An interdisciplinary health curriculum for middle school students that teaches students about nutrition and physical activity
- A curriculum that builds skills and competencies in language arts, math, science, social studies, and physical education



Planet Health Goals

Nutrition and Fitness





Why **THIS** Program?



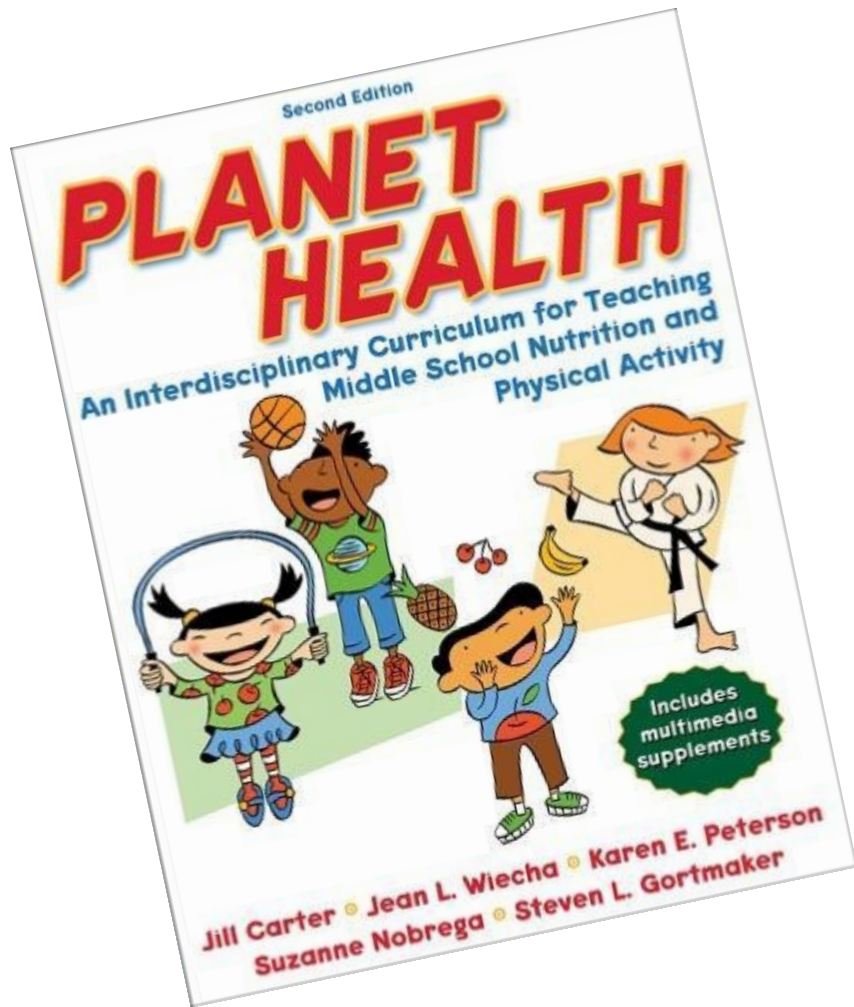
Planet Health has been evaluated and shown to be effective in a scientific study.

- It improves student knowledge of nutrition and physical activity.
- It reduces TV viewing time in both boys and girls.
- It increases fruit and vegetable consumption in girls.
- It reduces obesity in girls.



Teachers report that ...

- They felt competent teaching the health content.
- They were able to choose lessons that fit into their curriculum.
- They enjoyed the student-centered teaching techniques.
- *Planet Health* had a positive effect on their own health.
- *Planet Health* helped them to connect with their students.



Implementing the *Planet Health* Curriculum

Self Determination Theory

Essential Human Needs

These work in all cultures...

Competence

Autonomy

Relatedness



Planet Health Book Organization

Section 1: Implementing *Planet Health* in Your School

Section 2: Classroom Lessons

- Foundation lessons
- Language arts
- Math
- Science
- Social studies

Section 3: Physical Education Microunits

Appendices



Planet Health's
Educational Approach

Planet Health
promotes

The diagram features a central oval at the top containing the text "Planet Health promotes". Below this oval is a large, bold, black T-shaped arrow pointing downwards. The horizontal bar of the T connects to two starburst shapes: "Active learning" on the left and "Literacy across the curriculum" on the right. Below the vertical stem of the T is a larger starburst shape containing the text "Massachusetts curriculum frameworks".

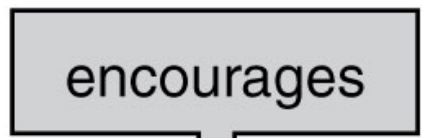
Active
learning

Literacy
across the
curriculum

Massachusetts
curriculum
frameworks



Student centered



Critical thinking



Constructivist approach

Problem solving

Inquiry

Cooperative learning

A variety of learning styles



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