CAMPBELL HIGH SCHOOL LITCHFIELD, NEW HAMPSHIRE

Presenters

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www.campbellhs.org

Campbell's Demographics

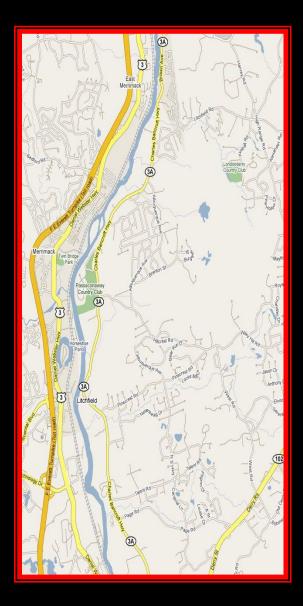
Just south of Manchester Suburban community of about 8,300

496 students enrolled, mostly white: 92%, other: 8%

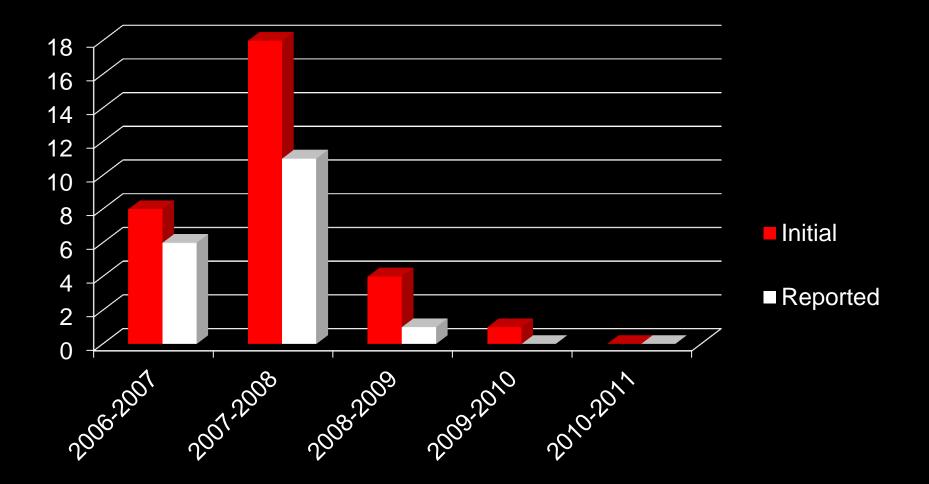
Graduation rate: 99.5% Annual Drop Out rate: 0.78% Four and two year college: 83%

Grade 11 NECAP Proficient & above:

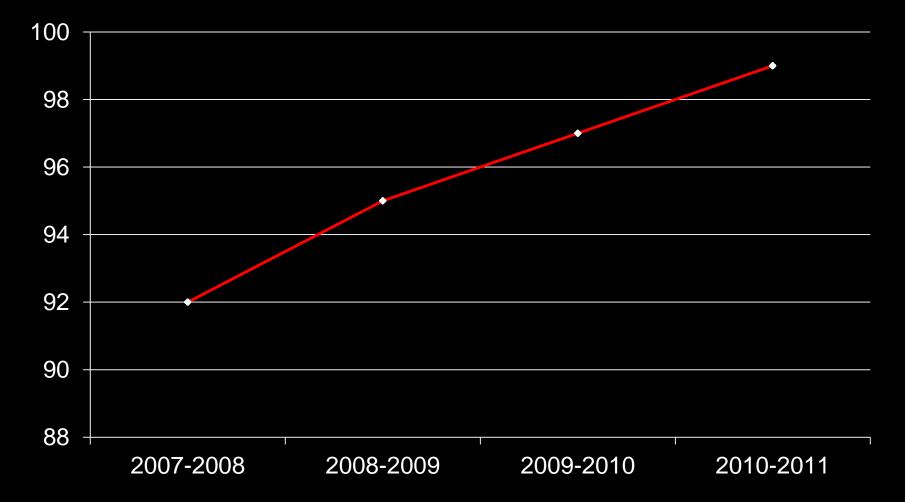
Reading: 85% (state 77%) Math: 39% (state 36%) Writing: 39% (state 46%)



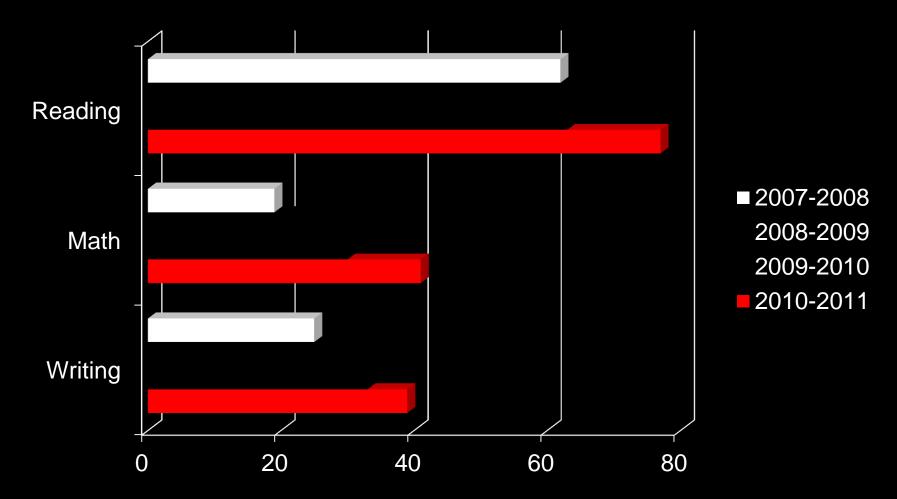
CHS Drop-Out data 2005-2010



CHS Graduation Rates 2007-2010

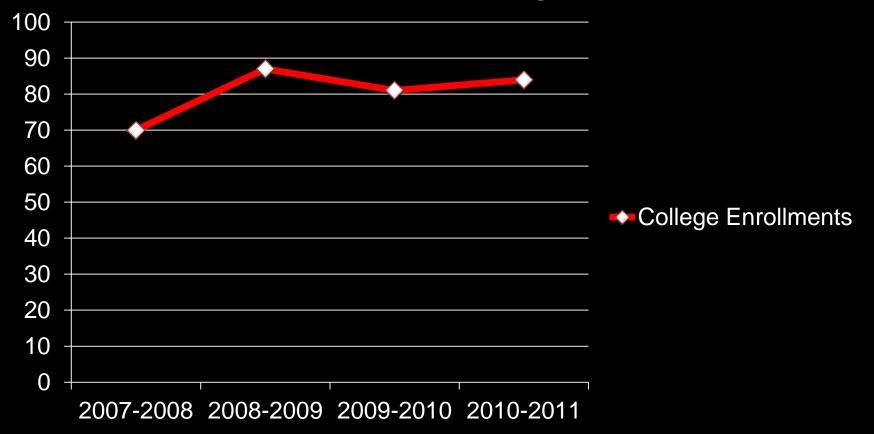


NECAP -State Testing Data Proficient or above



CHS College Enrollment Rate

2 and 4 Year Colleges



New Hampshire's Law

July 2005: Ed 306.27

"by 2008-2009 school year, the local school board shall require that a high school have in place <u>competency</u> <u>assessments for all courses</u> offered through high school"

and

a <u>high school credit can be earned by</u> <u>demonstrating mastery of required</u> <u>competencies</u> for the course, as approved by certified school personnel."

What is a Competency?

What is a Competency?

A competency is "a combination of skills, abilities, and knowledge needed to perform a specific task."

U.S. Department of Education, National Center for Education Statistics. *Defining and Assessing Learning: Exploring Competency-Based Initiatives*. 2001

Real World Examples









Definition

Proficiency, Mastery, and Standards

Do Standards mean Competencies?

Processing Activity

What professions in the work place require Competencies or Core Knowledge?

How do we see this reality in Schools?



Carnegie vs Competency Models

Carnegie Model

Seat Time Graduation Requirements



How do we define a "balanced education"? How does popular culture define education?

Competency Models

Essential Learning Compatible in Workplace

Academic Expectations:ReadThink/Solve ProblemsWriteObtain Information/ResearchSpeak

Civic and Social Expectations

Processing Activity

What are some of the benefits of moving to a competency based system? What "push-back" might occur?



Impact on Student Learning









Clearer Learning Expectations

-No guessing -They know better what is expected

All kids can learn at high levels Collaboration not isolation Results not just activity

Priorities for Learning 21st Century Skills

Collaboration Communication Creativity Critical Thinking

COLLABORATION









COMMUNICATION









<u>CREATIVITY</u>











CRITICAL THINKING











Processing Activity

What should students be able to "know and do"?

Create an example of one competency for ONE course at your school.

How do clear expectations help TEACHERS?

Help teachers provide EQUITY to ALL STUDENTS











Competencies are FIXED

Pedagogy is VARIABLE

CURRICULUM is organized by COMPETENCIES

COMPETENCIES

Bundle numerous learning standards

Make planning straight forward

Create connections and a global understanding of content

Learning is constant, time is the variable

Must DEMONSTRATE COMPETENCY

24 credits Eliminated a 20 credit diploma option Moved from 60 to 65 as a passing grade 4 blocks of 90 min classes Minimal Leveled classes Sophomore & Senior Project **Competency Based** Summative vs. Formative

COMPETENCIES

Bring greater focus to CORE elements of each "discipline or content" area.

EnglishMathScienceSocial StudiesMusicArtsBusinessTechnologyForeign LanguagesPhysical Education/Health

Computer Education Family Consumer Science

Processing Activity

What benefits would your teachers experience?



Writing Effective Competencies

OUR ROAD

New Hampshire Competency Rubric

What are EFFECTIVE competencies?

Expressed in two parts

- 1. Short one or two word TITLE
- 2. Longer CLARIFIER states what to know and do

Titles CHS English example

- TITLES
 - -Writing
 - -Vocabulary
 - -Literary Content

Clarifiers CHS American Studies English – example

Grammar and Punctuation

CLARIFIER

Students will demonstrate a clear understanding of English grammar including sentence structure, subject/verb agreement, personal pronoun/antecedent agreement, active and passive voice, and capitalization.

Curriculum Outline



Course & Level: Biology

Department: Science

Teacher: Frost, Orban

Campbell High School Character – Courage – Respect – Responsibility Grade level: 10

Description of Course:

Students taking Biology will investigate topics of ecology, cell structure, biochemical pathways, genetics, evolution, and the classification, structure, and function of living organisms. Laboratory activities will be used to reinforce these topics. This course meets the State requirements in biology and is required for graduation.

School – Wide Expectations: Academic:

The school-wide expectations are incorporated into all courses at Campbell High School. Underlined words in the following text illustrate this alignment between the school-wide expectations and the course curriculum.

- 1. Read, write and speak effectively
- 2. Exhibit critical thinking and problem solving skills
- 3. Use resources to obtain information and facilitate learning

Civic/Social:

- 1. Work cooperatively in an atmosphere of mutual respect
- 2. Exhibit personal responsibility.
- 2 Mark accordingly in an atmosphere of mutual respect

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3. Work cooperatively in an atmosphere of mutual respect

Core Competencies and State Standards: Semester 1

Cell Biology - Students will describe, <u>orally or in a written format</u> the structure and function of cells, and <u>compare and</u> <u>contrast</u> prokaryote and eukaryote cells.

LS 1 All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species). Understanding Biodiversity - Students will <u>examine and illustrate</u> the complexity and diversity of life, its classification and integration.

LS 2 Matter cycles and energy flows through an ecosystem.

LS5 The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

Semester 2

Living Systems - Students will review the characteristics and properties of organisms, including their structure and function. The complexity and diversity of life will be <u>examined by comparing and contrasting</u> a variety of living organisms. Students will demonstrate their understanding both <u>orally and in written assignments</u>.

LS 1 All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species). LS 2 Matter cycles and energy flows through an ecosystem.

Genetics and Evolution - Students will identify the basic mechanisms and outcomes of human hereditary and genetic engineering. Students will demonstrate their understanding and <u>critical thinking skills</u> by <u>recognizing and predicting</u> patterns and products of evolution, and its relationship to hereditary.

LS 3 Groups of organisms show evidence of change over time (structures, behavior, and biochemistry).

LS 4 Humans are similar to other species in many ways, and yet are unique among Earth's life forms.

LS5 The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

Scientific Research - Semester 1 and 2

Students will research, review and interpret current scientific developments and its ethical implications.

SPS1 – Scientific Inquiry and Critical Thinking Skills (INQ) SPS2 – Unifying Concepts of Science SPS3 – Personal, Social, and Technological Perspectives SPS4 – Science Skills for Information, Communication and Media Literacy

Scientific Technique and Investigation – Semester 1 and 2

Students will <u>demonstrate scientific inquiry</u> and its <u>nature of science analysis</u> in a laboratory investigation. They will produce <u>individually work</u> and also <u>work cooperatively in group situations</u>. Students are to demonstrate correct handling and safety techniques of laboratory equipment including accuracy in the dissection of specimens. SPS1 – Scientific inquiry and Critical Thinking Skills (INQ) SPS2 – Unifying Concepts of Science SPS3 – Personal, Social, and Technological Perspectives SPS4 – Science Skills for Information, Communication and Media Literacy

Biology Core Competency Example

Scientific Research

- Students will <u>research</u>, <u>review and interpret</u> current scientific developments and its ethical implications.
 - **SPS1** Scientific Inquiry and Critical Thinking Skills (INQ)
 - **SPS2** Unifying Concepts of Science
 - **SPS3** Personal, Social, and Technological Perspectives
 - **SPS4** Science Skills for Information, Communication and Media Literacy

Processing Activity

Know everything about cell biology.

Students will learn to multiply fractions.

Students will apply a variety of strategies to solve mathematical problems.

Students will apply appropriate media, techniques and processes.

What are Competencies?



A competency is based on seat time?

- a. True
- b. False
- c. Perhaps
- d. Only on a Tuesday

A competency is based on seat time?

a.

- b. False
- С.
- d.

Competencies bundle numerous learning standards together

- a. True
- b. False
- c. Possible
- d. When the weather is bad.

Competencies bundle numerous learning standards together

a. True
b.
c.
d.

How many competencies should a course have?

- a. Only 1
- b. Between 2 to 5
- c. Between 20 to 25
- d. One per student in the class

How many competencies should a course have?

- a.
- b. Between 2 to 5
- C.
- d.

Homework can be a competency?

- a. True
- b. False
- c. Maybe
- d. Only when it is a full moon

Homework can be a competency?

- a.
- b. False
- C.
- d.

How can we bring this back to our schools?

What can the benefits of this be for our school and students?

What issues do we foresee in bringing this to our schools?