South Brunswick School District

CONNECT-ED PLC
June 2010

District Priorities

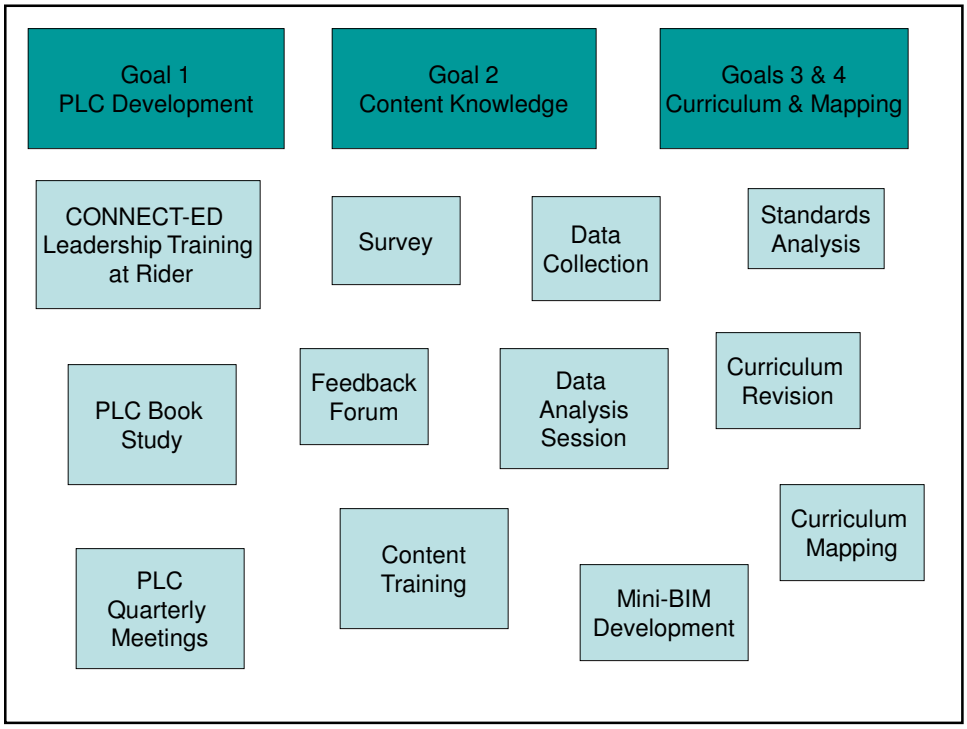
- To increase student and teacher science content knowledge
- To promote curriculum coherency and develop curriculum maps
- To foster inquiry instruction in our K-5 classrooms

PLC 3-Year Goals

- Create a Science PLC that will develop curriculum, district science professional development, and G & T opportunities in science
- To increase science content knowledge in elementary science teachers to promote comfort and skill in teaching science

PLC 3-Year Goals

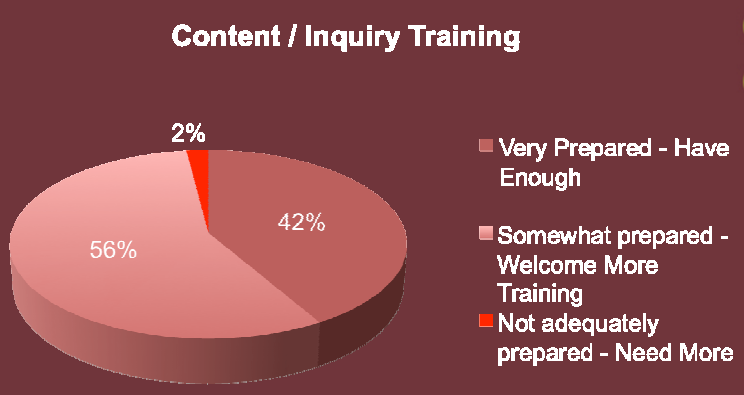
- To develop a coherent K-5 Science curriculum that uses Big Idea Thinking, Understanding by Design, vertical articulation, and the 2009 science standards
- To create a Curriculum Map for each unit in the K-5 curriculum, connecting concepts across grade levels



PLC 3-Year Goals

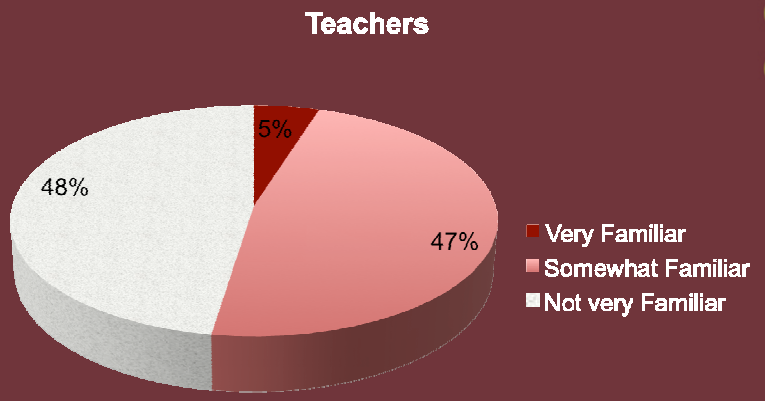
- To increase science content knowledge in elementary science teachers to promote comfort and skill in teaching science
  - Developed a "Teacher Knowledge & Attitudinal Survey" to obtain pre and post information on teacher perceptions
    - Opportunity for teachers to share their successes, frustrations, and needs in teaching science
    - The survey brought out a distinct need and desire for more training in both science content and inquiry learning

Need for Content/Inquiry Training



How prepared do you feel to teach the curriculum at your grade level?

District Curriculum Familiarity



How familiar are you with the district curriculum outside of your grade level?

Elementary Science Content Knowledge

- Teacher Content Training - Utilize our own science experts at the middle/high school level to train elementary teachers on the science content behind what they teach
- First Content Focus became 5th grade chemistry
  - Chosen based on significant absence of chemistry/properties of matter in elementary curriculum, as well as informal conversations and general feeling of "nervousness" coming from 5th grade teachers in that content area

Chemistry Content Workshop

- Workshop to focus on the 2009 NJCCCS in Science that correspond to matter and chemistry
- Workshop designed to focus on building and connecting concepts for the teachers
- Teachers will discuss what the students have learned previously (in previous grades) and what they will learn next in middle school.

5th Grade Chemistry Standards

- 5.2.6.A.1 The volume of some objects can be determined using liquid (water) displacement.****Determine the volume of common objects using water displacement methods.
- 5.2.6.A.2 The density of an object can be determined from its volume and mass. ****Calculate the density of objects or substances after determining volume and mass.

5th Grade Chemistry Standards

- 5.2.6.A.3 Pure substances have characteristic intrinsic properties, such as density, solubility, boiling point, and melting point, all of which are independent of the amount of the sample. ****Determine the identity of an unknown substance using data about intrinsic properties.
- 5.2.6.B.1 When a new substance is made by combining two or more substances, it has properties that are different from the original substances. ****Compare the properties of reactants with the properties of the products when two or more substances are combined and react chemically.

PLC 3-Year Goals

- To develop a coherent K-5 Science curriculum that uses Big Idea Thinking, Understanding by Design, vertical articulation, and the 2009 science standards
  - Analyze new 2009 Standards and "unpack" the standards in relation to our current curriculum
  - Review student data and survey analysis as it pertains to Curriculum development
    - Use that data to drive curriculum decisions

Curriculum Workshop

- 6/24 & 6/25 – held our curriculum development workshop
- Middle School and High School teachers worked with elementary teachers to develop curriculum
- Focus on conceptual support for curriculum writers
- Chose resources, developed lessons, wrote benchmark assessments, noted interdisciplinary connections

PLC 3-Year Goals

- To create a Curriculum Map for each unit in the K-5 curriculum
  - Teachers can use that map to see what concepts have been taught prior that they can build on, and how the concepts in their grade levels will carry over to further years
  - Mini-BIM development to dig deeper into the concepts, lessons, and units addressed in the concept maps