Engage students through Case Based-PBL lessons in the Secondary Education Classroom by integrating Literacy, Scientific Inquiry and Technology through real world and relevant learning experiences
Interrupted Case Based Learning

- Create a story or scenario that will intentionally “hook” students
- Implement various strategies
  - Pre-assessment
  - Building background knowledge
  - Literacy Strategies
  - Modeling
  - Inquiry
- Culminate the CBL/Case with students determining a solution to the problem
What led to my classroom transformation to case based instruction?

**FIRST**
The traditional program was resulting in poor student performance, high failure rate and behavior management issues.

**SECOND**
Case Based learning is fun and engaging. Students are involved in their own learning so they manage their own behavior.
What needed to be considered?

national standards

NYS core standards
Who is involved in case based learning?
What did this change require?

a new approach

student centered
What needed to happen?

program development

teacher buy in
What followed naturally?

**instructional change**

**student engagement**
Resulting in Growth for teachers and students
Goals of Engagement

Experience
An Interrupted Case
Participate in a CBL

**Teacher T Chart**

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Experience a Case Study

Who’s the Daddy?

PBL 1: Who’s the Daddy?

Read aloud and Highlight or use post-it notes to identify important information (pg. 2)
Work on Your Own

Record 3 Facts

and 3 Questions
CBL Groups

• You will be given a group card

• Move to CBL (Case Based Learning) groups by going to the picture on your group card
CBL Group Roles  Read the role cards and assign roles to each group member. You will work together to brainstorm facts and questions

Secretary

Director

Spokesperson

Recorder
Brainstorm Guidelines

• Take Turns and Call out ideas
• Record ideas as stated (verbatim)
• Strive for quantity
• Resist evaluation of ideas
• Encourage all ideas
• Piggy-back on other ideas
CBL Group Brainstorming

CREATE 2 POSTERS

→ BRAINSTORM Facts and Questions

→ Record the initials of each team members fact or question on the poster
What do you know? What do you want to know?

Facts and Questions
Who’s the Daddy?

• Building DNA
  – Building DNA Model (p. 6-8)
What is DNA?

Building the DNA Model
Who’s the Daddy?

• Who’s the Daddy
  – DNA Extraction \( (pg.\ 9-13) \)
  – DNA Explorer \( (pg.\ 14-15) \)

• Part 3: Research
  – Vocabulary Survey Chart \( (pg.\ 16) \)
  – Technical Information DNA Analysis \( (p.\ 17-22) \)
How do they get the DNA from Jake?
What are some of the tools that can be used to improve literacy skills?
Who’s the Daddy?

- Part 4: PBL 2 Who’s the Daddy
  - PBL Story (p. 23-24)
  - Bioethical Decision Making (p. 26-27)
  - Simulated Gel Electrophoresis (p. 27-31)
Who is the Daddy?

Gel Electrophoresis Lab
STUDENT CENTERED

TEACHER FACILITATED
Case Based Learning and PBL

HELP STUDENTS INTERACT WITH THE CONCEPTS
Teacher Comments

• “It takes care of my discipline issues.”
• “Students are involved.”
• “They seem to enjoy science more.”
• “They really like the PBL’s....Do you have any more for....?”
• “I’m surprised at how well they did.”
• “Science seems to make more sense to them.”
Student Comments

• “I feel like a real scientist.”
• “This is a fun way to learn this stuff.”
• “You’re kidding, this is real?”
• “Can we do more of these?”
• “Jenny doesn’t have the disease.”
• “Hey, look at my results!”