

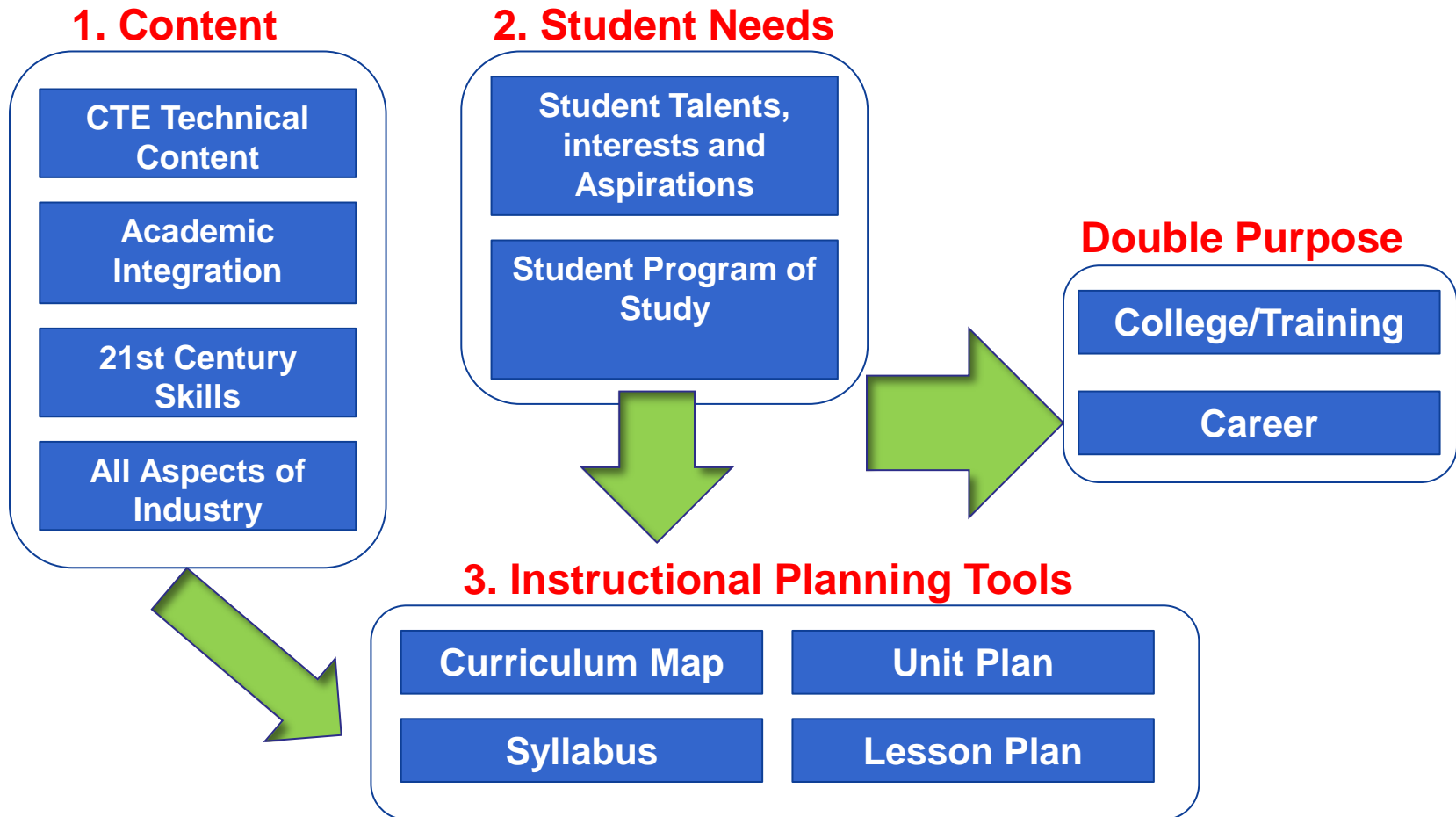
**SREB**

# **Career/Technical Instruction for the 21<sup>st</sup> Century**

**Heather Sass  
Southern Regional Education Board  
ACTE  
December 3, 2010**

Southern  
Regional  
Education  
Board

## Essential Concepts in Curriculum and Instructional Planning

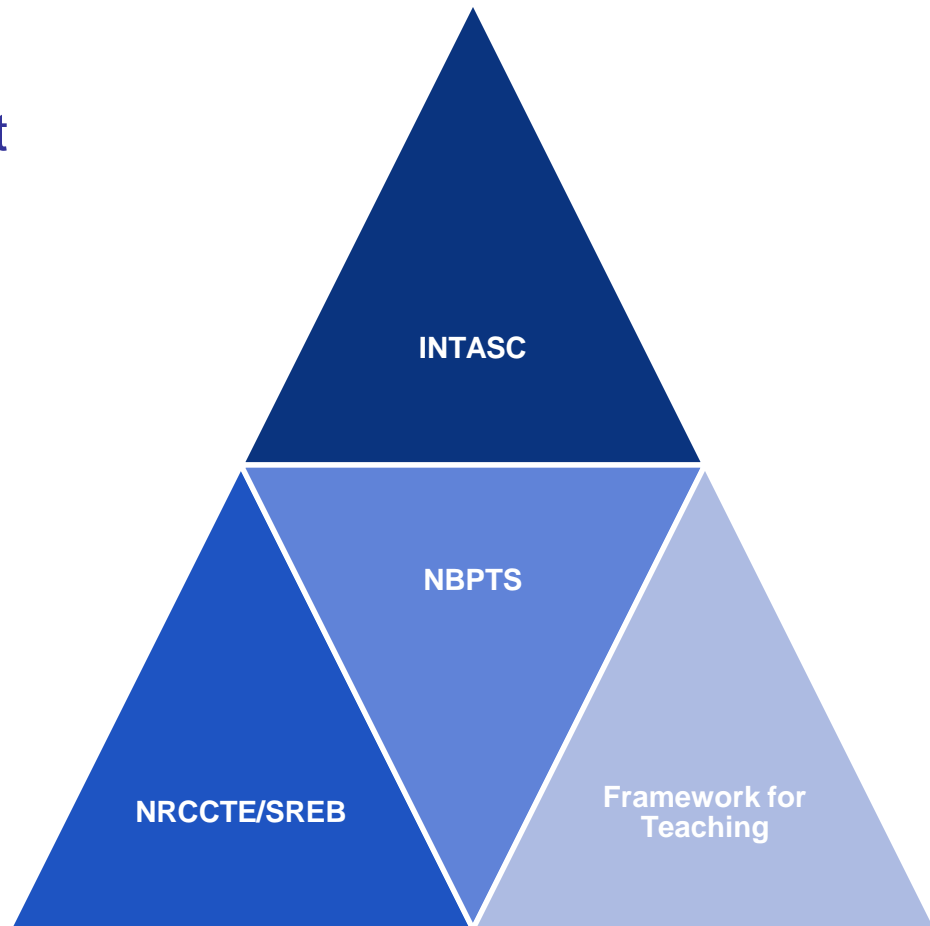


# Alternative Certification Model for Career/Technical Teachers

- **Develop and pilot an induction model for alternative-route certification for CTE teachers**
- **Professional Development**
  - 10-Day summer institute prior to first year
  - Three, two-day follow-up workshops in the school year
  - 10-Day summer institute at end of first year
- **Support**
  - External Coach—three visits
  - Mentor
  - Principal or district administrator
  - Communities of practice—opportunities for sharing with peers

# Research-Based Professional Development Content Alignment

- Interstate New Teacher Assessment and Support Consortium Model Standards for Beginning Teachers (1992)
- Framework for Teaching (Danielson, 1996)
- National Board for Professional Teaching Standards for Career/Technical Teachers (1997)
- NRCCTE research and SREB surveys



# Professional Development Content

## Instructional Planning:

Create short-term and long-term standards-based instructional plans based on the varying learning needs of students.

## Instructional Strategies:

Use instructional strategies that actively engage students in learning and encourage the development of problem-solving, critical thinking, and teamwork skills.

## Teacher Competence

## Classroom Assessment:

Use formal and informal assessment strategies to evaluate student progress toward learning goals and provide feedback to improve student learning.

## Classroom Management:

Create a learning environment that encourages student motivation, positive behavior, and collaborative social interaction.

**Teacher Reflection:** Reflect, both individually and collaboratively, on the effects of instruction and use the reflective process to continually improve instructional practice.

# Module Development Process

## Concept Paper

- Review of literature with an emphasis on scientifically based research
- Resources that are widely used in the field with good results

## Expert Panel Review

- Recommended by state CTE directors
- National Board Certified teachers, administrators, state leaders, postsecondary representatives, and content experts

## Draft and Review

- Instructor and participants' guides
- Review by field and staff
- Ready for field testing

# Considerations in CTE Instructional Planning

## Content: Mission- Focused

- Technical Knowledge and Skills
- Academic Knowledge and Skills
- 21-st Century Skills
- All Aspects of an Industry

## Students

- Developmental Stage
- Learning Styles
- Career Interests and Goals—Hopes and Dreams
- Achievement and Academic Goals
- Cultural Background and Experiences
- Special Learning Needs

- Curriculum Map
- Course Syllabus
- **Unit Plan with a Project-Based Learning Focus**
- Lesson Plan





# Research-Based Instructional Strategies

## Project-Based Learning

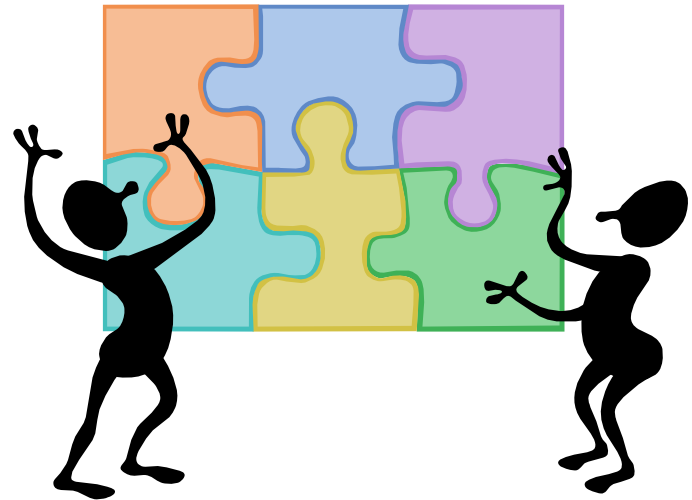
- Central to the curriculum
- Focused on real-world problems that lead students to the central knowledge and skills of an industry
- Involve students in intellectually challenging problem-solving and investigation
- Embed high-level mathematics and literacy
- Build self-direction and accountability

## Cooperative Learning

- Imitates real-life learning and problem solving
- Combines teamwork with **individual** and group accountability
- Working with diverse groups

# The Six A's

- Authenticity
- Academic rigor
- Assessment
- Active exploration
- Applied learning
- Adult relationships



# PBL Unit Planning Template

- Content
- Scenario
- Assessment—  
Formative and  
Summative
- Map of Lessons
- Materials
- Modifications, Support  
and Extensions



## Standards for Your Project

### Content Standards

- State Standards
- Common Core Standards

### Academic Power Standards

- Literacy
- Numeracy

### 21<sup>st</sup> Century Skills

- Critical Thinking
- Productivity and Accountability
- Teamwork
- Initiative
- Leadership



# Using Real-World Scenarios

## A scenario is...

A real-life situation that engages learners in solving problems or performing tasks to demonstrate knowledge and skills in context.

## A good scenario...

- Supports construction of knowledge
- Uses substantive content
- Integrates knowledge from different content areas
- Provides for elaborated communication
- Includes presentation to an audience beyond school

## Scenario Template

You are a (insert a real-world role). You are faced with (insert a problem). You must (insert what must be done to solve the problem). Once you have decided on a course of action, you will (insert an opportunity for presentation to an authentic audience).

# International Business Plan

- You are a member of a venture capital group who will propose a new international business. Prepare a written proposal (30 pages) for the venture, describing the type of business, proposed country for trade, rationale for selecting the country, identifications of existing trade barriers, and a thorough analysis of the international business situation (economic and political systems, culture, and trade area). The proposal must describe the planned business operation (organization, product/services, and strategies) as well as planned financing, including income and expenses.
- In addition to the written proposal, give a 15-minute presentation about the proposal, selling the idea to potential investors.



## Culinary

- As a chef at a local eatery, the owner has asked you to develop several menu items that would appeal to customers who are health-conscious. Create several recipe ideas, determine their nutrition information, and test them on potential clients. Develop a set of criteria for your final selections for the menu. Present your final recommendations to the restaurant owner, explaining how each food meets the criteria you have identified.

# Deconstruction Safety

- You are a construction manager. Your crew will be using explosives to clear fallen rocks from a roadway, a task with many inherent risks—flying rock, premature detonation, vibration, air-overpressure and environmental pollution. Although the blaster is responsible for setting and detonating the explosives, safety is the responsibility of the construction manager and every member of the construction crew.
- Research and read the appropriate set of OSHA regulations, understand the technical information it contains, and extrapolate the most important information.
- Plan a “toolbox talk” for the construction crew to effectively convey the safety instructions and reinforce their awareness of the safety issues at hand.



## ***NEW MARKET***

Sports Illustrated is an American sports magazine owned by media conglomerate Time Warner. It has over 3 million subscribers. It was the first magazine with circulation over one million to win the National Magazine Award for General Excellence twice.

We are currently doing very well amongst our competitors in market share. We currently have 23 million readers, 18 million of which are male we need to try and attempt to draw in more females subscribers.

Our research shows that we have a great need to focus on female sporting activities. Professional, collegiate, or international can be the focal point of our new look. Our designers need to develop a new look and feel to draw in new readers.

Your job assignment is to design and create a magazine cover that will help Sports Illustrated appeal to their female audience. By researching various sports and sports icons you must decide what should be on our cover. The design aspects have a great deal of flexibility. The corporate executives are looking forward to seeing your cover.

# Sports Illustrated

Life in soccer:  
Rules  
the play  
getting ready  
for World Cup  
2010

June 2010



FIFA World Cup  
2010 team chart

The world is ready for  
soccer.  
Are YOU?

Top 10 soccer  
teams in the  
world.



## ***CHICAGO MARKET***

**Vogue magazine has done very well in the United States market. They are experimenting with the idea of having specific issues related to particular geographical locations. Our marketing team has suggested that we create a VOGUE issue dedicated to Chicago fashion. We would send out this issue as a bonus to our current Chicagoland subscribers. We would then conduct research to determine if this would be beneficial to Vogue. We would like to see if creating location specific issues would boost sales in that particular market.**

**Your job as our top designer is to research what exactly is “Chicago Vogue.” Use your own acquired skill set to help guide you in the design process. You have been in the Chicagoland area for quite some time; you should have a good idea of what would draw in readers. You must decide what the feature stories and cover story will be. We are expecting great things from you, so don’t let us down.**

# VOGUE

top **25**

Best places to go in  
Chicago

Springs Hottest colors  
Green, Scarlet, Purple,

Blush

Chic and Unique

**10** best dressed  
women  
of the Year

**KIM  
KARDASHIAN**

Joining Us For The  
2010 Chicago Fashion  
Week

How to update your  
spring wardrobe

Who will be our  
honored guests for  
the Chicago Fashion  
week?



# Examples of Inquiry-Based Projects

- <http://pathways.ohiorc.org/>

# Classroom Assessment

## Formative

- Interactive, to form or alter the learning process
- Provide information to be used as feedback to modify the teacher and learning activities
- Begins immediately within the learning episode and spans its duration
- Formal or informal

## Summative

- At the end of a learning episode, process or activity when it is more difficult to alter or rectify what has already occurred



## Examples of Formative and Summative Assessments

### Formative

- Quizzes
- Checks on Class Work
- Discussion with a Student
- Project Checkpoints
- Drafts
- Practice Performances

### Summative

- Tests
- Performances
- Projects
- Papers
- Products

# Role in Project-Based Learning

## Formative

- Provides feedback to improve the final performance
- Helps students understand the criteria for quality work
- Motivates students to do their best work

## Summative

- Provides evidence that students have met the standards
- Provides data to be reviewed by teachers to see how the project or the instruction can be improved

# Goals of Classroom Management for CTE Classrooms

- Personalize relationships
- Create a respectful, responsible workplace-like learning community
- Teach 21<sup>st</sup> Century Skills



## Classroom Management: Beliefs for Building a Respectful Culture


### Ability-Based

- I don't believe that all kids can really learn what I teach or pass my class.
- My job is to teach you, not motivate you.
- My job is to focus only on technical skills.

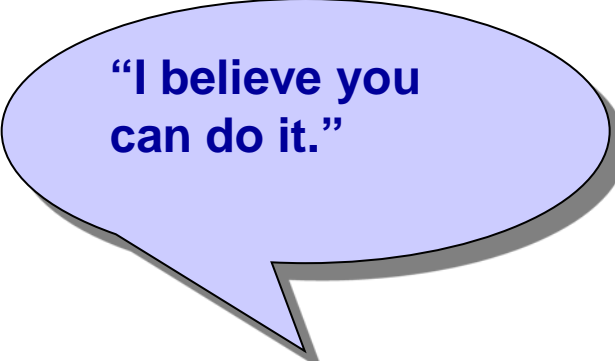
### Effort-Based

- All students can learn to high standards and it's my job to see that they do.
- I can use a variety of approaches to motivate students.
- I prepare students to be life-long learners as well as developing technical knowledge and skills.

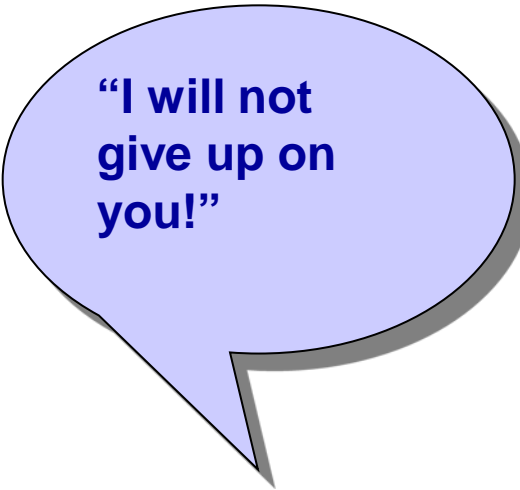
## Three Important Messages



**“This is important.”**



**“I believe you can do it.”**



**“I will not give up on you!”**

**Reference:** “Masters of Motivation” by Jonathon Saphier. Chapter 5 in *On Common Ground: The Power of Professional Learning Communities*, Edited by Richard DuFour, Robert Eaker, and Rebecca DuFour.

## Personalize the Learning Environment

- Know Students Well
- Create a Climate of Respect
- Rituals and Routines
- First Weeks of School
- CTSO
- Personal connection with each student every day and written every week

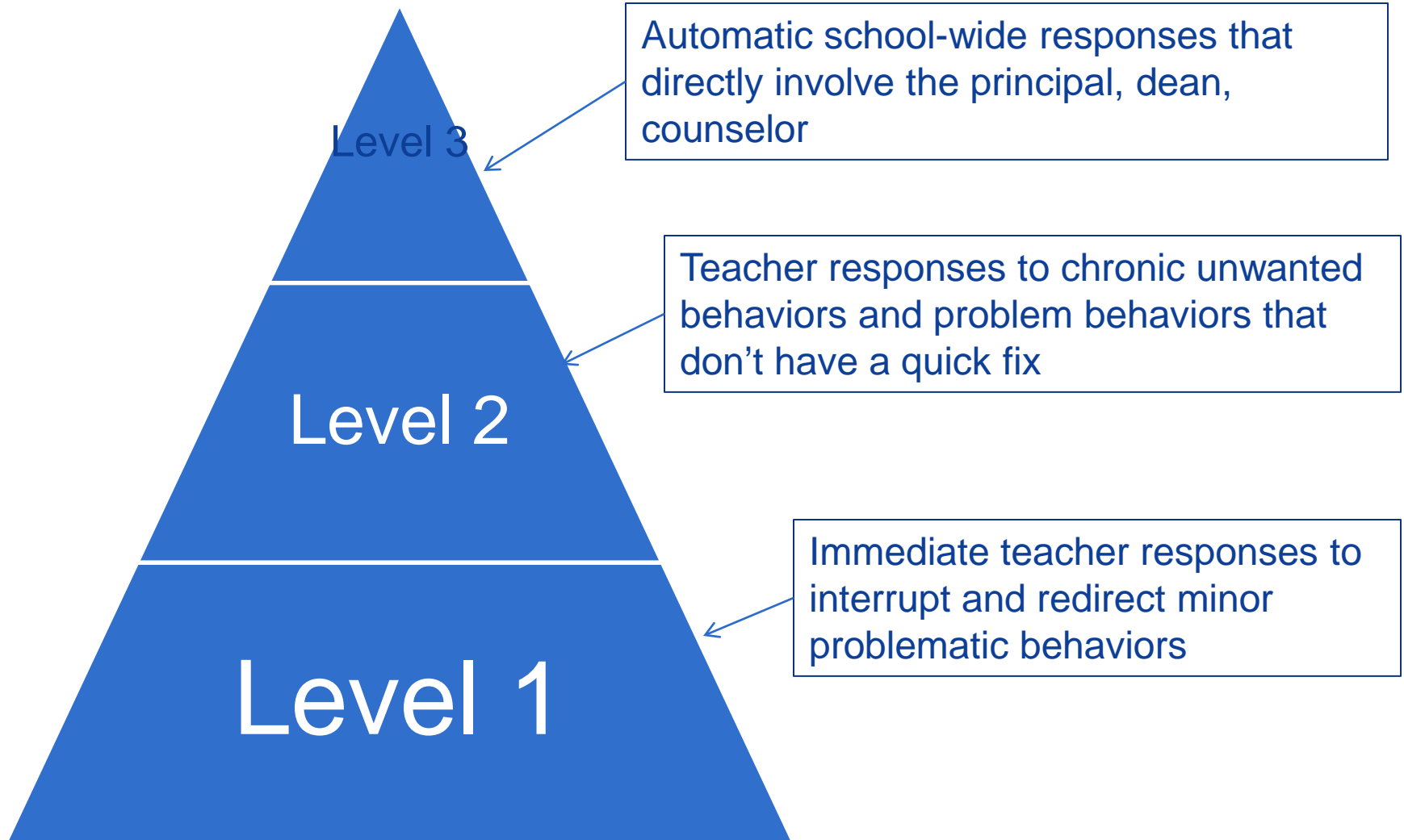


# Create a Classroom Vision Statement

- What are the most important qualities of a good student? A good teacher?
- What things can I do to be successful in this class?
- What can the teacher do to support my success?
- What can you do to support other students to do their best in class?
- What makes learning fun in class?
- What makes a classroom a safe space?
- What kinds of learning tasks, activities, and homework are easiest for me? Hardest?
- What hopes do I bring to this class?
- In what ways do I like to be challenged?
- What kinds of things do I hope students will never say or do in this class?



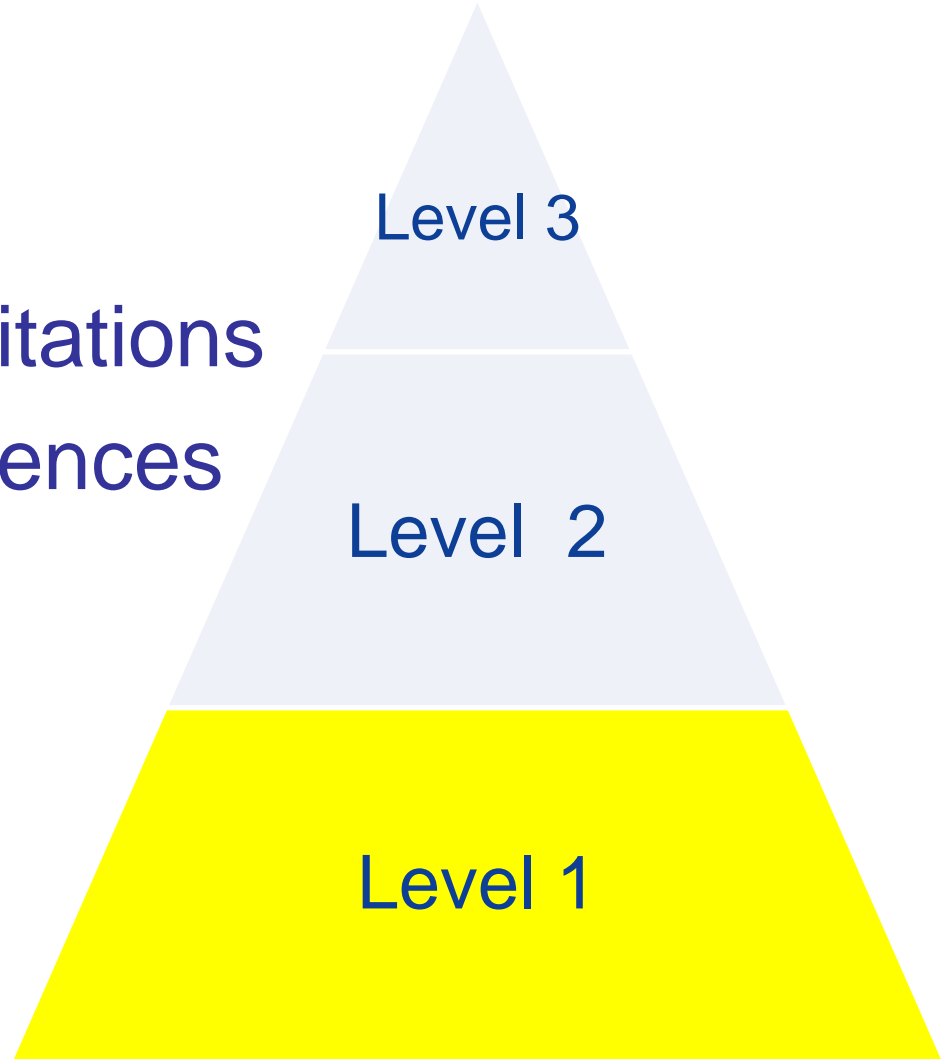
## Three Levels of Consequences and Interventions





# Responses to Inappropriate Behavior—Level 1

- Proximity
- Prompts and invitations
- Logical consequences



# Responses to Inappropriate Behavior—Level 2

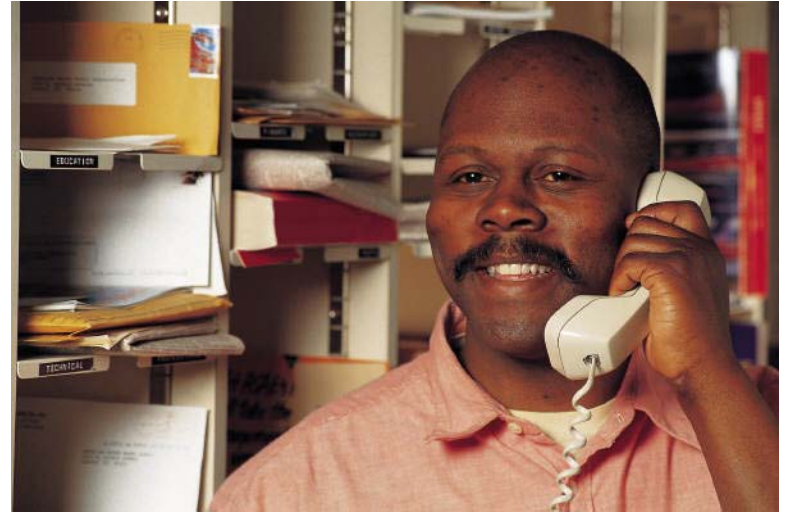
- Accountable consequences and interventions for students who engage in chronic behavior
- Parent phone calls
- One-to-one conferences resulting in contract to correct behavior
- “Owed” time before or after school
- Conferences with other school staff
- Office referral



## Value of One-to-One Conferencing

- Links problem behaviors to desired target behaviors
- Shows concern
- Helps you find out more about the “whys” of the behavior—motivation, resistance, and when students are upset
- Helps you develop behavior plans
- Strategy for working with frequent fliers

- “Tell Me More”
- Sunshine
- Student Calls
- Problem Behavior Calls
- 6 a.m. Wake-Up Call
- Call to Workplace



## For More Information

- [heather.sass@sreb.org](mailto:heather.sass@sreb.org)