

# Principles of Learning

## Organizing for Effort

- Clear and high expectations
- Curriculum geared towards standards
- Fair and credible evaluations

## Clear Expectations

- Standards available and discussed
- Models of student Work
- Students judge their own and others' work

## Fair and Credible Evaluations

- Exams referenced to standards
- Curriculum and assessments aligned
- Grading against absolute standards, not curve
- Reporting system makes clear how students are progressing toward expected

## Recognition of Accomplishment

- Frequent recognition of student work
- Recognition for real accomplishment
- Clearly demarcated progress points
- Celebration with family and community

## Academic Rigor in a Thinking Curriculum

### *Commitment to a Knowledge Core*

- An articulated curriculum that avoids needless repetition and progressively deepens concepts
- Curriculum and instruction organized around major concepts
- Teaching and assessment focus on mastery of core concepts

### *High Thinking Demand*

- Students expected to raise questions, solve problems, reason
- Challenging assignments in every subject
- Extended projects
- Explanation and justification expected
- Reflection on learning strategies

### *Active Use of Knowledge*

- Synthesize several sources of information
- Test understanding by applying and discussing concepts
- Apply prior knowledge
- Interpret texts and construct solutions

## Accountable Talk

### *Accountability to the Learning Community*

- Actively participate in classroom talk
- Listen attentively
- Elaborate and build on each other's ideas
- Work to clarify or expand a proposition

### *Accountability to Knowledge*

- Specific and accurate knowledge
- Appropriate evidence for claims and arguments
- Commitment to getting it right

### *Accountability to Rigorous Thinking*

- Synthesize several sources of information
- Construct explanations and test understanding of concepts

## Socializing Intelligence

### *Beliefs*

- I have the right and obligation to understand things and make them work.
- Problems can be analyzed and I am capable of that analysis

### *Skills*

- A toolkit of problem analysis skills (metacognitive strategies) and good intuition about when to use them
- Knowing how to ask questions, seek help, and get enough information to solve problems

### *Disposition*

- Habits of mind
- Tendency to try actively to analyze problems, ask questions, and get information

## Self-management of Learning

- Metacognitive strategies explicitly modeled, identified, discussed, and practiced
- Students play active role in monitoring and managing the quality of their learning
- Teachers scaffold students performance during initial learning, gradually remove

## Learning as Apprenticeship

- Students create authentic products and performances for interested, critical audiences
- Experts critique and guide student work
- Finished work meets public standards of quality
- Learning strategies are modeled