



Rationale and Planning

WHAT ARE HABITS OF MIND?

Habits of Mind are thoughtful behaviors—what some have called “intellectual dispositions”—that allow us to cope with a complex and rapidly changing world. They are powerful tools we can use to intelligently navigate the moral, ethical, and spiritual challenges we encounter in our increasingly complex world. Habits of Mind also serve as guiding principles to promote successful lifelong learning both within the classroom and in the world beyond it. Habits of Mind can be used to

- Establish and maintain positive relationships, including appreciation of the unique perspectives and points of view evident in our culturally diverse world.
- Develop and use effective communication techniques and strategies, including active listening, consensus building, and interpersonal awareness.
- Apply flexible thinking strategies to complex situations requiring authentic problem solving and decision making.
- Demonstrate powerful character traits, such as self-reflection and resilience, that have been labeled 21st century skills for our global economy and increasingly interdependent world.

Name _____ Class _____ Date _____

Inventing the Lightbulb

Read the quotation about Thomas Edison’s experience in inventing the lightbulb. Then, for each step in the chart that follows, consider what Edison might have done to remain persistent while attempting to invent the lightbulb.

Inventing the Electric Lightbulb: A Story of Persistence

The invention of the electric lightbulb caused Thomas Edison a great amount of work, angst, and experimentation. He conducted hundreds of experiments in his attempt to find the perfect solution that would lead to creating the perfect lightbulb. Although he himself never lost faith in the value of his efforts, many of those around him did. As time passed, the nonbelievers became increasingly certain that he would not be successful.

Edison’s method was to think of an idea or theory and then, through the process of trial and error, work through every possibility and variation until he exhausted all options. Then he would start from scratch again, with a different approach, and repeat the same deductive process, exploring all avenues. Edison believed that if he was thorough, learned from his mistakes, and held firm in his belief in himself, he would eventually succeed. And succeed he did!

Edison’s Achievement

Steps to Persistence	Examples from Edison’s Experience
1. Determine what needs to be solved, decided, or achieved.	
2. Know what range of approaches or strategies you can use.	
3. Find out who or what may be of assistance with this task.	
4. Know when to try another approach or strategy.	
5. Keep working toward solving the problem.	



Persisting



PURPOSE OF THIS TOOL

Persisting is a Habit of Mind that relates to sticking to a task until it is completed. People who use this habit don't give up easily. They devise methods for analyzing the situation and create a plan for solving problems and accomplishing goals. With this tool, students become familiar with persisting as an important habit to develop.

The resources in this tool will enable students to

- Use persistence to solve several challenging puzzles.
- Examine how persistence helped a historical figure make a significant achievement.
- Identify and apply important steps in applying persistence.
- Examine how persistence has helped in their achievements.
- Self-evaluate their willingness to be persistent.
- Create an action plan for improving their ability to be persistent.

HOW TO USE THIS TOOL

The following list of resources includes the suggested sequence for using this tool:

- Waking Up the Brain worksheet (Motivating Activity)
- Inventing the Lightbulb worksheet (Core Activity 1)
- Persistence discussion (Class Discussion)
- How Well Do You Know Your ABCs? worksheet (Core Activity 2)
- Persistence Self-Evaluation worksheet (Reflection Activity)

The activities and tasks included in this tool should take 60–90 minutes to complete.

TIPS AND VARIATIONS

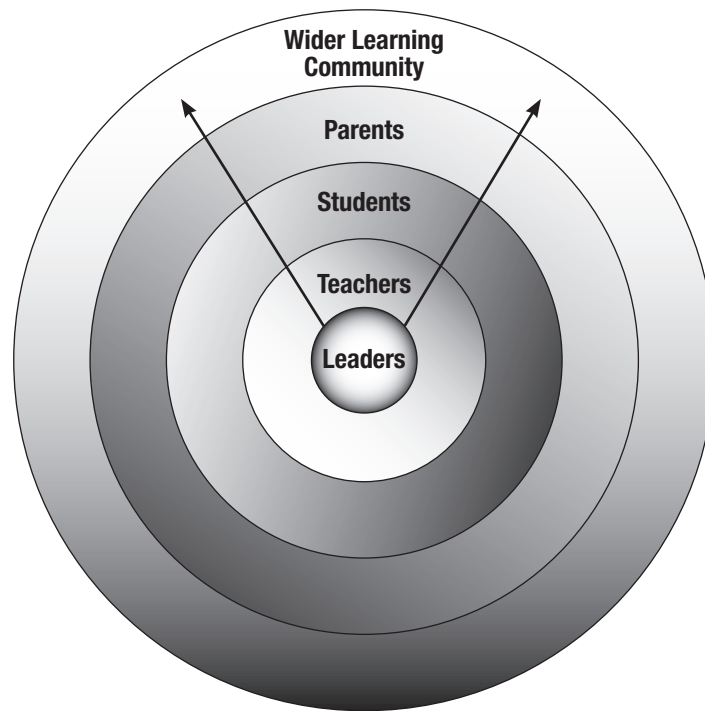
1. Motivating Activity

- Give students the Waking Up the Brain worksheet. Have them work independently to solve the problems. Check after a few minutes to see if students are struggling. If they are, you may wish to provide a few hints, such as the following:

For teaser 1: Think outside the box, literally; that is, think past the lines.

For teaser 2: Use a chart to organize what you know.

For teaser 3: Think of common sayings that incorporate the given words in some way.



When a schoolwide, all-embracing adoption of the habits is complete, students, teachers, and school leaders see the habits as being of great value in everything that takes place across the school. As new developments, projects, and challenges arise in the school, the habits are automatically valued as part of the solution.

HOW TO USE THE ACTIVATION MODEL

The model shows an ideal method for implementing a Habits of Mind program so that it achieves the greatest impact. Leaders introduce the model to teachers. Then a schoolwide program teaches the habits to students. Parents learn from their children and from visits to the school. Leaders, teachers, students, and parents take the message to the community by modeling it.

This section includes a number of methods for setting up a schoolwide program. In addition, it provides teaching strategies, examples, and ideas from actual schools and students—some from elementary school experiences, others from secondary schools. Most, however, apply to both. Additional samples and ideas can be found in the Building Commitment section.



Thinking About Thinking (Metacognition)



PURPOSE OF THIS TOOL

In this tool, students explore whether a person can learn how to think or thinking just comes naturally. They test one model using a life-or-death scenario and then consider how the method might be used in ordinary situations, too. Then students consolidate their thoughts by teaching other students about this Habit of Mind via a brochure. As students flex their metacognitive muscles, they form a deeper understanding of the concept of thinking about thinking and begin to make it a solid Habit of Mind.

The resources in this tool will enable students to

- Discuss the value of learning how to think.
- Explore how using the P-D-R method might increase a person's odds of surviving in an extreme situation.
- Consider how the P-D-R method might be used in other situations.
- Design and create a brochure to teach other students about this Habit of Mind.

HOW TO USE THIS TOOL

The following list of resources includes the suggested sequence for using this tool:

- I Cannot Teach discussion (Motivating Activity)
- The P-D-R Method worksheet (Core Activity)
- I Can Only Make Them Think discussion (Reflection Activity)
- Thinking About Quoting worksheet (Synthesis Activity)

The activities and tasks included in this tool should take 75–90 minutes to complete.

TIPS AND VARIATIONS

1. Motivating Activity

- Write the following quotation on the board:

I cannot teach anybody anything. I can only make them think.

—Socrates, ancient Greek philosopher

- Have students work in pairs to analyze the quote. Mention that Socrates seems to be saying that a person can learn to think. Ask: Do you agree with the statement? Do you believe that is true? Is thinking something we learn how to do, or does it just come naturally? Ask students to support their opinions with examples.