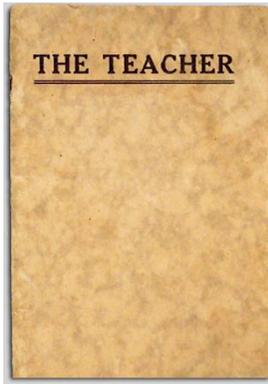


Going "Outside the Lines" to Engage Gifted Learners

Presented by:
Debbie Silver, Ed.D.
<www.debbiesilver.com>



The Teacher

"Concerning a teacher's influence, I have come to the frightening conclusion that I am the decisive element in the classroom. It's my personal approach that creates the climate. It's my daily mood that makes the weather. As a teacher, I possess a tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humor, hurt or heal. In all situations, it is my response that decides whether a crisis will be escalated or deescalated, and a child humanized or dehumanized."

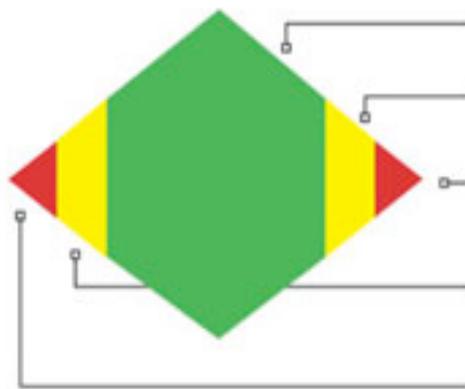
--by Haim Ginott

From: Tamara Fisher, K-12 Gifted Education Specialist



TRADITIONAL RTI MODEL

- RED Intensive intervention for students with significant skill deficits
- YELLOW Targeted intervention for at-risk students
- GREEN Core instruction



PROPOSED GIFTED-INCLUSIVE RTI MODEL

- GREEN Core Instruction
- YELLOW (right) Targeted intervention for at-risk students
- RED (right) Intensive intervention for students with significant skill deficits
- YELLOW (left) Accelerated learning opportunities for advanced students
- RED (left) Intensive individualized learning projects for highly advanced students

Differentiated Instruction – Step One

Objectives: To help teachers focus on important differences among learners in the classroom

To give teachers a starting point from which to begin differentiated instruction

Time: 60 minutes (+ ongoing)

Materials: 5" x 8" note cards

Process:

Distribute stacks of 5" x 8" index cards. Ask teachers to do the following:

Start a 5" x 8" note card for each student in your room.

Put a student's name at the top. On the card list the information such as:

Reading level-

English language proficiency level-

Level of adult supervision and involvement at home-

Strength areas-

Weak areas-

Preferred learning style-

Personal interests-

Least favorite things-

Fears-

Add or delete items as you see fit for your needs. Fill in as much of the information as you can. Begin working to find out about the areas with which you are not familiar. Update and add to the information as you learn more about the student."

Ask that individuals periodically review the information and use it to plan differentiated instruction, assignments, and assessments.

Activity from *Because You Teach: A Dynamic Musical Resource for Innovative Staff Development* (2006) by Kathy Hunt Ullock, Monte Selby, Debbie Silver, Rick Wormeli. Nashville, TN: Incentive Publications.



Self-Efficacy

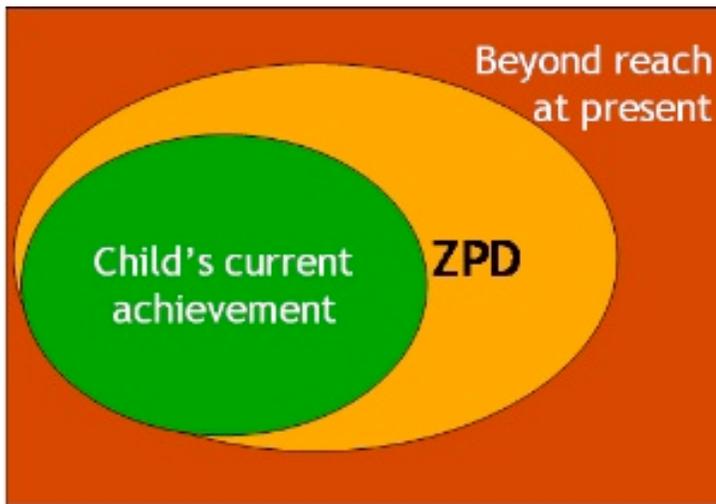
It influences:

- **The CHOICES We Make**
- **The EFFORT We Put Forth!**
- **How long We PERSIST When We Confront Obstacles (and in the face of failure)**
- **How we FEEL**

Albert Bandura (1925 -) popularized the term *self-efficacy*. He defines it as the part of our "self system" that helps us to evaluate our performance. Perceived self-efficacy refers to one's impression of what one is capable of doing. This comes from a variety of sources, such as personal accomplishments and failures, seeing others who are similar to oneself, and verbal persuasion.

Verbal persuasion may temporarily convince people that they should try or avoid some task, but in the final analysis it is one's direct or vicarious experience with success or failure that will most strongly influence one's self-efficacy. For example, a teacher may "fire-up" her students before a standardized test by telling the kids how great they are, but the enthusiasm will be short-lived if the test is completely beyond their ability or their perceived beliefs that they can actually do well.

People with high-perceived self-efficacy try more, accomplish more, and persist longer at a task than people with low perceived self-efficacy. Bandura speculates that this is because people with high-perceived self-efficacy tend to feel they have more control over their environment and, therefore, experience less uncertainty.



Zone of Proximal Development...ZPD

Zone of Proximal Development, an idea developed by Lev Vygotsky over one hundred years ago, seeks to define the process through which students effectively learn in cooperation with a teacher.

A student's Zone of Proximal Development, or ZPD, is defined as the student's range of ability with and without assistance from a teacher or a more capable peer. On one end of the range is the student's ability level without assistance. On the other end of the range is the student's ability level with assistance.

A classroom that makes the best use of all of its students' ZPDs should follow the following guidelines:

- 1 The teacher should act as a scaffold, providing the minimum support necessary for a student to succeed. The idea is to assist without denying the student's need to build his or her own foundation. The challenge for the teacher, then, is to find the optimal balance between supporting the student and pushing the student to act independently. To effectively scaffold the student, the teacher should stay one step ahead of the student, always challenging him or her to reach beyond his or her current ability level. However, if instruction falls outside of the zone (above or below a student's ZPD), no growth will occur.
- 2 To effectively scaffold students within their ZPDs, a teacher should also have an awareness of the different roles students and teachers assume throughout the collaborative process. The roles roughly resemble the following:
 - teacher modeling behavior for the student
 - student imitating the teacher's behavior
 - teacher fading out instruction
 - student practicing reciprocal teaching (scaffolding others) until the skill is mastered by all students in the classroom.



Adapted from: <<http://www.wcer.wisc.edu/step/ep301/Spr2000/Jenna-B/zpd.html>>

ESSENTIAL EIGHT



Name- _____

Instructions: Sign your name by the one task that would be easiest for you to do. Then find a different person to perform one of the remaining tasks and sign his/her name by the task he/she demonstrates. You must have your own signature and those of 7 different people in order to complete the activity.

- _____ 1. **recite a poem from memory.**
- _____ 2. **finish this numerical sequence: 64, 1, 49, 4, 36, 9, 25, _____, and explain the logic behind it.**
- _____ 3. **within 30 seconds name 6 ways to sort rocks into categories.**
- _____ 4. **recall at least one dream from the last 3 weeks.**
- _____ 5. **with hands on head, stand on one foot with eyes closed for at least 7 seconds.**
- _____ 6. **hum the first line of *Silent Night* on key.**
- _____ 7. **honestly say that he/she has more strengths than weaknesses and name 6 strengths in less than 15 seconds.**
- _____ 8. **name five very close friends in less than 10 seconds.**

Checklists for Assessing “How Students Are Smart”

Adapted by Debbie Silver

from *Multiple Intelligences in the Classroom* by Thomas Armstrong

Name of Student- _____

Check all the items that apply:

Linguistic Intelligence (Word Smart)

- 1. Is a good reader.
- 2. Enjoys word games.
- 3. Is a good joke teller/ storyteller.
- 4. Has a good vocabulary for age.
- 5. Enjoys listening activities.
- 6. Likes to write stories and/or poems.
- 7. Communicates with others in a highly verbal way.
- 8. Appreciates rhymes, puns, and/or nonsense words.
- 9. Has a good memory for words, stories, details.

Other linguistic strengths:

Logical-Mathematical Intelligence (Number Smart)

- 1. Asks a lot of questions about how things work.
- 2. Has a good sense of cause and effect.
- 3. Finds math games interesting.
- 4. Can see and repeat patterns easily.
- 5. Enjoys working puzzles and brain teasers.
- 6. Understands computer programming.
- 7. Is a logical thinker.
- 8. Can estimate things involving numbers with relative ease.
- 9. Can work math concepts in head.

Other logical-mathematical strengths:

Visual-Spatial Intelligence (Picture Smart)

- 1. Reports clear, visual images (or dreams).
- 2. Can envision objects from more than one perspective.
- 3. Daydreams more than peers.
- 4. Likes to draw and/or create art projects.
- 5. Has a good eye for detail and color.
- 6. Is good at spatial games like chess and Tetris.
- 7. Likes movies, slides, or other visual presentations.
- 8. Can move between 2-dimensional and 3-dimensional representations with ease.
- 9. Can read and/or create maps.

Other visual-spatial strengths:

Bodily-Kinesthetic Intelligence (Body Smart)

- 1. Is very coordinated.
- 2. Exceptionally mobile: moves, twitches, fidgets, taps when seated for long.
- 3. Enjoys working with clay, fingerpaint, and other tactile media.
- 4. Can mimic others' gestures, posture, and movements.
- 5. Must touch anything new or interesting.
- 6. Loves to take things apart and put them back together.
- 7. Uses dramatic body movements for self-expression.
- 8. Enjoys running, hopping, climbing, wrestling, or similar activities.
- 9. Exhibits fine motor control (crafts, painting, etc.).

Other bodily-kinesthetic strengths:

Musical Intelligence (Music Smart)

- 1. Can detect music that is off-key, off-beat, or disturbing in some way.
- 2. Remembers melodies of songs.
- 3. Taps rhythmically as he/she works or plays.
- 4. Sensitive to environmental noise (rain on the windows, etc.).
- 5. Plays a musical instrument and/or sings in a choir.
- 6. Has a good singing voice.
- 7. Responds favorably when music is played.
- 8. Sings songs that he/she has learned.
- 9. Unconsciously hums much of the time.

Other musical strengths:

Interpersonal Communications Intelligence (People Smart)

- 1. Establishes meaningful peer relationships.
- 2. Seems to be a natural leader.
- 3. Empathizes with others.
- 4. Likes to play with others.
- 5. Shows good teamwork skills.
- 6. Others seek this student's company.
- 7. Has two or more close friends.
- 8. Frequently acts as a mediator and/or peace maker.
- 9. Enjoys teaching others.

Other interpersonal communication strengths:

Intra-personal Awareness Intelligence (Self Smart)

- 1. Displays a sense of strong will.
- 2. Enjoys playing or working alone.
- 3. Has high self-esteem.
- 4. Has a good sense of self-direction.
- 5. Does not mind being different from others.
- 6. Has a realistic view of his/her strengths and weaknesses.
- 7. Is able to deal effectively with successes and failures.
- 8. Has an interest or talent that is not readily shared with others.
- 9. Seems to “march to the beat of a different drummer.”

Other intra-personal awareness strengths:

Naturalistic Intelligence (Nature Smart)

- 1. Likes to identify and classify living and nonliving things in nature.
- 2. Cares for pets or animals.
- 3. Understands repeating patterns in nature and the universe.
- 4. Seems more “in tune with nature” than peers.
- 5. Would rather be outside than inside.
- 6. Has a demonstrated appreciation for a part of the natural world (i.e. dinosaurs, clouds, rocks, etc.).
- 7. Likes to garden and/or appreciates plants.
- 8. Understands and appreciates the environment.
- 9. Loves to collect things from nature.

Other naturalistic strengths

Differentiating Instruction

DIFFERENTIATING CONTENT:

- 1. Use reading materials at varying readability levels.**
- 2. Make text materials available through means other than just reading.**
- 3. Present ideas through both auditory and visual means.**
- 4. Use reading buddies. (Yes, in high school!)**
- 5. Meet with small groups to re-teach an idea or skill for struggling learners or to extend the thinking or skills of advanced learners.**

Using Technology To Differentiate Instruction

To Assess Students' Multiple Intelligences:

- Learning <http://www.chaminade.org/inspire/learnstl.html>
- The One and Only Surfaquarium-- <http://surfaquarium.com/MI/inventory.html>
- Kaliedoscope <http://www.ncwiseowl.org/kscope/>

Verbal/Linguistic (Word Smart)

- Web Development tools -- sharing a poem, myth, legend, news article
- Word processing programs
- Multimedia authoring
- Story creation software (www.fablevision.com)
- CD-ROM interactive books, e-books, text to voice software
- **Create podcasts**
- Reading and interpreting web information
- <http://bubbl.us/>
- <http://voicethread.com>
- DORA- Diagnostic Online Reading Assessment
- The San Diego Quick Reading Assessment
<http://webschool.wash.k12.ut.us/reading/inventory/sandiego.html>

Logical Analytical/Math (Number Smart)

- Calculation tools
- Spreadsheets
- Graphing calculators
- Online data collection
- Science and math websites and software
- Problem solving websites and software
- The Futures Channel <http://www.thefutureschannel.com>

Naturalist (Nature Smart)

- <http://www.plt.org>
- <http://www.projectwild.org>
- <http://www.projectwet.org>

Bodily Kinesthetic (Body Smart)

- Video productions of skits, dances, etc.
- Video analysis of sports and dance moves
- Claymation -- sequence of movement
- Lego Logo and Robotics
- Joysticks, keyboards, and other devices for fine motor control
- Fitness software and interactive games (Wii Fit, etc.)

Visual Spatial (Picture Smart)

- Pics for Learning
- WebQuest Projects
- Multimedia presentations
- www.googlelittrips.com
- www.fablevision.com
- Tom Synder's Timeliner
- Comic art
- Photoshop
- 3D and morphing software
- Scrapbooking, slideshows, clipart, charts, graphs, and tables
- Digital cameras
- Concept mapping tools and diagrams <http://www.text2mind>
- www.inspiration.com
- www.kidspiration.com

Musical (Music Smart)

- Video and audio recording devices (digitalize music)
- Music clips
- Music generation software
- **Music composition software (Garage Band)**
- DVDs and CDs
- Music sharing sites
- www.songsforteaching.com

Interpersonal Communication Skills (People Smart)

- Blogs
- Listservs
- Webquests and collaborative elements
- Peer tutoring
- Social networking
- Collaborative computer software or games
- **Group presentations (PowerPoint/Keynote)**
- Tom Synder's Group Decision software
- Video conferencing

Intrapersonal Awareness (Self Smart)

- **Blogs**
- **Computer-based journaling**
- Computer-based editing
- Multi-media portfolios
- Internet research (self-paced)
- Problem-solving software
- Individual video projects
- Virtual Worlds

Cartesian Diver

Introduction:

The Cartesian Diver was made popular in the 1800's by the philosopher René Descartes. It is commonly found in science classrooms or perhaps you have seen the *Diving Tony* toy distributed in boxes of Frosted Flakes. The Cartesian diver offers an eloquent demonstration of the most unique property of a gas, its compressibility.

Materials:

- One 2-liter plastic bottle with cap
- One glass eyedropper

Procedure:

- 1) Fill the bottle with water.
- 2) Fill a glass with water.
- 3) Draw water into the dropper until it is 2/3 full.
- 4) Place the dropper into the glass of water. If it sinks, adjust the water level until the dropper floats.
- 5) Place the dropper into the 2-liter bottle and screw the cap tightly in place.

Activity:

Hold the bottle in one hand and squeeze. What do you observe? Release the pressure with your hand and observe again.

Questions:

Why does the dropper sink when you apply pressure to the bottle?

As you squeeze the bottle the pressure inside increases. Liquids are not compressible but gases are. Therefore, the air in the dropper compresses and allows more water to flow into the dropper. This increases the weight of the dropper. As the weight increases, the density increases until it becomes greater than the density of water. Objects that have a density greater than water will sink.

Why are gases compressible and liquids not?

In gases the molecules are very far apart compared to their size. In other words, gases are mostly empty space. When put under increased pressure, the gas molecules can move closer together and the gas will occupy less volume.

On the other hands, in liquids the molecules are already crowded very close together. Since there is no empty space between the molecules, an increase in pressure cannot cause a decrease in volume.

Remote Control Cartesian Diver

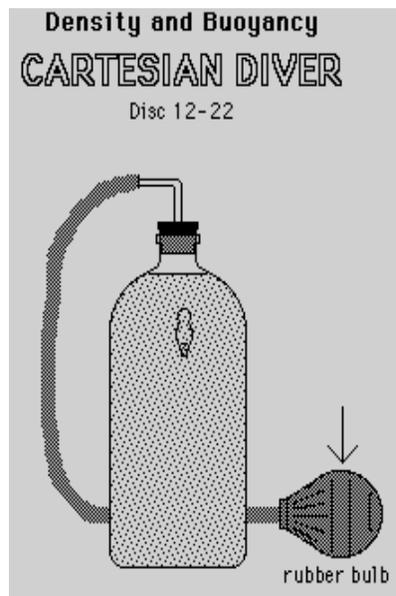
By Dr. Bill Deese, Louisiana Tech University

You can amaze your students by operating your Cartesian Diver by "remote control." Start with the standard Cartesian Diver set-up. Drill a hole in the bottle top just large enough to accommodate a piece of aquarium tubing. Use another bottle (any size, but smaller is usually more convenient). Drill a hole in its cap also large enough to accommodate the aquarium tubing. Fill the second bottle with water and insert a piece of aquarium tubing 3 or more feet long inside each bottle.

By squeezing the small bottle, you will increase the pressure in it. The increased pressure in the small bottle will result in an identical increase in pressure in the large bottle, thus sending the Cartesian Diver to the bottom of the large bottle by a "remote control" device.

Some sneaky teachers we know even hide the "remote control" so that they can seemingly command the Cartesian Diver to dive by voice control alone. We highly recommend this procedure! It really causes the students to think about what is happening.

This activity demonstrates the principle that pressure is the same throughout a fluid.



Logical Analytical/Linguistic

Science Fact Sense

	= Number of	
a.	3	= N O B in the M E
b.	7	= N O C in the R
c.	206	= N O B in the AS
d.	6	= N O S on a S
e.	1	= N O C in P
f.	4	= N O C in the H H
g.	3	= N O A in a WM
h.	3	= N O B P on an I
i.	93	= N O M M from the E to the S
j.	46	= N O C in most H C

Additional Resource for Science/Math Connections to Real Life
The Futures Channel: <http://www.thefutureschannel.com>

DIFFERENTIATING PROCESS:

1. Use tiered activities through which all learners work with the same important understandings and skills but proceed with different levels of support.
2. Provide interest centers that encourage students to explore subsets of the class topic or particular interest to them.
3. Develop personal agendas to be completed either during a specified agenda time or as students complete work early.
4. Offer manipulatives or other hands-on supports for students who need them.
5. Vary the length of time a student may take to complete a task in order to provide additional support for a struggling learner or to encourage an advanced learner to pursue a topic in greater depth.



Project Learning Tree (PLT) is an award-winning environmental education program designed for teachers and other educators, parents, and community leaders working with youth from grades PK-12. PLT uses the forest as a "window" on the world to increase students' understanding of our environment; stimulate students' critical and creative thinking; develop students' ability to make informed decisions on environmental issues; and instill in students the commitment to take responsible action on behalf of the environment. <http://www.plt.org/>

project WILD

Project W.I.L.D./Aquatic Project WILD is an interdisciplinary, supplementary environmental and conservation education program for educators of grades K-12. The program emphasizes wildlife because of its intrinsic and ecological values, as well as its importance as a basis for teaching how ecosystems function. <http://www.projectwild.org/>



Water Education for Teachers

Project W.E.T. Project WET (Water Education for Teachers) is a nonprofit water education program and publisher for educators and young people ages 5-18. The program facilitates and promotes awareness, appreciation, knowledge, and stewardship of water resources through the dissemination of classroom-ready teaching aids and establishment of internationally sponsored Project WET programs. <http://www.projectwet.org/>

BARFS/NOT BARFS

These Are Barfs:

Speedily

Gracefully

Twice

Finally

These Are NOT Barfs:

Spacious

Grapefruit

Quest

Comply

A Barf is - _____

Which of These Are Barfs?

Scholarly

Quickly

Fly

Often

Quite

Really

Under

Beautiful

Presentation of Selected Novel

Assessment Goals:

- Describe the major characters in the novel.
- Identify the setting including both time and place(s).
- Summarize the key theme of the novel.
- Highlight a climatic scene from the novel and explain its importance.
- Discuss what kinds of audiences would most benefit from reading this novel.

Date- _____ Title- _____

Group Member(s): _____

PRESENTATION OR MODEL (25 points)- _____

- Described the major characters in the novel.
5 4 3 2 1
- Identified the setting including both time and place(s).
5 4 3 2 1
- Summarized the key theme of the novel.
5 4 3 2 1
- Highlighted a climatic scene from the novel and explained its importance.
5 4 3 2 1
- Discussed what kinds of audiences would most benefit from reading this novel.
5 4 3 2 1

TEACHING METHOD: (15) - _____

- Activity taught the concepts correctly.
5 4 3 2 1
- Activity promoted learning .
5 4 3 2 1
- Activity demonstrated an understanding of the novel.
5 4 3 2 1

ORAL PRESENTATION: (20) - _____

- Each group member had a part.
5 4 3 2 1
- Parts were clearly stated (not read).
5 4 3 2 1
- Parts were equitably divided among group members.
5 4 3 2 1
- Information was accurate and thoroughly presented.
5 4 3 2 1

TOTAL SCORE - _____

COMMENTS: -

Differentiating Instruction

PRODUCT:

Different Ways to Find Out What Students Understand

Make a chart or diagram
Write a letter to the editor
Conduct a discussion
Create an advertisement
Write an essay
Participate in a simulation
Create a poem
Do a photo essay
Create an invention
Teach someone else
Write an analogy
Participate in a mock trial
Design and teach a class
Devise a new recipe
Write a monologue
Illustrate a math concept
Do a multimedia presentation
Write a diary from the perspective of someone else

Do a demonstration
Make a scrapbook
Participate in a debate
Make an editorial video
Design a structure
Develop a collection
Write and do a rap
Design a game
Present a news report
Judge an event
Conduct an interview
Create cartoons
Create a flow chart
Give a performance
Defend a theory
Create a brochure
Develop an exhibit
Set up a system of checks and balances

Create a dance
Design a Web Quest
Create a puppet show
Keep a journal log
Create a report
Make a plan
Make a mural
Create a new product
Do an experiment
Make a model
Develop a rubric
Write a book
Make a learning center
Draw a blueprint
Do a self-assessment
Solve a mystery
Critique a book
Do a Gallery Walk (Carousel Walk)



Critical Thinking and the Magic Tube

By William Deese
Louisiana Tech University

Description: A large cylinder with cords protruding from four holes is shown to the audience. When each cord is pulled, sometimes surprising results are obtained. The audience is challenged to explain how the magic tube is constructed.

Materials: 2-foot section of 2-inch PVC pipe
(2) 2-inch caps for the PVC pipe
7-foot section of 1/4-inch cord
(1) 1-inch metal ring

Construction:

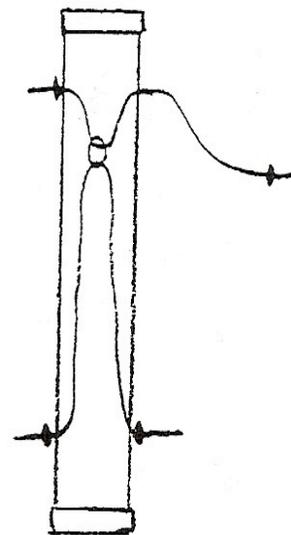
- 1) Drill a 1/4 inch hole in the tube 3 inches from one end. Rotate the tube 180 degrees and drill another hole exactly opposite to the first one.
- 2) Drill two holes at the other end in analogous positions.
- 3) Cut the cord into 4-foot and 3-foot lengths.
- 4) Thread the 4-foot cord through a hole, through the metal ring, and out the hole on the opposite side.
- 5) Tie knots near each end of the cord.
- 6) Position the ring in line with the holes at the other end of the tube and thread the 3-foot cord through both holes and the ring.
- 7) Tie knots about 3 inches from each end of the second cord.
- 8) Pull one end of the long cord out and cut about 12 inches off. Tie knots about 3 inches from each end.

Procedure:

- 1) Display the magic tube to your audience and pull one of the cords. Then pull the end exactly opposite the first one you pulled.
- 2) Now pull one of the cords at the other end and observe.
- 3) Continue to pull various ends of the cords while your audience tries to figure out how the magic tube works.
- 4) If your audience is a class, ask them to design their own tubes. There may be more than one design that works.

Hazards: Be careful when drilling the holes in the PVC pipe.

Reference: A hand-out by Bruce Hogue, Dustan Middle School



Problem-Based Learning

We have all heard young children repeatedly ask their mothers "why" questions. "Why is spaghetti sauce red?" "Why do bunnies have fur?" or "Why is Grandma's skin wrinkled?" It seems natural and healthy for children to ask questions. So what happens to that inquisitiveness between the ages of two and twelve? By the time children are in middle school it seems as if learning is torture. Teachers continually ask themselves and their colleagues, "How can I make learning more interesting for my students?" One option for teachers is problem-based learning.

What Is Problem-Based Learning? Problem-Based Learning (PBL) is an instructional strategy that bases learning around a real-world problem rather than on a particular discipline. The strategy came about in the early 1970s in medical schools and has proven to be so effective that it has made its way into K-12 instruction.

The idea is to teach students to learn how to learn. By having to solve problems, students practice learning rather than merely memorizing. Amazingly enough, the students are not only introduced to facts while solving the problem, but they remember them because the facts are no longer a collection of random information--rather they are meaningful and relevant to solving actual problems. Students learn to apply new information to solve problems.

How Does PBL Work? To begin, the students are given an ill-structured problem. An ill structured problem is a clearly defined problem that has just enough information to provoke an investigation. The students should not have enough prior knowledge to solve the problem on their own. This problem should have more than one "correct" answer as the answer will most likely change as more information is found.

Furthermore, it is important that the problem be meaningful to the students. They should be able to relate to the issue at hand. When students bring questions to the issue, they will be more compelled to solve the problem and more likely to retain the information they find.

Students should then discuss the problem and record all their prior knowledge. Based on what the students already know, each group or individual can make a hypothesis or working statement, which is likely to change as more information is deducted through research. Next, students will brain storm a list of questions that need to be answered in order to solve the problem.

Students will use resources (e.g., Internet, encyclopedias, periodicals, experts, etc. . . .) to answer these questions. It is most desirable for the teacher to have already decided on what resources the students will use. This way the teacher can notify the school library and/or gather resources in the classroom that will aid in the students' discovery. This approach also saves students from searching through useless materials.

This simple chart can help students keep their objectives in order.

What do I know?	What do I need to know?	How will I find it?
-----------------	-------------------------	---------------------

What Is the Teacher's Role in PBL? In a Problem-Based Learning scenario the teacher's traditional role changes, and some teachers may need some time to adjust. No longer is the teacher and text the source of all knowledge in the classroom. The role of the teacher in a PBL classroom is as a coach or guide.

The teacher should not expect students to be effective problem solvers right away. Since learning to solve problems is one of the main goals of PBL, students will need to be guided during the searching and solving process. By asking questions along with the students, a teacher can serve as a model problem solver. As students get better at problem solving, the teacher's involvement may change slightly.

However, there is a fine line between guiding and modeling and being overly involved. If the teacher guides all the students in the same direction, the students will assume there is only one correct answer and will most likely try to figure out what answer the teacher wants. Also, the students will not take ownership of the problem if the

teacher does the work for them. Therefore, it is important that the teacher allows students to question things differently.

Retrieved from Ambient: Problem-Based Learning
<http://www.rsmas.miami.edu/groups/niehs/ambient/teacher/Tpbl.html>

Why Use PBL?

To learn collaboration, work in teams.

To learn critical thinking, take on complex problems.

To learn oral communication, present.

To learn written communication, write.

To learn technology, use technology.

To develop citizenship, take on civic and global issues.

To learn about careers, do internships.

To learn content, research and do all of the above.

The Inquiry Process



Teaching Thru D.I.

Teach-Nology the Web Portal for Educators:

http://www.teach-nology.com/currenttrends/alternative_assessment/

CEC Information Center on Disabilities and Gifted Education:

<http://ericec.org/faq/gt-nurt.html>

Multiple Intelligence Resources for Teachers:

<http://www.proteacher.com/040009.shtml>

Tiered Curriculum Project

http://www.doe.state.in.us/exceptional/gt/tiered_curriculum/welcome.html

Adapt Lessons to Reach All Students

<http://www.teachervision.fen.com/teaching-methods/special-education/3759.html>

Enhance Learning With Technology

<http://www.enhancelearning.ca>

CAST Differentiated Instruction

http://www.cast.org/publications/ncac/ncac_diffinstruc.html

Debbie Silver's Hand-outs

<http://www.debbiesilver.com>

Login password: iamateacher

California Department of Education's Taking Center Stage –

Act II <http://pubs.cde.ca.gov/tcsii/index.aspx>

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