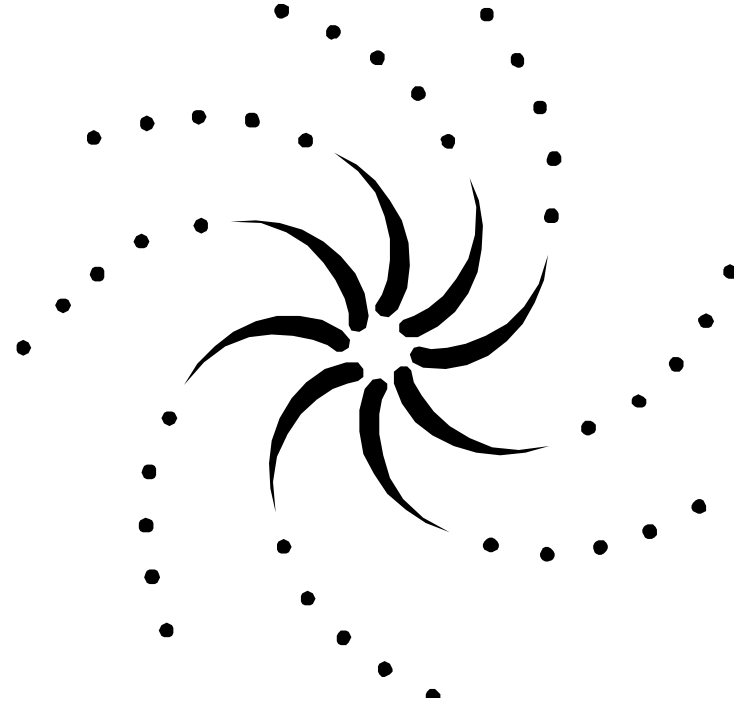




# LEARNING THEORIES



# Activity - Instructions



⌘ Following these instructions are some slides. When you see the slide, say the color out loud.

Reed

**Yellow**

**Blue**





**Green**

**Purple**



Orange



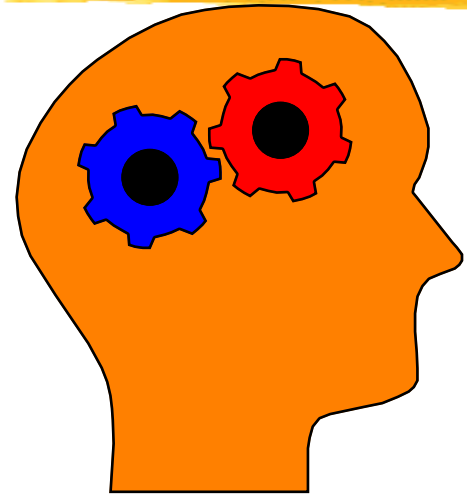
# Were you confused?



- ⌘ The instructions, asking you to “say” the color, were purposefully ambiguous.
- ⌘ The right side of your brain recognizes the color used to print the words.
- ⌘ The left side of your brain decodes the letters of the color words.
- ⌘ Confusion exists when we use words that send conflicting messages to our brains.

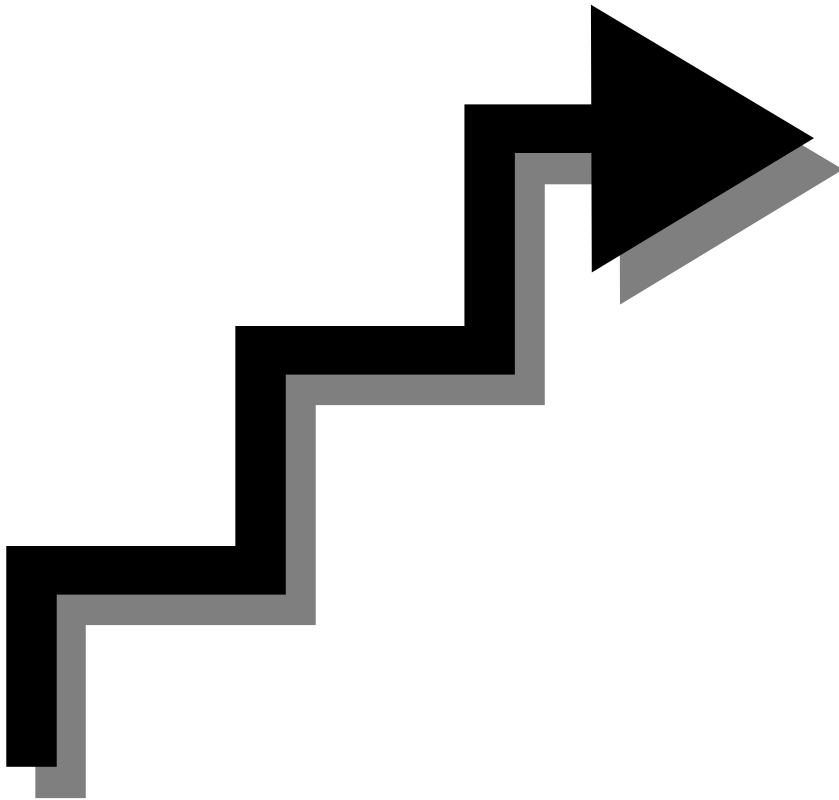
# Using Your Whole Brain

- ⌘ Your brain has two hemispheres: right and left
- ⌘ Both hemispheres function together to help you learn
- ⌘ Unfortunately, much of formal education relies on learning that stimulates your left hemisphere and ignores the right



# Two halves of the Brain

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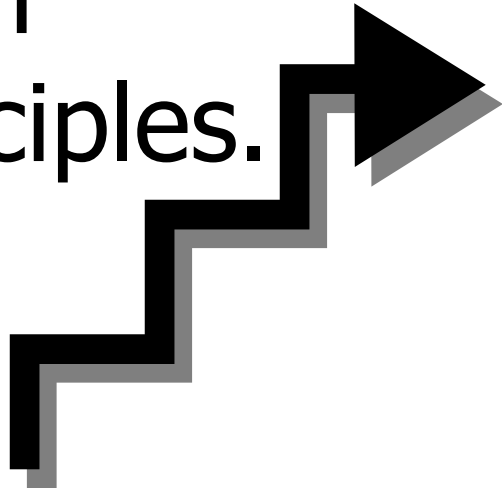


- ⌘ Left Brain  
controls speech,  
logical thinking  
and the right  
side of the body.

# Using Your Whole Brain

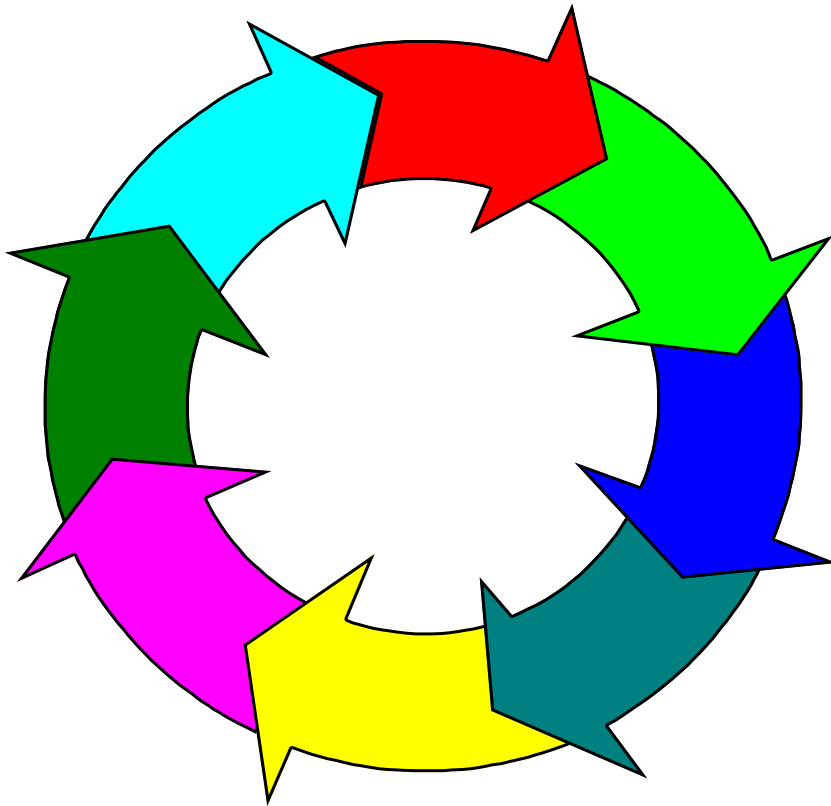


⌘ Schools and work places operate on left brain principles.



- ⌘ Structure
- ⌘ Routine
- ⌘ Sequencing
- ⌘ Orderly processes
- ⌘ Deadlines
- ⌘ Working alone

# Two halves of the Brain

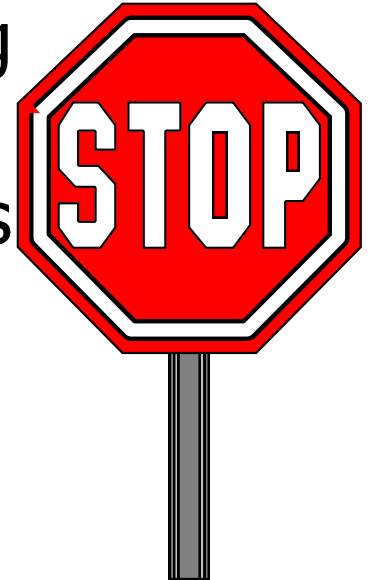


⌘ The right brain controls spatial perception, pattern recognition, and the left side of the body.

# Using Your Whole Brain

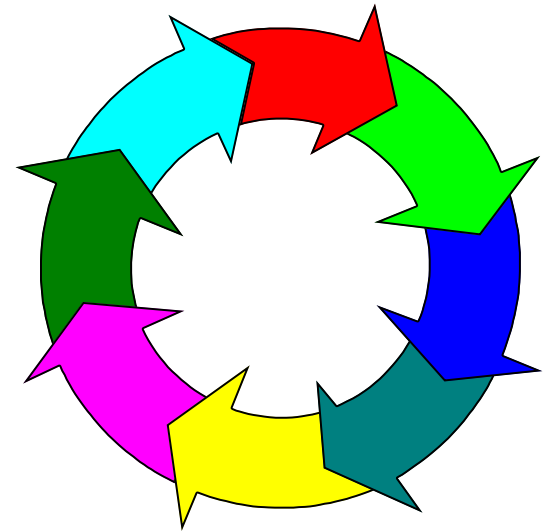
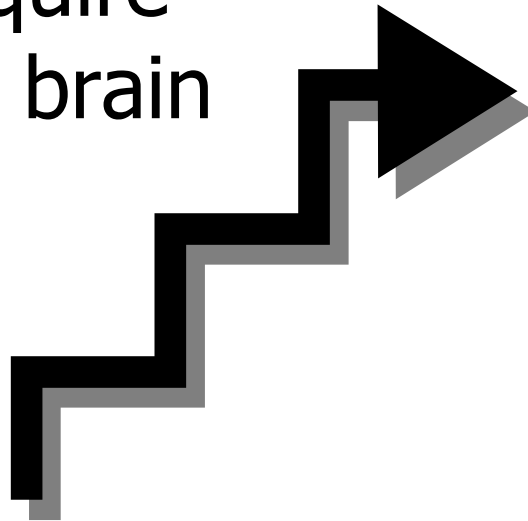
⌘ What happens when we ignore the learning possibilities of the right side of the brain?

- ⌘ Limit creativity
- ⌘ Create learning barriers
- ⌘ Create boring learning environments
- ⌘ Limit human potential



# Instructional Design Solution

⌘ Provide a mix of learning activities and assessment tasks that require right and left brain processing.



# Brain Based Learning



⌘ The brain needs to be fed a nutritional diet but that alone is not enough.

⌘ <http://www.funderstanding.com/content/brain-based-learning>



# VAKT Styles

Visual



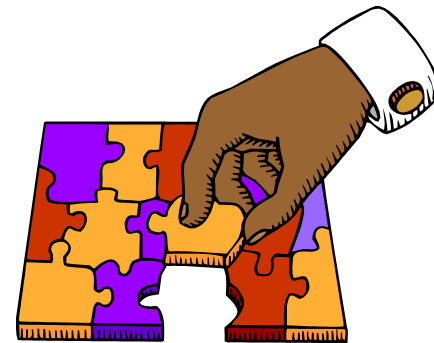
Kinesthetic

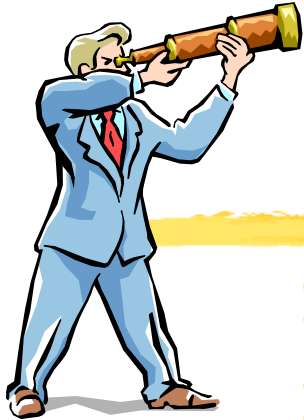


Auditory



Tactile





# Visual Learners

- ⌘ Prefer demonstrations.
- ⌘ Learn through descriptions.
- ⌘ Write things down to remember and to organize thoughts.
- ⌘ Recognize words and faces.
- ⌘ Tend to be imaginative.
- ⌘ Tend to be distracted by movement or action in the classroom.
- ⌘ Tend to be unaware of noise.
- ⌘ Remember what they see.



# Auditory Learners

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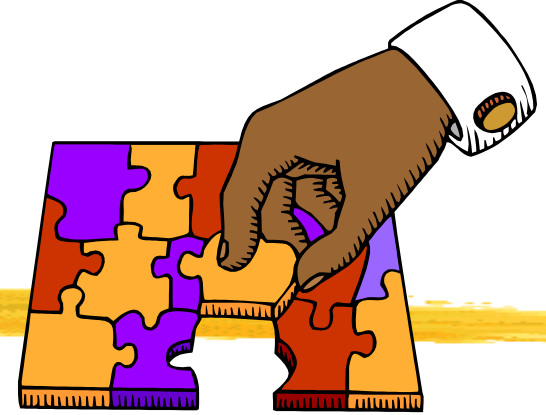
- ⌘ Prefer verbal instructions.
- ⌘ Learn by listening.
- ⌘ Enjoy dialogues, discussions, and plays.
- ⌘ Tend to remember names.
- ⌘ Work out solutions or problems by talking them out.
- ⌘ Are distracted by noise; need to work where it is quiet.
- ⌘ Remember things they hear.

# Kinesthetic Learners



- ⌘ Need to be involved or active.
- ⌘ Tend to have high energy levels.
- ⌘ Think and learn best while moving.
- ⌘ Tend to lose much of what is said during lectures.
- ⌘ Experience problems when asked to sit and read quietly for long periods of time.
- ⌘ Prefer to do rather than watch or listen.
- ⌘ Remember things they do or perform.

# Tactile Learners



- ⌘ Take notes during a lecture or when reading something new or difficult .
- ⌘ Like to draw or doodle to remember.
- ⌘ Like hands-on activities such as projects, demonstrations, or labs.
- ⌘ Like to fiddle with or touch things.
- ⌘ Remember what they handle.

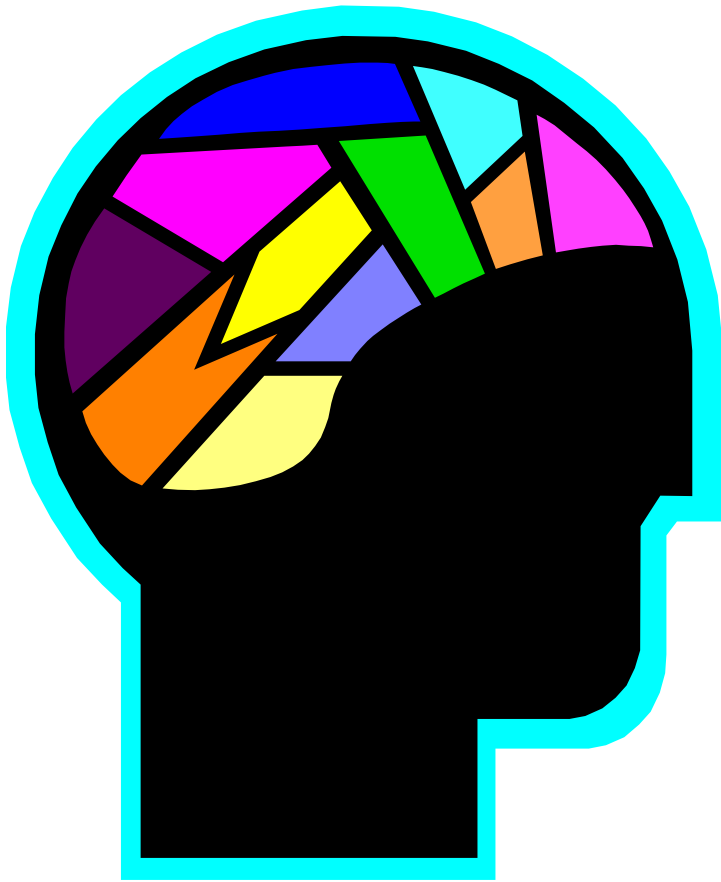
# Accelerated Learning



⌘ Learning is a relaxed, enjoyable experience in which tension disappears and in which the whole brain is united during the learning process.

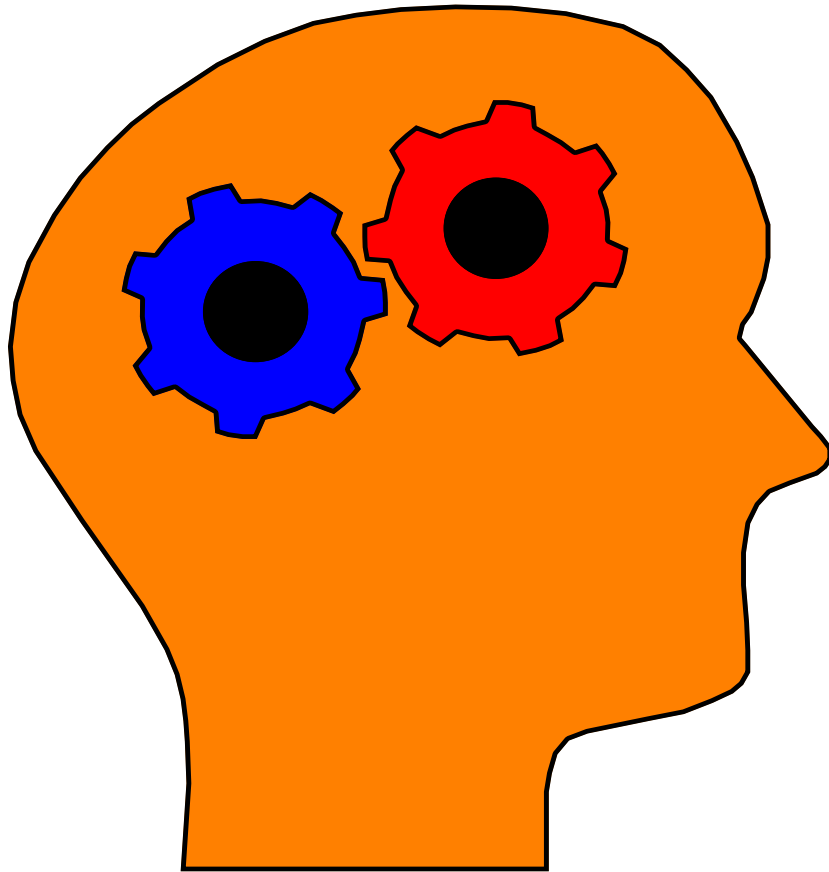
# Accelerated Learning

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- ⌘ New material is presented so that it can be simultaneously absorbed by both the conscious and subconscious mind.

# Accelerated Learning



⌘ Design learning activities that create vivid, memorable associations which trigger long-term memory in a very short time.



# Accelerated Learning



Use:

- ✓ memory strategies, visualization,
- ✓ music,
- ✓ manipulatives,
- ✓ games,
- ✓ suggestion techniques (concert review),
- ✓ environmental peripherals (art, color, posters)

# Multiple Intelligence

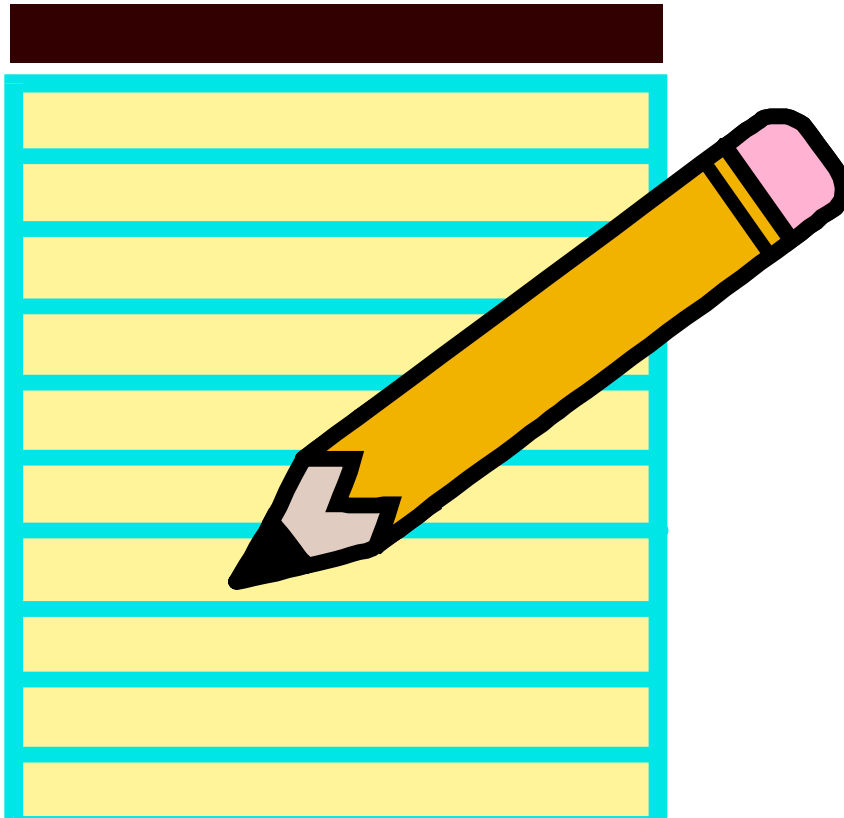


⌘ “An intelligence is the ability to solve problems, or to create products that are valued within one or more cultural settings.”

Dr. Howard Gardner  
Multiple Intelligence Theory

# Multiple Intelligence

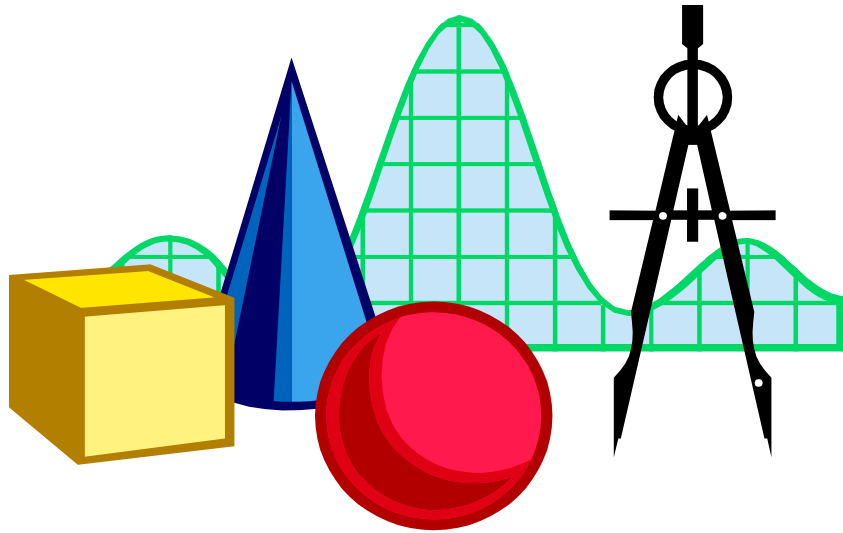
## Verbal Linguistic



- ⌘ Involves fluency and skills in language: reading, writing, editing, listening, expression and elaboration.
- ⌘ Use stories, vocabulary, oral reading, questioning, etc.

# Multiple Intelligence

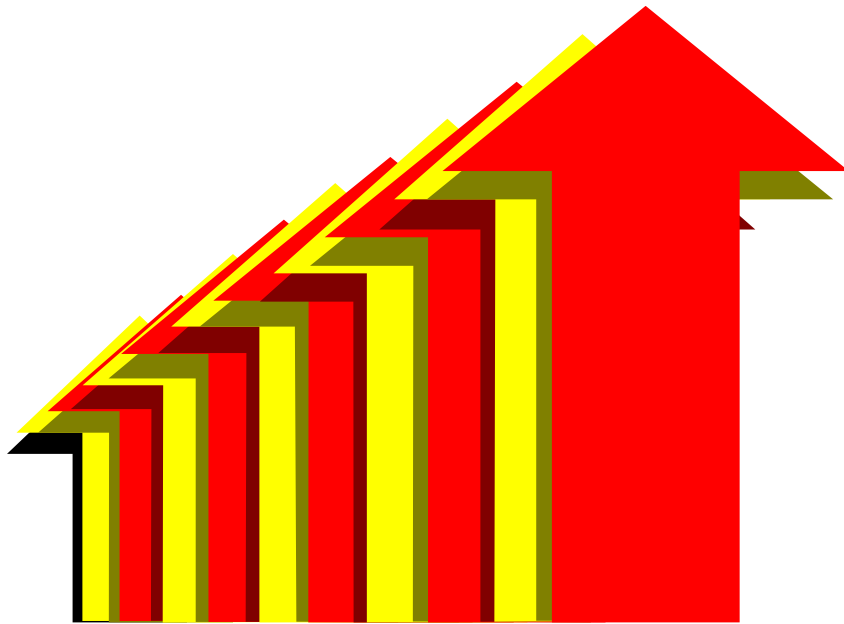
## Visual Spatial



- ⌘ Focuses on learning through images, pictures, charts, graphs, diagrams, and art.
- ⌘ Use visual methods: films, slides, videos, mind-mapping, models, stencils, color, etc.

# Multiple Intelligence

## Logical-Mathematical



- ⌘ Involves looking for patterns, relationships, and sequence.
- ⌘ Provide facts, data, logic problems, games, kits, puzzles, classifying, and organizing activities.

# Multiple Intelligence

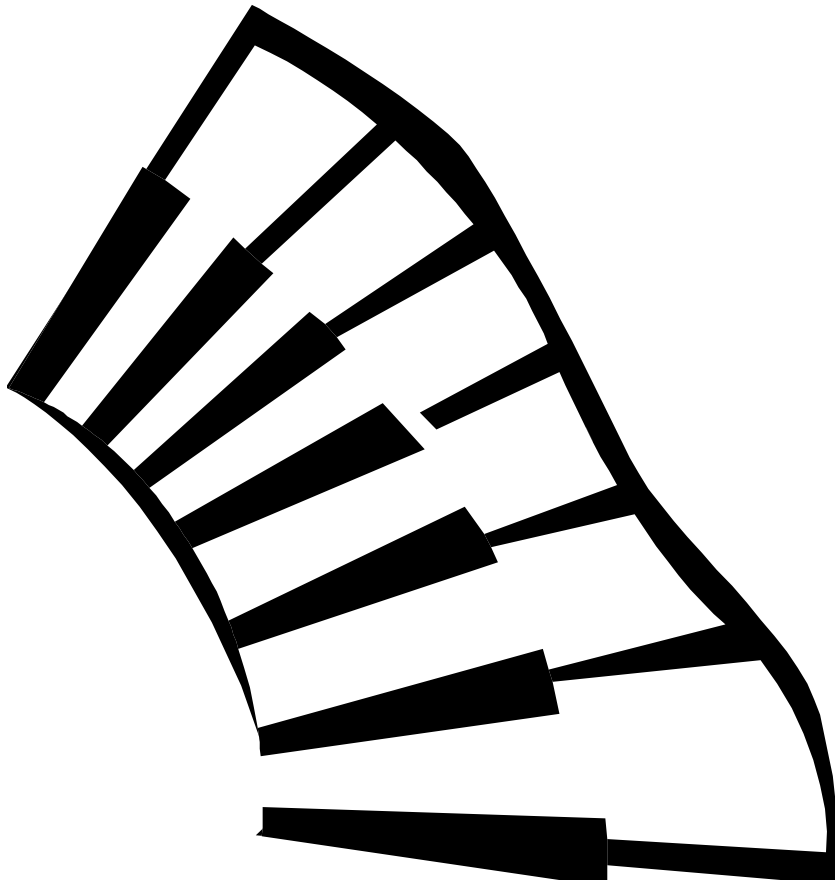
## Body-Kinesthetic



- ⌘ Focuses on learning through movement, touch and doing.
- ⌘ Use manipulative, role play, simulations, physical exercise, games, competitive sports, hands-on activities, etc.

# Multiple Intelligence

## Musical-Rhythmic



- ⌘ Relies on rhythm, melody, and sound for learning.
- ⌘ Use instruments, rap, sound, song, beat, background music, etc.

# Multiple Intelligence

## Interpersonal Intelligence



- ⌘ Involves learning through interaction and cooperation with others.
- ⌘ Use group work and group projects, discussion, case studies, chat rooms, agree/disagree, jigsaw, etc.



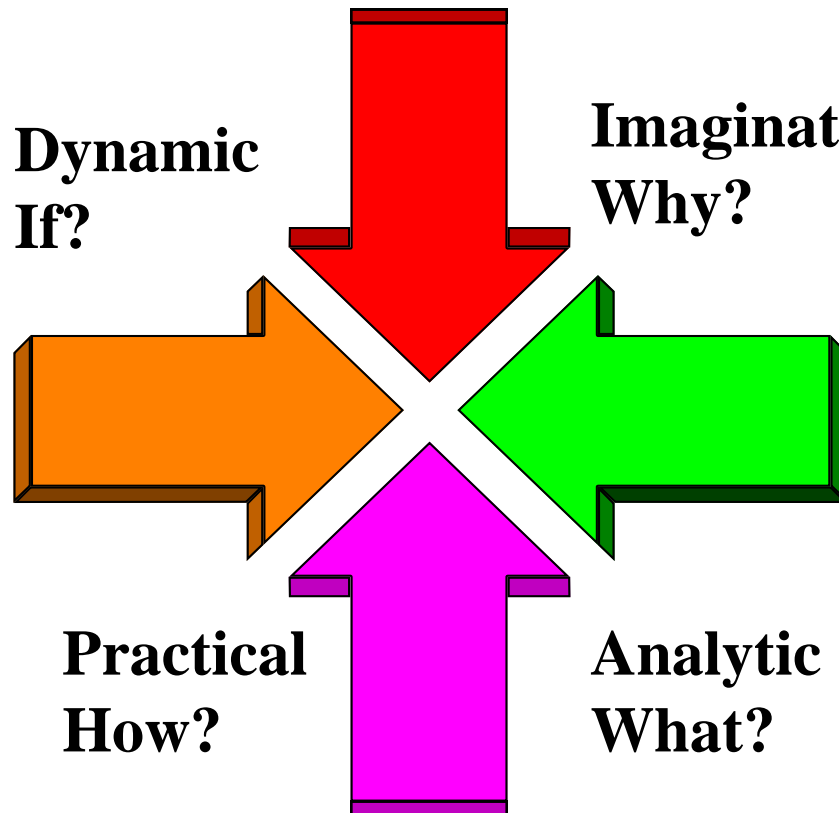
# Multiple Intelligence

## Intrapersonal



- ⌘ Involves self-directed, independent, reflective learning.
- ⌘ Provide opportunities for visualization or guided imagery, self-assessment, reflection questions, etc.

# Learning Styles



⌘ Four learning styles

⌘ We tend to have a “favored” style.

⌘ As teachers we should structure our learning and assessment to meet the needs of all four types.

# Quadrant One: Imaginative



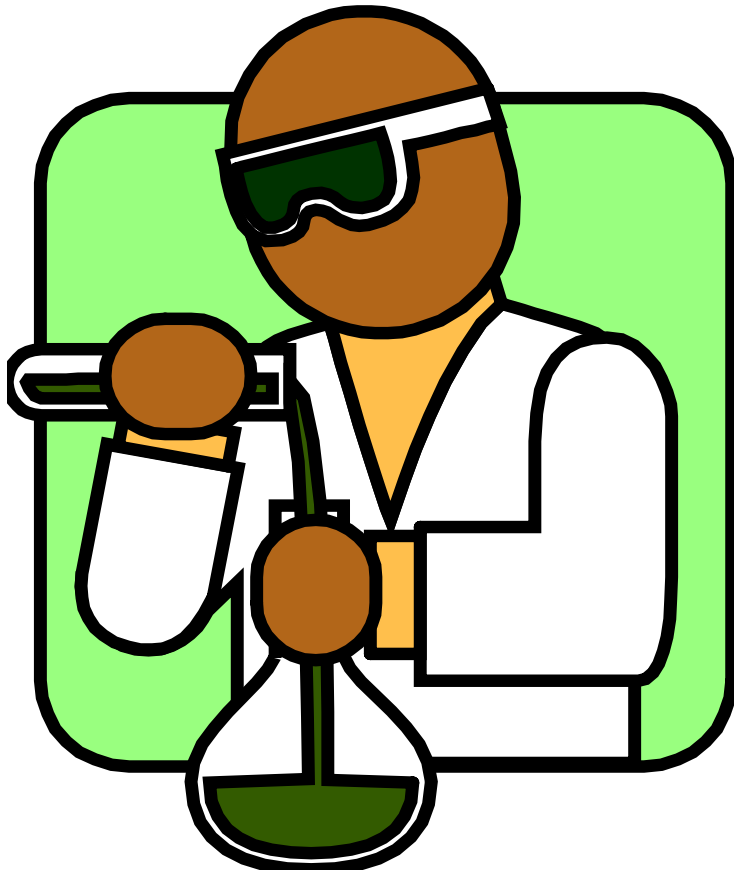
- ⌘ Needs the “hook.” Why do I have to learn this? Why is this important? How does it connect with my life?
- ⌘ Choose an activity that connects the student with what he/she knows to the new learning.
- ⌘ Activity Ideas

# Quadrant Two: Analytical



- ⌘ Values content and expertise. Learners need to examine facts and concepts. They need to know “what.”
- ⌘ Use activities that build content knowledge and concepts.
- ⌘ Activity Ideas

# Quadrant Three: Practical



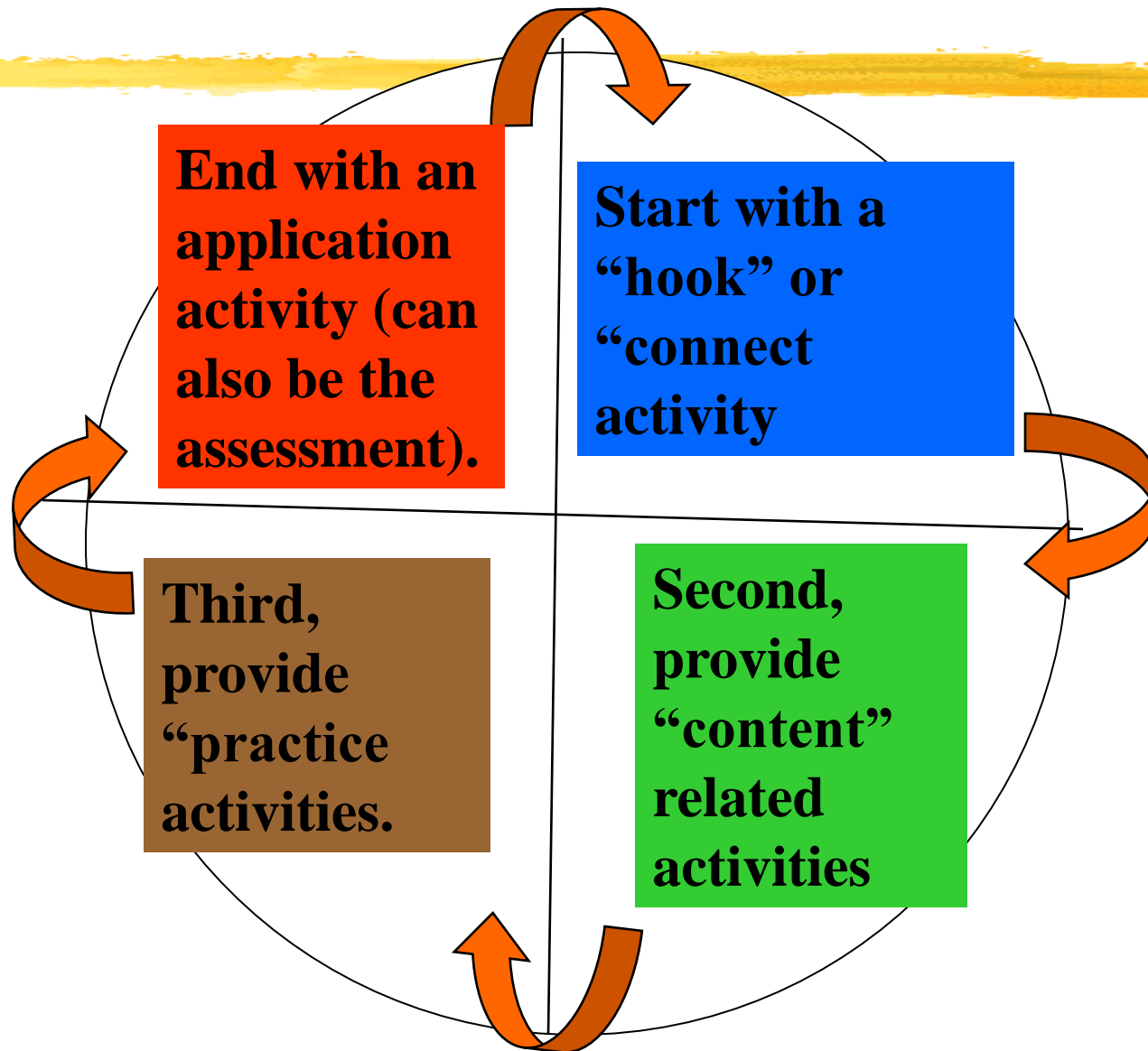
- ⌘ Wants to know “how” something works. They need to practice.
- ⌘ Use hands-on experiences that allow learners to “tinker” with what they need to learn.
- ⌘ Activity Ideas

# Quadrant Four: Dynamic



- ⌘ Learns by trial and error. They need to apply the new learning to their lives and experiences and make it useful for themselves.
- ⌘ Use experiences that let them create new forms and ideas.
- ⌘ Activity Ideas

# Learning Cycle



# Conclusions



- Theories about learning have contributed to improving the quality of learning.
- Students learn best when they can address learning in ways they trust.
- Learning styles research provides educators with tools to create learning experiences for the variety of ways in which people approach learning.