

Multiple Intelligences

How are we each
individually
smart?



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Introduction

The mission of Cañon Exploratory School is to guide students in reaching their greatest potential by providing learning experiences which honor and challenge individual learning styles and intelligences. Our school is designed after the extensive educational research of **Howard Gardner (Multiple Intelligences)** and **William Glasser (Choice Theory and The Quality School)**. Howard Gardner provides us with a language for talking about the inner gifts of children.



"It is of the utmost importance that we recognize and nurture all of the human intelligences, and all of the combinations of intelligences. We are all so different largely because we all have different combinations of intelligences. If we recognize this, I think we will have at least a better chance of dealing appropriately with the many problems that we face in the world."

-Howard Gardner (1987)

Some key points to remember when talking about multiple intelligences are:

1. Each person has all eight intelligences.
2. Most people learn to use and become adequate using all eight intelligences.
3. All intelligences work together.
4. There are many different ways to be intelligent in each category.

Expert Howard Gardner answers questions on multiple intelligences:



What is intelligence?

Howard Gardner: I consider intelligence an ability to solve problems or to fashion products that are valued in at least one culture. Intelligence is always viewed with reference to what a community values—and if a community comes to value something, it becomes smart. If a community stops valuing something, it's no longer smart

How does the theory of multiple intelligences work?

Howard Gardner: All of us are members of the same species, and the species has evolved to be able to do these seven kinds of information processing—language, logic, music, and so on—reasonably well. Now, it doesn't mean that every person is equally good in all of the intelligences. In fact, I would expect most people would have rather bumpy profiles, being better in one intelligence and worse in the others.

Is multiple intelligences theory just another way of labeling students?

Howard Gardner: When you are beginning to do multiple intelligences, you might want to call Sally spatial and Johnny musical, and I don't think that's too problematic. But I would hate to think that ultimately the use of the theory is just another way of labeling people. It's a way into trying to think about them in a more comprehensive and differentiated way. One thing which is very mischievous is to assume that certain kinds of groups—groups by gender, by race, by culture, by ethnicity—feature certain kinds of intelligences. Everything I know and everything I believe says that the variations among intelligences are far, far greater within any group than there would be variations between groups. And so I would be very suspicious of any claim that we have these kinds of kids in this country and our class, and therefore we are going to use this kind of intelligence. Human beings differ from one another quite independently of the color of their skin or the languages their grandparents spoke—and multiple intelligences is a way of disaggregating people, showing ways in which they differ from one another. It's not a way of aggregating people so we can put labels on them.

How do the multiple intelligences encourage student individuality?

Howard Gardner: Well, I think one thing that you would see right off the bat is that we aren't all being looked at through one yardstick. All of a sudden something which may be in the school you went to before was either ignored or was considered to be the only thing important becomes part of a much wider tapestry. In that sense it is more democratic, because nobody is better than everybody else at everything and nobody is worse than everybody else at everything.

Multiple Intelligences

Multiple Intelligences Theory was pioneered by Dr. Howard Gardner in the late 1980's. The theory states that education has been limited in their definition of what 'intelligence' means by focusing on language arts (linguistic) and mathematics (logical/mathematical). Through his research at Harvard University, Dr. Gardner has identified eight individual intelligences: Linguistic, Logical Mathematical, Musical, Visual/Spatial, Body/Kinesthetic, Naturalist, Interpersonal and Intrapersonal.

In a traditional school setting, if a student did not have strengths in linguistic or logical/mathematical intelligences, they often 'failed'. Standardized testing focuses on these two intelligences, yet we all know that out in the real world, all the other intelligences are critical as well, and connected with success.

At Cañon Exploratory School we address each child's strength and help them strengthen their weaknesses to create capacities in all intelligences. We accomplish this in classroom instruction by presenting information and practice through a variety of activities. On Friday afternoons, students rotate through Multiple Intelligences Labs.

Your children know the multiple intelligences as: word smart, art smart, number smart, body smart, nature smart, music smart, people smart, and self smart.

Gardner, H. (1993). *Multiple Intelligence: The theory in practice*. New York: HarperCollins Publishers.

Multiple-Intelligences In Focus...

Linguistic Intelligence-refers to the capacity to use language as a mode of expression and communication:

- ◆ Recalling information, reading, writing
- ◆ Humor, persuasion, storytelling
- ◆ Word meaning, comprehension

Visual/Spatial Intelligence-refers to the capacity to think in 3-dimensional terms:

- ◆ Ability to create internal mental pictures
- ◆ Identify line, color, texture, balance, form

Musical Intelligence-refers to the capacity to appreciate a variety of musical forms:

- ◆ Use music as a form of expression
- ◆ Identify pitch, rhythm, tempo
- ◆ Create melodies and rhythms

Body/Kinesthetic Intelligence-refers to the capacity to use body movements skillfully as a form of expression or to work creating or manipulating objects:

- ◆ Coordinated, agile, flexible
- ◆ Gestures and facial expressions used in communications
- ◆ Theatrical, athletic

Interpersonal Intelligence-refers to the capacity to appropriately and effectively communicate:

- ◆ Genuine understanding of people, empathy
- ◆ Organizing groups, motivating
- ◆ Mediations, negotiations, insightful

Intrapersonal Intelligence-refers to the capacity of self-knowledge:

- ◆ Accurate assessment of ones own strengths/weaknesses
- ◆ Self-disciplined, introspective, intuitive
- ◆ Self-directed and motivated

Naturalist Intelligence-refers to the capacity recognize plants, animals, environmental elements such as clouds and rocks:

- ◆ Identification, classification, experimenting
- ◆ Natural phenomena (volcano, flood, etc.)
- ◆ Space, water, landforms, habitats

Logical/Mathematical Intelligence-refers to the capacity to think logically:

- ◆ Problem-solving, brainstorming
- ◆ Recognizing abstract patterns, categorizing
- ◆ Inventing, questioning, predicting

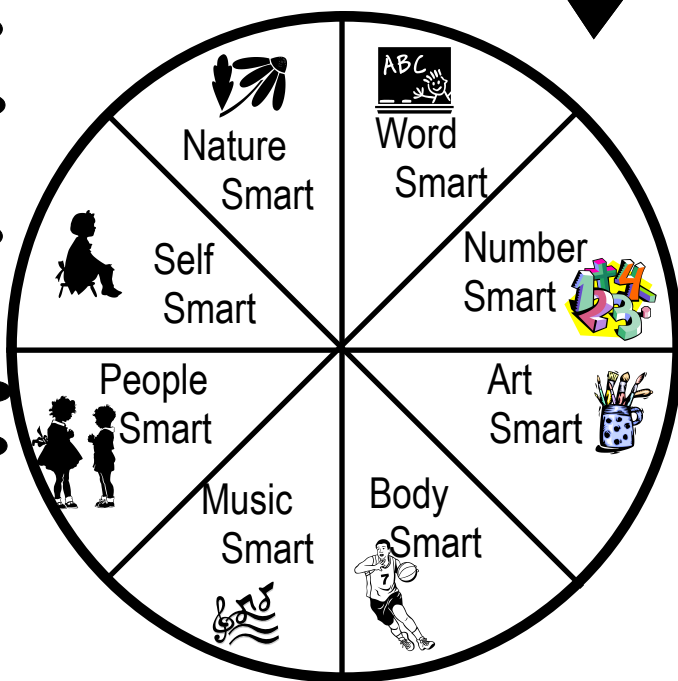
Multiple Intelligences in the Classroom

Multiple Intelligence Type	Incorporated in Curriculum	Ways of Demonstrating Understanding
Verbal-Linguistic	Books, stories, poetry, speeches, author visits	Writing stories, scripts, poems, storytelling, retelling
Mathematical-Logical	Brain teasers, math drills, problem solving, estimate, predict, science experiments	Counting, calculating, theorizing, recognizing patterns, sequencing
Musical	Music CD's, attending concerts/musicals, singing, read music	Performing, singing, playing, composing, critique/analyze music
Visual-Spatial	Posters, art work, slides, charts, graphs, DVD's, museum visits	Drawing, painting, illustrating, graphic design, collage making, poster making, photography, creative design
Bodily-Kinesthetic	Animations, exercise, physicalizing concepts, rhythm exercises	Dance recitals, athlete performances or competitions.
Interpersonal	Teams, group work/ community work, leadership roles,	Plays, debates, group/ community work
Intrapersonal	Reflection time, meditating exercised,	Journals, memoirs, diaries, changing behaviors/habits, personal growth
Naturalist	Terrariums, aquariums, class pets, farms, gardens, zoo visits, nature walks, field trips	Collecting, classifying, caring for animals/class pets

http://www.thirteen.org/edonline/concept2class/mi/exploration_sub1.html
Multiple Intelligences Structures & Activities by Laurie Kagan

The 8MTs in Kid Terms

MI Pizza



8 WAYS OF LEARNING...

Children who are highly:	THINK	LOVE
Linguistic (Word Smart)	in words	reading, writing, telling stories, playing word games
Spatial (Art Smart)	in images and pictures	designing, drawing, visualizing, doodling
Logical-Mathematical (Number Smart)	by reasoning	experimenting, questioning, figuring out logical puzzles, calculating
Bodily-Kinesthetic (Body Smart)	through somatic sensations	dancing, running jumping, building, touching, gesturing
Musical	via rhythms and melodies	singing, whistling, humming, tapping feet and hands, listening
Interpersonal (People Smart)	by bouncing ideas off other people	leading, organizing, elating, manipulating, mediating, playing
Intrapersonal (Self Smart)	in relation to their needs, feelings, and goals	setting goals, mediating, dreaming, planning, reflecting
Naturalist	through nature and natural forms	playing with pets, gardening, investigating nature, raising animals, caring for planet earth

NEED

books, tapes, writing tools, paper, diaries, dialogue, discussion debate, stories

art, videos, movies, slides, imagination games, mazes, puzzles, illustrated books, trips to art museums

materials to experiment with, science materials, manipulatives, trips to the planetariums and science museum

role play, drama, movement, things to build, sports and physical games, tactile experiences, hands-on learning

sing-along time, trips to concerts, music playing at home and school, musical instruments

friend, group games, social gatherings, community events, clubs

secret places, time alone, self-paced projects, choices

access to nature, opportunities for interacting with animals, tools for investigating nature (magnifying glass, binoculars)

An MI Inventory For Adults

Check the statements that apply in each intelligence category. Space has been provided at the end of each intelligence for you to write additional information not specifically referred to in the inventory items.

Linguistic Intelligence (Word Smart)

- _____ Books are very important to me.
- _____ I can hear words in my head before I read, speak, or write them down.
- _____ I get more out of listening to the radio or a spoken-word cassette than I do from television or films.
- _____ I enjoy word games like Scrabble, Anagrams, or Password.
- _____ I enjoy entertaining myself or others with tongue twisters, nonsense rhymes, or puns.
- _____ Other people sometimes have to stop and ask me to explain the meaning of the words I use in my writing and speaking.
- _____ English, social studies, and history were easier for me in school than math and science.
- _____ Learning to speak or read another language has been relatively easy for me.
- _____ My conversation includes frequent references to things that I've read or heard.
- _____ I've written something recently that I was particularly proud of or that earned me recognition from others.

Other Linguistic Abilities:

Logical-Mathematical Intelligence (Number Smart)

- _____ I can easily compute numbers in my head.
- _____ Math and/or science were among my favorite subjects in school.
- _____ I enjoy playing games or solving brainteasers that require logical thinking.
- _____ I like to set up little "what if" experiments (for example, "What if I double the amount of water I give to my rosebush each week?")
- _____ My mind searches for patterns, regularities, or logical sequences in things.
- _____ I'm interested in new developments in science.
- _____ I believe that almost everything has a rational explanation.
- _____ I sometimes think in clear, abstract, wordless, imageless concepts.
- _____ I like finding logical flaws in things that people say and do at home and work.
- _____ I feel more comfortable when something has been measured, categorized, analyzed, or quantified in some way.

Other Logical-Mathematical Abilities:

Spatial Intelligence (Art Smart)

- _____ I often see clear visual images when I close my eyes.
- _____ I'm sensitive to color.
- _____ I frequently use a camera to record what I see around me.
- _____ I enjoy doing jigsaw puzzles, mazes, and other visual puzzles.
- _____ I have vivid dreams at night.
- _____ I can generally find my way around unfamiliar territory.
- _____ I like to draw or doodle.
- _____ Geometry was easier for me than algebra in school.
- _____ I can comfortably imagine how something might appear if it were looked down on from directly above in a bird's-eye view.
- _____ I prefer looking at reading material that is heavily illustrated.

Other Spatial Abilities:

Bodily-Kinesthetic Intelligence (Body Smart)

- _____ I engage in at least one sport or physical activity on a regular basis.
- _____ I find it difficult to sit still for long periods of time.
- _____ I like working with my hands at concrete activities such as sewing, weaving, carving, carpentry, or model building.
- _____ My best ideas often come to me when I'm out for a long walk or a jog, or when I'm engaging in some other kind of physical activity.
- _____ I often like to spend my free time outdoors.
- _____ I frequently use hand gestures or other forms of body language when conversing with someone.
- _____ I need to touch things in order to learn more about them.
- _____ I enjoy daredevil amusement rides or similar thrilling physical experiences.
- _____ I would describe myself as well coordinated.
- _____ I need to practice a new skill rather than simply reading about it or seeing a video that describes it.

Other Bodily Kinesthetic Abilities:

Musical Intelligence

- _____ I have a pleasant singing voice.
- _____ I can tell when a musical note is off-key.
- _____ I frequently listen to music.
- _____ I play a musical instrument.
- _____ My life would be poorer if there were no music in it.
- _____ I sometimes catch myself walking down the street with a television jingle or other tune running through my mind.
- _____ I can easily keep time to a piece of music with a simple percussion instrument.
- _____ I know the tunes to many different songs or musical pieces.
- _____ If I hear a musical selection once or twice, I am usually able to sing it back fairly accurately.
- _____ I often make tapping sounds or sing little melodies while working studying, or learning.

Other Musical Abilities:

Interpersonal Intelligence (People Smart)

- _____ I'm the sort of person that people come to for advice and counsel at work or in my neighborhood.
- _____ I prefer group sports like badminton, volleyball, or softball to solo sports such as swimming and jogging.
- _____ When I have a problem, I'm more likely to seek out another person for help than attempt to work it out on my own.
- _____ I have at least three close friends.
- _____ I favor social pastimes such as Monopoly or bridge over individual recreations such as video games and solitaire.
- _____ I enjoy the challenge of teaching another person, or groups of people, what I know how to do.
- _____ I consider myself a leader (or others have called me that).
- _____ I feel comfortable in the midst of a crowd.
- _____ I like to get involved in social activities connected with my work, church, or community.
- _____ I would rather spend my evenings at a lively party than stay at home alone.

Other Interpersonal Abilities:

Intrapersonal Intelligence (Self Smart)

- _____ I regularly spend time alone meditating, reflecting, or thinking about important life questions.
- _____ I have attended counseling sessions or personal growth seminars to learn more about myself.
- _____ I am able to respond to setbacks with resilience.
- _____ I have a special hobby or interest that I keep pretty much to myself.
- _____ I have some important goals for my life that I think about on a regular basis.
- _____ I have a realistic view of my strengths and weaknesses.
- _____ I would prefer to spend a weekend alone in a cabin in the woods rather than at a fancy resort with lots of people around.
- _____ I consider myself to be strong willed or independent minded.
- _____ I keep a personal diary or journal to record the events of my life.
- _____ I am self-employed or have at least thought seriously about starting my own business.

Other Intrapersonal Abilities:

Naturalist Intelligence (Nature Smart)

- _____ I like to spend time backpacking, hiking or just walking in nature.
- _____ I belong to some kind of volunteer organization related to nature and I am concerned about helping to save nature from further destruction.
- _____ I thrive on having animals around the house.
- _____ I'm involved in a hobby that involves nature in some way (bird watching).
- _____ I've enrolled in courses relating to nature at community centers or colleges.
- _____ I'm quite good at telling the difference between different kinds of trees, dogs, birds, or other types of flora or fauna.
- _____ I like to read books and magazines, or watch television shows or movies that feature nature in some way.
- _____ When on vacation, I prefer to go off to a natural setting (park, campground, hiking trail) rather than to a hotel/resort or city location.
- _____ I love to visit zoos, aquariums, or other places where the natural world is studied.
- _____ I have a garden and enjoy working regularly in it.

Other Naturalist Abilities:

Checklist For Determining What "Smart" Your Child Is

Check items that apply:

★ Linguistic Intelligence (Word Smart) ★

- | | | |
|-------|---|---|
| _____ | writes better than average for age | ★ |
| ★★ | spins tall tales or tells jokes and stories | ★ |
| ★★ | has a good memory for names, places, dates or trivia | ★ |
| _____ | enjoys word games | ★ |
| _____ | enjoys reading books | ★ |
| _____ | spells words accurately (or if preschool, does developmental spelling that is advanced for age) | ★ |
| _____ | appreciates nonsense rhymes, puns, tongue twisters | ★ |
| _____ | enjoys listening to the spoken word (stories, commentary on the radio, talking books) | ★ |
| _____ | has a good vocabulary for age | ★ |
| _____ | communicates to other in a highly verbal way | ★ |

★ Logical-Mathematical Intelligence (Number Smart) ★

- ☐ asks a lot of questions about how things work
- ☐ enjoys working or playing with numbers
- ☐ enjoys math class (or if preschool, enjoys counting and doing other things with number)
- ☐ enjoys playing chess, checkers, or other strategy games
- ☐ finds math and computer games interesting
- ☐ enjoys working on logic puzzles or brainteasers
- ☐ enjoys categorizing
- ☐ likes to do experiment in science class or in free play
- ☐ shows interest in science-related subjects

Spatial Intelligence (Art Smart)

- ___ reports clear visual images
- ___ reads maps, charts, and diagrams more easily than text
- ___ daydreams a lot
- ___ enjoys art activities
- ___ good at drawing
- ___ likes to view movies, or other visual presentations
- ___ builds interesting three dimensional constructions
- ___ gets more out of pictures than words while reading
- ___ doodles on workbooks, worksheets, or other materials

Bodily-Kinesthetic Intelligence (Body Smart)

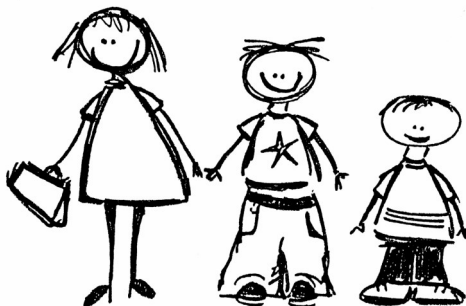
- ___ excels in one or more sports
- ___ moves, twitches, taps, or fidgets while seated for a long time in one spot
- ___ cleverly mimics other people's gestures or mannerisms
- ___ loves to take things apart and put them back together again
- ___ enjoys running, jumping wrestling, or similar activities
- ___ shows skill in a craft or good fine-motor coordination in other ways
- ___ has a dramatic way of expressing himself/herself
- ___ reports different physical sensations while thinking or working
- ___ enjoys working with clay or other tactile mediums/materials

Musical Intelligence

- ___ tells you when you sing off-key or disturbing in some way
- ___ remembers melodies of songs
- ___ has a good singing voice
- ___ plays a musical instrument or sings in a choir or other group
- ___ has a rhythmic way of speaking and/or moving
- ___ unconsciously hums to himself/herself
- ___ taps rhythmically on the table or desk as he/she works
- ___ responds favorably when a piece of music is put on
- ___ sings songs that he/she has learned outside of the classroom

Interpersonal Intelligence (People Smart)

- ___ enjoys socializing with peers
- ___ seems to be a natural leader
- ___ gives advice to friends who have problems
- ___ seems to be street-smart
- ___ belongs to clubs, committees, organizations, or informal peer groups
- ___ enjoys informally teaching other kids
- ___ likes to play games with other kids
- ___ has two or more close friends
- ___ has a good sense of empathy or concern for others
- ___ others seek out his/her company



Intrapersonal Intelligence (Self Smart)

- ___ displays a sense of independence or a strong will
- ___ has a realistic sense of his/her abilities and weaknesses
- ___ does well when left alone to play or study
- ___ marches to the beat of a different drummer in his/her style of living and learning
- ___ has an interest or hobby that he/she doesn't talk much about
- ___ has a good sense of self direction
- ___ prefers working alone to working with others
- ___ accurately expresses how he/she is feeling
- ___ is able to learn from his/her failures and successes in life
- ___ has a good self-esteem

Naturalist Intelligence

- _____ talks a lot about favorite pets or preferred spots in nature during class
- _____ likes field trips in nature, to the zoo, or to a natural history museum
- _____ shows sensitivity to natural formations (e.g., while walking outside with the class, will notice mountains, clouds)
- _____ likes to water and tend to the plants in the classroom
- _____ likes to hang around the gerbil cage, the aquarium
- _____ gets excited when studying about ecology, nature, plants or animals
- _____ speaks out for the rights of animals or the preservation of the earth
- _____ enjoys doing nature projects, such as bird watching, butterfly or insect collecting, tree study or raising animals
- _____ wants to bring bugs, leaves, or other natural things to school to share with the class or friends
- _____ does well in topics at school that involve living systems



Ways to Tap Your Child's Intelligences

If your child is:

Word Smart then you can do the following activities:



- choral speaking
- storytelling
- debating
- presenting
- dramatizing
- book making
- nonfiction reading
- writing journals

Number Smart then you can do the following activities:

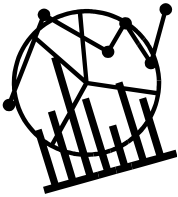


- measuring
- baking
- coding
- predicting
- solving puzzles
- using money
- using manipulatives
- collecting data



If your child is:

Art Smart then you can do the following activities:



- graphing
- photographing
- making 3D projects
- painting
- illustrating
- sketching
- visual puzzles
- using charts



Body Smart then you can do the following activities:

- hands-on experiments
- changing room arrangement
- going on field trips
- crafts
- dramatizing
- dancing
- using cooperative groups

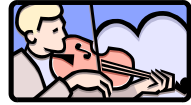


If your child is:

Music Smart then you can do the following activities:



- humming
- rapping
- playing background music
- patterns
- instrument playing
- rhythms
- singing



People Smart then you can do the following activities:

- peer counseling
- sharing
- group work
- forming clubs
- discussing
- Multi-age tutoring
- study group
- conflict mediation



If your child is:

Self Smart then you can do the following activities:



- Individual study
- personal goal setting
- individual projects
- Journal/log keeping
- independent reading
- Scrapbooking



Nature Smart then you can do the following activities:



- reading outside
- cloud watching
- identifying insects
- building habitats
- identifying plants
- planting an herb garden
- dissecting
- star gazing
- rock collecting
- going to the zoo
- nature walks



Resources:

Multiple Intelligences in the Classroom by
Thomas Armstrong

The Multiple Intelligence Series videotapes

Multiple Intelligences Structures & Activities by Laurie Kagan

At Cañon Exploratory School we try to help students find their intelligences but we also emphasis using and practicing all of the eight intelligences. Without practice we will never become stronger in something and we may miss out on something we really love. So even if your child doesn't necessarily like a "smart" have them try it,

Cañon Exploratory



School



Notes:

? After looking at MI's how can your child's project look differently?

Here is a puzzle for you. What does it mean?

Think



Answer: Think outside the box

Multiple Intelligences Learning Handbook
Compiled and Modified by
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Layout design by Lisa Bryan