Quick View: What to Emphasize Throughout Year with Students?

- The loupe + questions are *year-round* tools, like pencils and paper: to see more clearly, refine concentration, to refine thinking to help connect all the subjects we study in school and experience in life.
- There's No wrong answer to the questions :
 - "What else does it remind me of? What else does it look like?"
- Try targeting a category (as you loupe-look): What else does it remind you of in music? In move ment? In literature? In feelings? In your family? In this room? In sports? Use George "Pinky" Nelson's Question: (as you loupe-study an object) "What kind of mathematics does it remind me of?
- There's No wrong answer to the question: "Why is it like that?" if you begin with "Perhaps...." or "Maybe it's because..."
- Remind students: all loupe work is an act of close observation.
- In Grad school in science, they say: "draw, draw, draw!" because it develops close observation skills. We loupe-draw for the same reason.
- For Drawing: See tips on page 126 of *The Private Eye* Guide.
- Loupe + analogy questions give an ordinary person the heightened visual sensitivity of artist, scientist, poet, mathematician...
- Each person in a group is a "magnifier" for the rest of the group.
- The Group functions like a "Giant Brain."
- Q: Is this science, art, language arts, math. social sciences? A: All because they all fundamentally rely on **HABITS** of close observation, thinking by analogy, the ability to change scale in considering a visual or verbal or mathematical issue; and these first three lead to theorizing.
- The difference here is intensity/efficiency.
- The role of analogy: to personalize subject; heighten observation skills; discover links between things; make experience memorable; enlarge experience rapidly.
- Metaphors and similes are compressed analogies.
- Analogy lists act as "clues" to help answer the question "Why is it like that?" because... "If it reminds you of that, it might function like that in some way."
- The fabric of nature from fruit flies to human beings is basically the same.
- 99% of nature is functional for its own survival.
- Form and function are intimately tied ("Form follows function.").
- "If there's one resemblance, there may be more." Similarities in **form** (texture, structure, color, shape, taste) suggest possible similarities in **function**: "If it *looks like* a blanket, does it in any way act like a blanket for that object?" etc...
- Each person should follow what interests him or her most in the analogy list for developing into a poem, story, essay, memoir, artwork, theorizing, research project, attaching mathematical language to, etc.

Things to Think About:

• Q: Why is it wise for a teacher - or a peer editor - to avoid saying "That's GOOD" to a student analogy (metaphor or simile link)? A: (Among the many answers) The opposite of "Good" is "Bad", yet

here the process is always "GOOD" - so it's inaccurate to suggest it could be "BAD." It stops the process. "Good " also suggests "good enough," which stops students from stretching. "Good" is vague. Are there other reasons to avoid this particular one word response?

- What are some other ways of showing interest in someone's analogies (instead of the word "Good")? Ways of showing encouragement? Ask students: "What interests you most in your list? What would you like to do with your list or with an analogy on your list? Use it to start a story? A theory? A painting? An invention?
- As students answer the question: "What else did it remind me of?" have students also ask themselves the question: "Why did it remind me of 'that?"" —- as a way of stretching language / thought / insight.
- Q: Why is it often more interesting if, at first, you *don't* know why an object (or part of an object) reminded someone of "that." A: It's like a little treasure hunt since the brain is always logical in its connections/associations. And the answer to "Why did it remind me (or you) of that STRETCHES the mind. You find out something new a new connection. You see deeper into the linked structures of the world. The mind likes to stretch, just like the body, once it's warmed up and doesn't feel threatened. Tell class the example of the student who looked at a crane fly and was reminded of a Chinese vase. The student asked himself "Why?" and then wrote: "as delicate as a Chinese vase."
- Q: If you loupe-study an object on Monday, would there be any reason to look at it on Tuesday?
 A: The object may change, incrementally. Incremental change adds up to fundamental change.
 A: You change: every 10 minutes you change; every day. You gain new patterns from slight changes of experience... this gives you the opportunity to see things slightly differently every day, every half-day. Tell the story of Victoria Foe, MacArthur ("Genius Award") Fellow at UW, and 20 years of looking at fruit flies!!!...and what she saw that no one else had seen before.

NOTES:		