Disciplinary Literacy Instruction:

"Reading" and Thinking About Complex Text Like a Scientist

READING LIKE A *SCIENTIST*

- ☐ Scientists *judge and collect evidence.*

- ☐ Scientists *create questions* based on facts and data about what they are observing.

- ☐ Scientists *make predictions* based on what they read.

- ☐ Scientists *look for patterns and connections* as they read.

- ☐ Scientists *critique* the text as they read and *visualize* while reading.

- ☐ Scientists incorporate *sourcing* as a predictor of quality.

- ☐ Scientists make *close connections* about what they are observing, reading, and thinking.

- ☐ Scientists *read* scientific information *with confidence* in accuracy because it has been scientifically tested.

- ☐ Scientists read to *acquire clear understanding of an experiment.*

- ☐ Scientists read to deeply understand the large number of *discipline specific terms* which increase complexity. These can be based on *nominalization,* transferring specifics into abstract concepts, (e.g., sunlight changes carbon dioxide and water into oxygen-"photosynthesis").

- ☐ Scientists *consider data-based graphs as important as the words* in a text.

- ☐ Scientists *think critically* and *visualize while reading* about information that is changing from one form to another.

- ☐ Scientists *write down information* about formulas they are reading about.

- ☐ Scientists *read back and forth* between the text and visual diagrams because the visuals are essential for deep understanding of concepts.

- ☐ Scientists *read segments of the text closely.*

- ☐ Scientists *corroborate knowledge to transform it into new concepts and learning.*

- ☐ Scientists use *text structure* to build understanding