Characteristics of Complex Text as Defined by ACT: Reading Science Examples from "Reading Between the Lines"

Relationships:
Interactions among ideas or characters in the text are subtle, involved, or deeply embedded.
Science Example:
• Readers sort out fact from theory and conjecture in text

Richness:
The text possesses a sizeable amount of highly sophisticated information conveyed through data or literary devices.
Science Example:
• Readers analyze graphic or tabular material in science journals

Structure:
The text is organized in ways that are elaborate and sometimes unconventional.
Science Example:
• Readers decipher pertinent information in research summaries in which substantial amounts of information are presented

Style: The author’s tone and use of language are often intricate.
Science Example:
• Readers become proficient in navigating technical writing and its elements

Vocabulary: The author’s choice of words is demanding and highly context dependent.
Science Example:
• Readers determine the meaning of scientific terminology and technical terms from context and definitions provided

Purpose: The author’s intent in writing the text is implicit and sometimes ambiguous.
Science Example:
• Readers exercise common sense or a healthy skepticism to assess the validity of hypotheses, premises, and conclusions

ACT Science Reasoning

Interpretation of Data
In data presentations,
• Understand science terminology
• Extend the information in a chart to decipher additional information
• Transform data given in charts into graphic form
• Describe trends and relationships in data
• Manipulate algebraic expressions that represent data
• Analyze given information in new situations

Scientific Investigation
• Read two or more research summaries, make comparisons, and draw conclusions across experiments
• Understand methods and tools used in experimental design
• Transfer information from verbal to graphic or from graphic to verbal
• Predict how modifications in experimental design will affect results

Evaluation of Models, Inferences, and Experimental Results
• Critically read an information passage; generalize information
• Examine alternate hypotheses and viewpoints
• Compare the presented arguments in terms of specific details and inferences
• Determine whether given information supports or contradicts a hypothesis or conclusion
• Evaluate the validity of alternative or conflicting viewpoints, citing evidence