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*

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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

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