

Comparison of Science & Reading Skills

Reading Skills

The student:

Science Example

The student:

Observation

- Discriminates shapes, sounds, syllables, and word accents.
- Breaks words in syllables and lists on chalkboard.
- Pronounces new words aloud.

Identification

- Recognizes letters, words, prefixes, suffixes, and base words.
- Selects a common science prefix, suffix, or base word, defines it, and lists several words in which it may be used. Example: Kilo (1,000): kilometer, kilogram.

Description

- Isolates important attributes and characteristics.
- Enumerates ideas.
- Uses appropriate terminology and synonyms.
- States the purpose of an activity.
- Constructs keys for student rock collections or other activities.
- Plays vocabulary games.
- Uses characteristics to identify an object.

Classification

- Compares and contrasts characteristics.
- Arranges ideas and orders and sequences information.
- Considers multiple attributes.
- Lists in order the steps of a mealworm's metamorphosis.
- Constructs charts that compare and contrast characteristics.
- Puts concepts in order.

Investigation Design

- Asks questions.
- Investigates possible relationships.
- Follows organized procedures.
- Uses library resources and designs an experiment from an outline.
- Writes original lab reports.
- Outlines facts and concepts.

Data Collection

- Takes notes.
- Uses reference materials.
- Uses different parts of a book.
- Records information in an organized way.
- Is precise and accurate.
- Prepares bibliographies from library information.
- Uses tables of contents, indexes, and organizational features of chapters.
- Uses quantitative skills in lab activities.
- Compares and discusses notes.

Interpretation of Data

- Recognizes cause and effect relationships.
- Organizes facts.
- Summarizes new information.
- Varies reading rates.
- Thinks inductively and deductively.
- Discusses matters that could affect the health of an animal.
- Previews and scans printed text.
- Organizes notes in an outline.
- Constructs concept maps, flowcharts, and new arrangements of facts.

Communication of Results

- Uses graphs.
- Arranges information logically.
- Sequences ideas.
- Describes clearly.
- Lists discoveries through a timeline.
- Asks for conclusions from graphed data or tables and figures.
- Describes chronological events.

Conclusion Formation

- Generalizes.
- Analyzes critically.
- Identifies main ideas.
- Establishes relationships.
- Asks "What if?" questions.
- Scrutinizes conclusions for errors.
- Uses case studies to develop conclusions through critical thinking.