Based on that, SNilss, Students apply science knowledge, Experimental Results

**Scientific Investigation**

Students apply scientific investigation, or double bars and a legend, simple line graphs, simple diagrams like Line a basic food Zeb

Nature of simple data presentations, experiments, and theoretical models: Students understand the meaning of average or mean data in a table, graph, or diagram.

Students understand the meaning of average or mean data in a complex data presentation.

**Interpretation of Data**

Students apply science knowledge, skills, and practices to locate, transcribe, infer, and extend from, and evaluate data and information in scientific graphs, tables, and diagrams of varying complexity.

**Evaluation of Models, Inferences, and Experimental Results**

Students apply science knowledge, skills, and practices to evaluate the validity of scientific information and formulate conclusions and predictions based on that information.

A student performing at the Close level:

- identifies similarities and differences within complex scientific models.
- determines what conditions in a complex scientific model would produce specific results.

A student performing at the Ready level:

- identifies the strengths and weaknesses of complex theoretical models.
- translates moderate complex data presentation into a table or graph.

A student performing at the Exceeding level:

- predicts the results of an additional trial or measurement in a moderately complex experimental situation.
- determines what conditions in a complex scientific model would produce specific results.

**Simple Data Presentations, Experiments, and Theoretical Models**

for the Middle School Grade Band

**Moderately Complex Data Presentations, Experiments, and Theoretical Models**

These are for students who have had moderate complex data presentations and/or diagrams that resemble those found in moderately complex experimental situations. Students are able to translate between narrative descriptions and complex data presentations, making connections between different types of data. Examples of moderately complex data presentations include reader's charts, complex tables, and graphs that show changes in trends, such as multiple line graphs, bar graphs with multiple data points, and flow diagrams that show changes in trends.

**Complex Data Presentations, Experiments, and Theoretical Models**

for the Middle School Grade Band

These are for students who have had complex data presentations and/or diagrams that resemble those found in complex experimental situations. Students are able to translate between narrative descriptions and complex data presentations, making connections between different types of data. Examples of complex data presentations include reader's charts, complex tables, and graphs that show changes in trends, such as multiple line graphs, bar graphs with multiple data points, and flow diagrams that show changes in trends.