Compare* -- point out similarities, to examine 2 or more objects & consider the likenesses * If used without CONTRAST, it can mean both similarities AND differences.

Contrast--Point out differences, to examine 2 or more objects & consider the differences

Identify--Name, list, and give an example

Explain--Construct an explanation that includes a claim, evidence & reasoning

- **Claim**--An assertion based on evidence or knowledge; a statement based on research question
- **Evidence**--Data that have been represented, analyzed & interpreted in context of a specific question
- **Reasoning**--Scientific principles that provide justification serving as link between claim & evidence

Representation--Summary, drawing, diagram, bar graph, histogram, scatterplot, map, chart, table

Model--Diagram, flow chart, map, physical model, mathematical representation, analogy

Predict--Claim about what might happen; supported by principles, models, theories or evidence

Describe--To give a picture or characteristics of something in words

Pose--To set forth in words; “To pose a question or hypothesis”

Define--Give a meaning for a word or phrase

Effect*--A result or a consequence that can be positive or negative; *EFFECT IS A NOUN; AFFECT IS A VERB

Analyze--Break it into parts, tell about the parts

Summarize--Tell the main idea; tell the beginning, middle, and end

Support--Back it up or prove your answer with details or data

Evaluate--Judge it, tell the good and the bad

Differentiate*--To see or show the differences between two or more things; * DISTINGUISH means the same thing.

Justify--Show or prove to be right or reasonable; be a good reason for something

Inquiry--Examine, analyze, explore, investigate, think, ask questions

Create/Design--Graph data, generate an equation, an experimental protocol, or a model

State--To express in words

Select--To make a choice or to pick from a group

Propose--To form a plan or to put forth for consideration

Perform--To begin and carry through to completion; to do in a formal manner

Specify--To name or state explicitly or in detail

Hypothesize--Propose testable explanation prior to investigation; includes claim, desired evidence and reasoning connecting claim and evidence

Valid--Refers to degree to which data provide information relevant to question being asked

Reliable--Refers to accuracy and precision of data; whether data are consistent or reproducible

Refine--To improve by making small changes; to make more accurate

Discuss--To consider or examine by argument or comment; talk over or write about, explore solutions; debate

Calculate--determine (the amount or number of something) mathematically.

Estimate--roughly calculate or judge the value, number, quantity, or extent of.
Compare* --point out similarities, to examine 2 or more objects & consider the likenesses * If used **CONTRAST**, it can mean **both** similarities AND differences.

Contrast--Point out differences, to examine 2 or more objects & consider the differences

Identify--Name, list, and give an example

**Explain**--Construct an explanation that includes a **claim**, **evidence** & **reasoning**

- **Claim**--An **assertion** based on evidence or knowledge; a **statement** based on research question
- **Evidence**--**Data** that have been represented, analyzed & interpreted in context of a specific question
- **Reasoning**--Scientific principles that provide **justification** serving as link between claim & evidence

**Representation**--Summary, drawing, diagram, bar graph, histogram, scatterplot, map, chart, table

**Model**--Diagram, flow chart, map, physical model, mathematical representation, analogy

**Predict**--Claim about what might happen; supported by principles, models, theories or evidence

Describe--To give a picture or **characteristics** of something in words

**Pose**--To set forth in words; “To **pose** a question or hypothesis”

Define--Give a **meaning** for a word or phrase

**Effect**--A **result** or a **consequence** that can be positive or negative; *EFFECT IS A NOUN; AFFECT IS A VERB*

Analyze--Break it into **parts**, **tell** about the **parts**

**Summarize**--Tell the **main idea**; tell the beginning, middle, and end

Support--**Back it up** or **prove** your answer with **details** or **data**

Evaluate--**Judge** it, tell the **good** and the **bad**

**Differentiate***--To see or show the **differences** between **two** or **more** things; *DISTINGUISH means the same thing.

**Justify**--Show or **prove** to be **right** or **reasonable**; be a **good reason** for something

**Inquiry**--Examine, analyze, explore, investigate, think, ask questions

Create/Design--**Graph data**, generate an equation, an experimental protocol, or a model

**State**--To **express** in words

Select--To make a **choice** or to pick from a group

Propose--To form a **plan** or to put forth for consideration

**Perform**--To begin and **carry through** to completion; to do in a formal manner

Specify--to **name** or state explicitly or in **detail**

Hypothesize--Propose testable explanation prior to investigation; includes **claim**, desired **evidence** and **reasoning** connecting claim and evidence

**Valid**--Refers to degree to which data provide information **relevant** to question being asked

**Reliable**--Refers to accuracy and precision of data; whether data are consistent or reproducible

Refine--To **improve** by making small changes; to make more accurate

**Discuss**--To consider or examine by argument or comment; talk over or write about, explore solutions; **debate**

**Calculate**--determine (the amount or number of something) mathematically.

**Estimate**--roughly calculate or judge the value, number, quantity, or extent of.