BLOOM'S TAXONOMY

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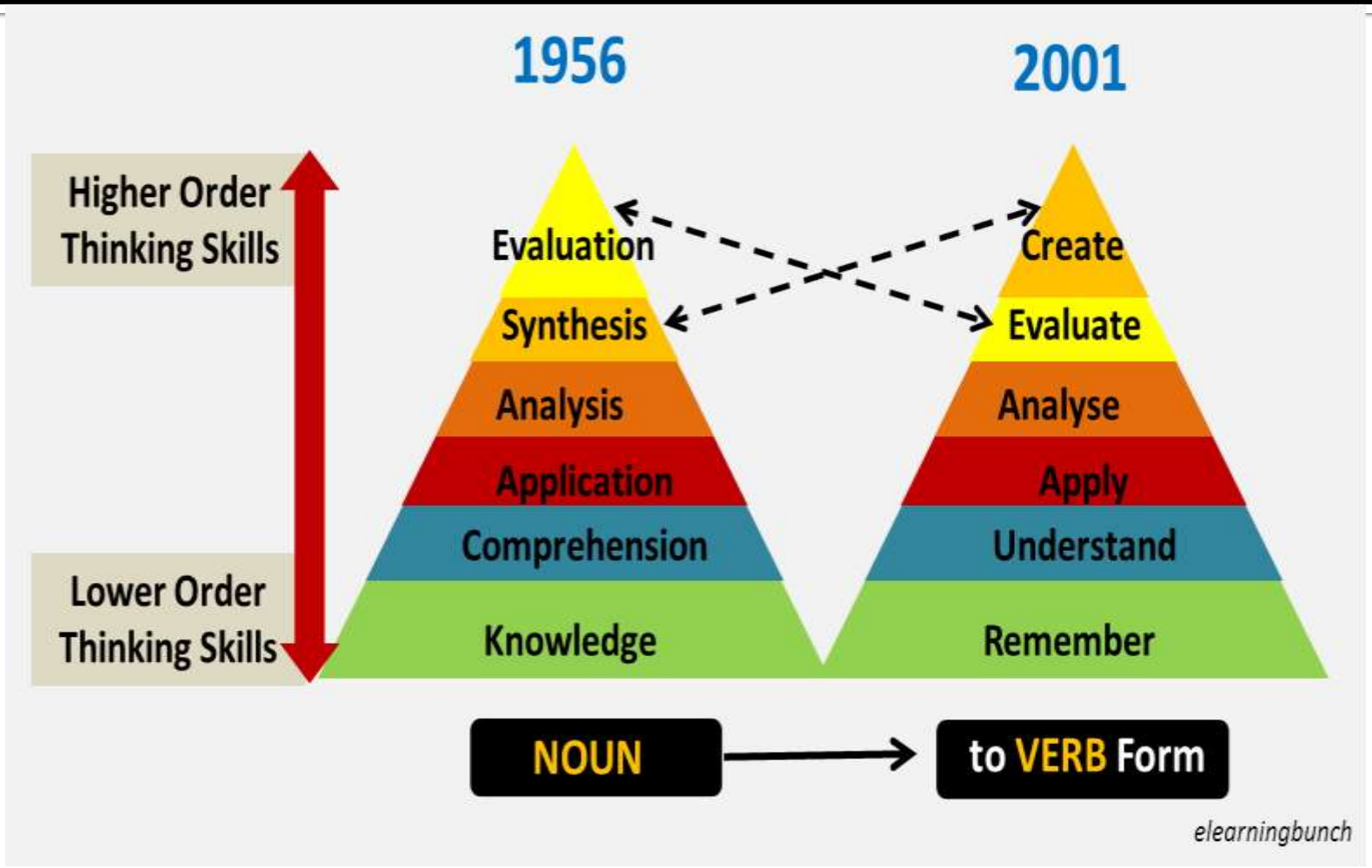
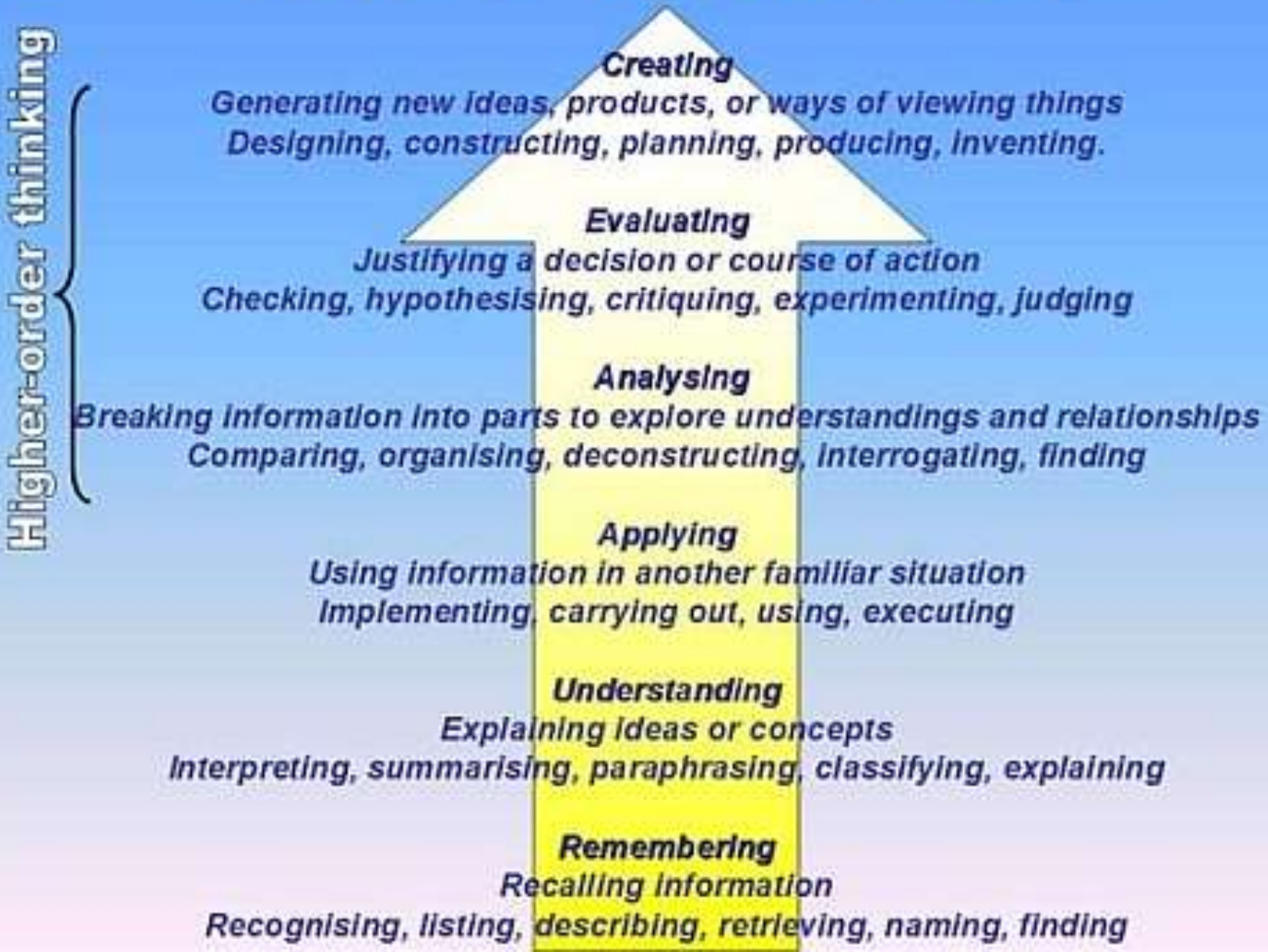
- Bloom's Taxonomy was created by Benjamin Bloom in 1956 and revised in 2001
- Bloom's taxonomy is a set of three hierarchical models used to classify educational objectives into level of complexity and specificity.
- The three lists cover the learning objectives in cognitive, affective and sensory domains.

Cognitive Domain



BLOOM'S REVISED TAXONOMY



Affective Domain

- Affective domain is related with our emotions, feelings, values, motivations and attitudes.

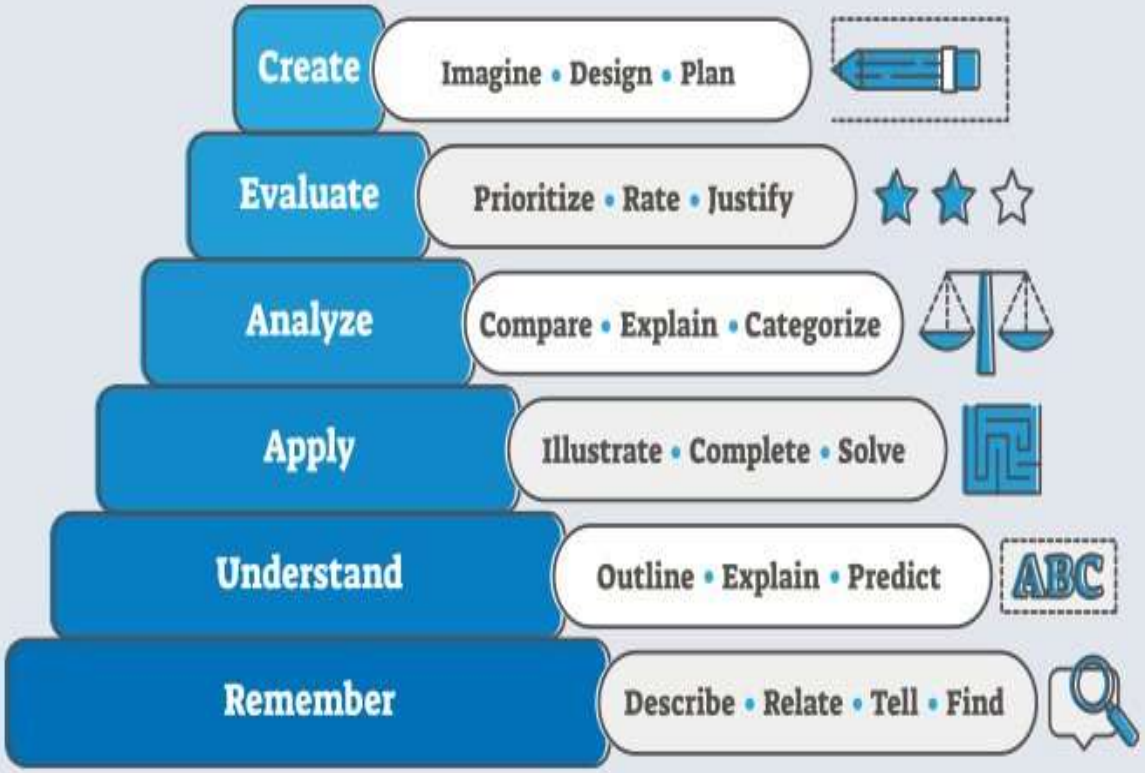
- Receiving
- Responding
- Valuing
- Organizing
- Internalizing Values

Psychomotor Domain

- Reflex Movements
- Basic Movements
- Perceptual Abilities
- Physical Abilities
- Skilled Movements
- Non-discursive communication

HOW TO FRAME LEARNING OBJECTIVES USING

BLOOM'S TAXONOMY



Scroll down to know more.

Writing objectives in Mathematics with reference to Bloom

Questions that encourage each of these skills often begin with:

- Knowledge: List, define, describe, show, name, what, when, etc.
- Comprehension: Summarize, compare and contrast, estimate, discuss, etc.
- Application: Apply, calculate, complete, show, solve, modify, etc.
- Analysis: Separate, arrange, classify, explain, etc.
- Synthesis: Integrate, modify, substitute, design, create, What if…, formulate, generalize, prepare, etc.
- Evaluation: Assess, rank, test, explain, discriminate, support, etc

Example

Knowledge: Questions include "State the definition", "State the theorem", or "Use the specified method."

E.g., Take the derivative of the following rational function using quotient rule.

Comprehension: Questions ask the student to use definitions or methods to calculate something.

E.g., Find the slope of the tangent line to the following function at a given point.

Application: Questions which require the usage of more than one definition, theorem, and/or algorithm. E.g., Find the derivative of the following implicitly defined function. (This question could be used to test logarithmic differentiation as well, for instance)
Analysis: Questions require the student to identify the appropriate theorem and use it to arrive at the given conclusion or classification. Alternatively, these questions can provide a scenario and ask the student to generate a certain type of conclusion. E.g., Let f(x) be a fourth-degree polynomial. How many roots can f(x) have? Explain.

Synthesis: Questions are similar to Analysis questions, but the conclusion to be reached by the student is an algorithm for solving the given question. This also includes questions which ask the student to develop their own classification system

E.g., optimization word problems where student generates the function to be differentiated.

Evaluation: Questions are similar to Synthesis questions, except the student is required to make judgements about which information should be used.

E.g., related rate word problem where student


THANK
YOU!