Effective Learning and Blooms Taxonomy

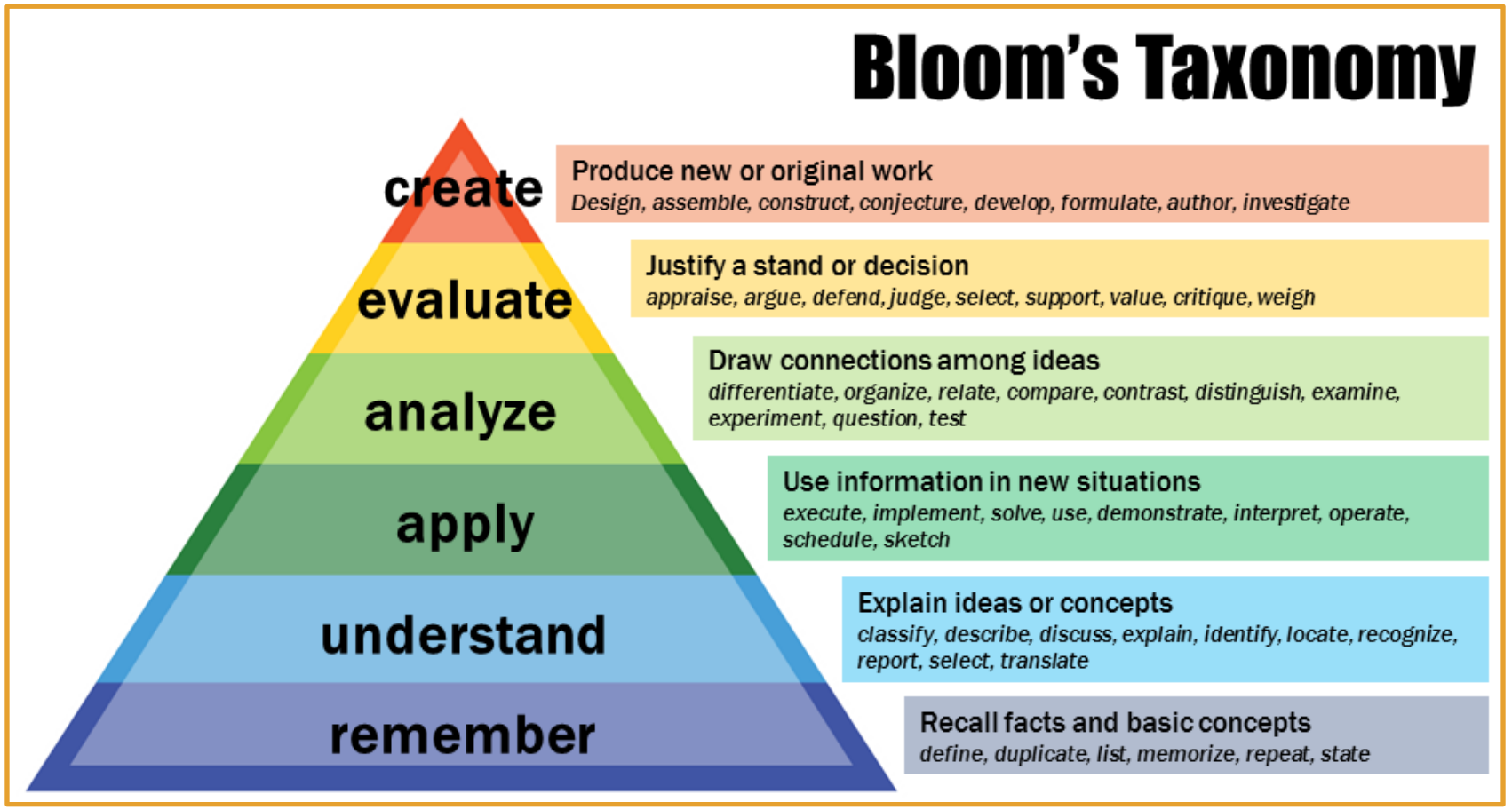
Bloom's Taxonomy is a hierarchical classification of the different levels of thinking one undergoes when learning new concepts. The levels are:

1. *Remember*
2. *Understand*
3. *Apply*
4. *Analyze*
5. *Evaluate*
6. *Create.*

HTTPS://BLOOMSTAXONOMY.NET/

Blooms Taxonomy

https://bloomstaxonomy.net/



N.E.R.T.I.E. Pillars of Success

N	E	R	T	I	E
U	X	E	I	T	X
T	E	S	M	E	T
R	R	T	E	R	E
I	C			A	N
T	I			T	S
I	S			I	I
O	E			O	O
N				N	N

N.E.R.T.I.E.

N	E	R	T	I	E

Nutrition has potent effects on brain function. Protein, iron, iodine, and eating regularly all impact learning capability and behaviour. Research has identified additional roles of micronutrients, such as fatty acids, minerals, and vitamins in the prevention of learning and behavioural disorders. Nutrition deficiencies can produce symptoms similar to those of ADHD.

After eating high levels of saturated fats, the glucose present in the food can cause the body's energy levels to drop. This is the opposite of what happens when consuming good nutrition. After eating too much glucose, a post-eating 'crash' can occur where the body begins shutting down to facilitate food processing. Besides negatively affecting energy and focus levels, too much glucose can cause irritability, fatigue, and poor focus.

N.E.R.T.I.E.

N	E	R	T	I	E

The learning process is made up of three phases: encoding, consolidation and retrieval. Exercise has a favorable effect on learning and memory function. Research has found that just a single aerobic, physical workout of two minutes (to one hour) of moderate to high-intensity exercise improves memory and cognitive function.
Moderate-intensity to high-intensity exercise improves concentration-related cognitive functions, learning memory, planning, problem-solving, long-term memory, working memory, and verbal fluency. These effects are present 30 minutes to two hours after exercise.

"Exercise makes you smart," Peter Blomstrand, MD, PhD, of County Hospital Ryhov and Jönköping University, in Sweden.

N.E.R.T.I.E.

N	E	R	T	I	E

Scientists have established that resting the mind helps strengthen memories of events and retention of information. The right kind of mental rest, which strengthens and consolidates memories from recent learning tasks, helps boost future learning.

In a recent study, participants had two learning tasks in which participants were asked to memorize different series of associated photo pairs. Between the tasks, participants rested in whatever way they chose.

Brain scans were then conducted on the participants. They found that participants who used their rest time to reflect on what they had learned earlier in the day fared better on tests, especially where bits of information between the two tasks overlapped. Participants made connections that helped them absorb information later on, even if it was only loosely related to something they learned before.

N.E.R.T.I.E.

N	E	R	T	I	E

Not all learning or practice is equally helpful and not everyone starts from the same place. Malcolm Gladwell's book, The Outliers, mentions a 10,000-hour rule. For many people, this rule focuses on the quantity of time spent practicing necessary to master a skill. Many people focus on the 10,000-hour part but neglect the quality to that time. Time spent needs to be meaningful.

Practice or study takes on meaning and relevance when the goal of the practice is connected to a specific purpose and long-term desired result.

Deliberate practice means practicing with intentionality. This type of practice is helped by the guidance of an expert or mentor who offers feedback on specific ways to improve.

The single biggest factor required to keep practicing over time is motivation. Without sustainable motivation, practice loses focus or is dropped entirely.

N.E.R.T.I.E.

N	E	R	T	I	E

According to memory expert and psychologist Hermann Ebbinghaus, the "Forgetting Curve“ shows how new information can fade from memory over time, unless you take the time to review it. Most learning needs to be repeated several times before it becomes permanent, so multiple reviews of newly learned concepts strengthens memory.

Regularly reviewing information allows us to transfer new knowledge and skills from short-term to long-term memory. The more complex the information is, the more review must be put in.

After learning something new, it is useful to spend time reviewing the new information as soon as you've learned it. Look through the material again and refine any notes that you've made.

It takes repeated effort to move information into your long-term memory, so it's vital to review material frequently.

N.E.R.T.I.E.

N	E	R	T	I	E

Each iteration provides an opportunity for “deep understanding”. Learning must evolve beyond “surface knowledge”, but surface knowledge is required before meaningful critical thinking can be practiced.

Deep understanding is the ability to connect new knowledge with prior knowledge. One of the keys to lifelong learning is putting knowledge in context; to see the big picture and fully understand it.

Developing a deep understanding requires engagement and curiosity. Curiosity causes a person to ask the right questions to move learning forward. Putting information in context requires the development of critical thinking skills to see the big picture and to recognize the main themes in a topic area.

Deep understanding is predicated on self-directed, higher-order thinking and learning. Attaining deep understanding leads to long-term success.

Steps to study and get help

1. Be engaged in class.
    1. Understand what I'm doing in class.
    2. Code alongside me.
    3. If you can't do both, the priority is understanding and participating in class.
2. Take good notes.
    1. If you can't take good notes and follow along with the lecture, stop taking notes and stop coding along. Just understand and participate in the discussion.
3. Study the pdfs
    1. Create flashcards of all the terms and definitions.
    2. Even if you don't fully understand the concept, memorizing is a first step.
    3. With experience, you will be able to put the pieces together.
4. Watch the video
5. Watch the video again
6. Do your due diligence so that you can eliminate options and give info to the person you ask for help.
7. Ask your groupmates
8. Ask at least 3 additional batchmates
9. Ask Mark and/or Jonathan.

STAR pattern

STAR pattern (situation, task, action, result)

3 S’s to answer interview questions.

Answer "Tell me about yourself" with the 3-S's (Successes, Strengths, Situation)