

Exam Prep: How to Study with *Bloom's Taxonomy*

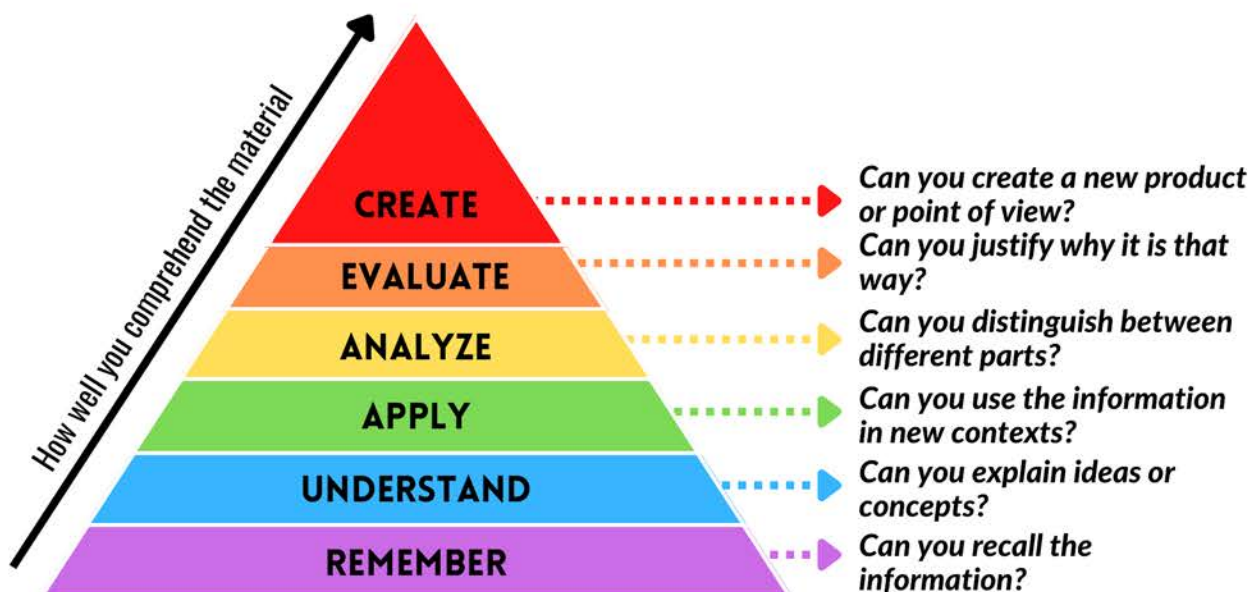
Adapted from "The A Game"
by Dr. Kenneth Sufka

It is important to study effectively, eliminate wasted time studying without purpose. For studying to *be effective*, you must find ways to comprehend the material on a *deeper* level.

The pyramid below represents the magnitude of learning that occurs.

- The lower levels represent *shallow understanding* of materials.
- The higher levels represent *mastery* of materials.

Work your way up to the top!



The pages that follow provide helpful information for each level of learning. You can use this resource independently for studying, and/or pair it with our [Exam Prep: Test Autopsy](#) and [7- or 5-Day Study Plan](#), and/or [Successful Study Groups](#) resources for even more effective studying.

Ask one of our Peer Academic Skills Coaches for assistance if needed!

Level 1

Remember

Create charts and lists. Recite information correctly.

Exhibit memory of previously learned material by *recalling* facts, terms, basic concepts, and answers.

Key Words/Verbs & Common Question Types:

Choose
Define
Find
How
Label
List
Match
Name
Omit
Recall
Select
Show
Spell
Tell
What
When
Where
Which
Who
Why

What is...?
Where is...?
How is...?
How did _____ happen?
When did _____ happen?
Why did...?
When did...?
How would you show...?
Who were the main...?
Which one...?
How would you explain...?
How would you describe...?
Can you recall...?
Can you select...?
Can you label the...?
Can you list the three...?
Who was...?

Individual Study Strategies:

1. Practice labeling diagrams
2. List characteristics
3. Write out the textbook definitions
4. Identify biological objects or components from flash cards
5. Quiz yourself with flash cards
6. Take a self-made vocabulary quiz
7. Draw, classify, select, or match items

Group Study Strategies:

1. Check a drawing that another student labeled
2. Create lists of concepts and processes that your peers can match
3. Place flash cards in a bag and take turns selecting one for which you must define the term
4. Do the individual activities and have your peers check your answers

Level 2

Understand

Summarize, draw, and teach others.

Demonstrate understanding of facts and ideas by *organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.*

Key Words/Verbs & Common Question Types:

Classify
Compare
Contrast
Demonstrate
Explain
Extend
Illustrate
Infer
Interpret
Outline
Relate
Rephrase
Show
Summarize
Translate

How would you classify...?
How would you compare...?
How would you contrast...?
State in your own words...?
Rephrase the meaning...?
What facts or ideas show that...?
What is the main idea of...?
Which statement(s) support...?
Explain what is happening...?
What is meant by...?
What can you say about...?
What's the best way to describe...?
How would you summarize?

Individual Study Strategies:

1. Describe the process of _____ in your own words without copying it from a book or another source
2. Provide examples of a process or concept
3. Write a sentence using a vocabulary term
4. Compare and contrast two or more concepts from the materials

Group Study Strategies:

1. Discuss content with peers
2. Take turns quizzing each other about descriptions
3. Take self-made quizzes utilizing the question types above, and have your peers check both the quiz and your answers, or vice versa.
4. Do the individual activities and have your peers check your answers

Level 3

Apply

Model, build, present to novice audience.

Solve problems to *new* situations by *applying* acquired knowledge, facts, techniques, and rules in a *different* way.

Key Words/Verbs & Common Question Types:

Apply
Build
Choose
Construct
Develop
Experiment with
Identify
Interview
Make use of
Model
Organize
Plan
Select
Solve
Utilize

How would you use ____ to...?
What examples can you find to...?
How would you solve ____ using what you've learned?
How would you organize ____ to show...?
How would you show your understanding of...?
What approach would you use to...?
How would you apply what you learned to develop...?
What other way would you plan to...?
What would result if...?
Can you make use of the facts to...?
What elements would you choose to change...?
What facts would you use select to show...?
What questions would you ask in an interview with...?

Individual Study Strategies:

1. Review each process you've learned and ask yourself:
What'd happen if you increase or decrease a component in the system? Or what would happen if you alter the activity of a component in the system?
2. If possible, graph a process and create scenarios that change the shape or slope of the graph

Group Study Strategies:

1. Discuss content with peers
2. Take turns quizzing each other about descriptions
3. Take self-made quizzes utilizing the question types above and the course material, and have your peers check and critique both the quiz and your answers, or vice versa.
4. Do the individual activities and have your peers check your answers

Level 4

Analyze

Chart, plan, question, and organize concepts.

Examine and break information into parts by *identifying* motives or causes. Make *inferences* and find evidence to support generalizations.

Key Words/Verbs & Common Question Types:

Analyze
Assume
Categorize
Classify
Compare
Conclusion
Contrast
Discover
Dissect
Distinguish
Divide
Examine
Function
Inference
Inspect
List
Motive
Relationships
Simplify
Survey
Take part in
Test for
Theme

What are the parts of...?
How is ____ related to ____...?
Why do you think...?
What is the theme of...?
What motive is there...?
What inference can you make...?
What conclusion(s) can you draw...?
Who would you classify...?
How would you categorize...?
Can you identify...?
What evidence can is there to support...?
What is the relationship...?
Can you distinguish between...?
What is the function of...?
What ideas justify...?

Level 4

Analyze

Continued...

Individual Study Strategies:

1. Analyze and interpret data from a text (without reading the author's interpretation) and then compare your interpretation with the author's
2. Analyze a situation and then identify assumptions and principles of the argument
3. Compare and contrast two ideas or main concepts in depth
4. Create a map of the main concept(s) by defining relationships of the concepts using one- or two-way arrows.

Group Study Strategies:

1. Work together to analyze and interpret data from a text (without reading the author's interpretation) defend your analysis together, and then compare with the author's interpretation.
2. Work together to identify all of the concepts in the text, create individual maps linking the concepts together with arrows and words that relate the concepts and then grade each other's concept maps.

Level 5

Evaluate

Critique, evaluate, and recommend future directions.

Present and defend opinions by making *judgements* about information, validity of ideas, or quality of work based on a set of criteria.

Key Words/Verbs & Common Question Types:

Agree
Appraise
Assess
Award
Choose
Compare
Conclude
Criteria
Criticize
Decide
Deduct
Defend
Determine
Disprove
Dispute
Estimate
Evaluate
Explain
Importance
Influence
Interpret
Judge
Justify
Measure
Opinion
Perceive
Prove
Rate
Recommend
Select
Support
Value

Do you agree with the actions...?
Do you agree with the outcome...?
What is your opinion on/of...?
How would you prove/disprove...?
Assess the value/importance of...?
Would it be better if...?
Why did they choose...?
What would you recommend...?
How would you rate...?
How would you cite to defend the actions...?
How could you determine...?
What choices...?
How would you prioritize...?
What judgement can you make...?
Based on what you know, how would you explain...?
What information would you use to support the view...?
How would you justify...?
What data was used to make the conclusion...?
What was ____ better than...?
How would you compare the ideas...?
How would you compare the people...?

Level 5
Evaluate

Continued...

Individual Study Strategies:

1. Generate a hypothesis or design an experiment based on information you are studying
2. Create a model based on a given data set
3. Create summary sheets that show how facts and concepts relate to each other
4. Create questions at each level of Bloom's Taxonomy as a practice test and then take the test.

Group Study Strategies:

1. Each student puts forward a hypothesis about a process and designs an experiment to test it. Peers critique the hypothesis and experiments, including suggestions on how to improve them.
2. Create a new model/summary sheet/concept map that integrates each group member's ideas.
3. Using the same type of practice test as described in the individual strategies, have each group member take the test and then pass them to another peer to "grade" them and provide feedback.

Level 6

Create

Produce a new game, poem, story, algorithm, etc. using material.

Compile information together in a *different* way by combining elements in a new pattern or proposing *alternative* solutions.

Key Words/Verbs & Common Question Types:

Adapt
Build
Change
Choose
Combine
Compile
Compose
Construct
Create
Design
Develop
Discuss
Elaborate
Estimate
Formulate
Happen
Imagine
Improve
Invent
Make up
Maximize
Minimize
Modify
Original
Originate
Plan
Predict
Propose
Solution
Solve
Suppose
Test
Theory

What changes would you make to solve...?
How would you improve...?
What would happen if...?
Can you elaborate on the reason...?
Can you propose an alternative...?
Can you invent...?
How would you adapt ____ to create a different...?
How could you change (modify) the plot (plan)...?
What could be done to minimize/maximize...?
What would you design...?
What could be combined to improve (change)...?
Suppose you could _____ what would you do...?
How would you test...?
Can you formulate a theory for...?
Can you predict the outcome if...?
How would you estimate the results for...?
Can you predict the outcome if...?
How would you estimate the results for...?
What facts can you compile...?
Construct a model that would change...?
Think of an original way for the...?
Come up with an original model for...?

Level 6
Create

Continued...

Individual Study Strategies:

1. Write a description of a given concept based on what you've learned
2. Create a study guide someone else could use for the unit/module that you've been studying.
3. Create graphic, flowchart, guide, etc., that has all the important information and key concepts from the unit/module that you or someone else could use as a reference in the future.

Group Study Strategies:

1. Using the hypotheses and experiments, as well as the new model/summary sheet/concept map created in Level 5, repackage the material as a team for someone else's use
2. Each create a study guide as described in the individual strategies and critique each others for clarity, accuracy, and ease of use.
3. Evaluate each others' graphic/flowchart/guide/etc. for clarity, accuracy, and ease of use.