Costa's Levels of Thinking and Questioning

Level 1

Remember:

Define
Repeat
Name
List
State
Describe
Recall
Memorize
Label
Match
Identify
Record

Show Understanding:

Give examples
Restate
Discuss
Express
Rewrite
Recognize
Explain
Report
Review
Locate
Find
Paraphrase
Tell
Extend
Summarize
Generalize

Level 2

Use Understanding:

Dramatize
Practice
Operate
Imply
Apply
Use
Compute
Schedule
Relate
Illustrate
Translate
Change
Pretend
Discover
Solve
Interpret
Prepare
Demonstrate
Infer

Examine:

Diagram
Distinguish
Compare
Contrast
Divide
Question
Inventory
Categorize
Outline
Debate
Analyze
Differentiate
Select
Separate
Point out
Criticize
Experiment
Break down
Discriminate

Create:

Compose
Design
Propose
Combine
Construct
Draw
Arrange
Formulate
Organize
Compile
Revise
Write
Devise
Modify
Assemble
Prepare
Generate

Level 3

Decide:

Judge
Value
Predict
Evaluate
Rate
Justify
Decide
Measure
Choose
Assess
Select
Estimate
Conclude
Summarize

Supportive Evidence:

Prove your answer.
Support your answer.
Give reasons for your answer.
Explain your answer.
Why or why not?
Why do you feel that way?

Costa's Levels of Thinking and Questioning

Steps to the Inquiry Process

Higher-level questions are essential to facilitating conceptual understanding. The inquiry process is facilitated by skillful questioning and provides students with the opportunity to become independent thinkers who master their own learning.

STEPS Description of Inquiry Level Sample Questions

Step 1:
Gather and Recall Information (Gathering/Input)

Ask **Level 1** questions to identify what students know about the problem or question and connect to prior knowledge.

•What do you know about your problem?
•What does _____mean?

•What did you record from your class notes about the lecture?

•What does it say in the text about this topic?

•What is the formula or mnemonic device (ex. P-E-M-D-A-S) that will help you identify the steps necessary to solve the problem?

Step 2:
Make Sense Out of Information Gathered (Processing)

Ask **Level 2** questions to begin processing the information gathered, make connections and create relationships.

•Can you break down the problem into smaller parts? What would the parts be?

•How can you organize the information?

•What can you infer from what you read?

•Can you find a problem/question similar to this in the textbook to use as an example?

•What is the relationship between _____ and _____?

Step 3:
Apply and Evaluate Actions/ Solutions (Applying/Output)

Ask **Level 3** questions to apply knowledge acquired and connections made to predict, judge, hypothesize or evaluate.

•How do you know the solution is correct? How could you check your answer?

•Is there more than one way to solve the problem? Could there be other correct answers?

•Can you make a model of a new or different way to share the information?

•How do you interpret the message of the text?

•Is there a real life situation where this can be applied or used?

•Can you explain it in a different way?

•Could the method of solving this problem work for other problems?

•How would you teach this to a friend?

Costa's Levels of Thinking and Questioning

Costa's Content Specific Questions

Costa's Levels of Questioning - Math

Level 1

What information is given?
What are you being asked to find?
What formula would you use in this problem?
What does _____mean?
What is the formula for...?
List the...
Name the...
Where did...?
What is...?
When did...
Explain the concept of...
Give me an example of...
Describe in your own words what _____ means
What mathematical concepts does this problem connect to?
Draw a diagram of...
Illustrate how _____ works.

Level 2

What additional information is needed to solve this problem?
Can you see other relationships that will help you find this information?
How can you put your data in graphic form?
What occurs when..?
Does it make sense to...?
Compare and contrast _____ to _____
What was important about...
What prior research/formulas support your conclusions?
How else could you account for...?
Explain how you calculate...
What equation can you write to solve the word problem?

Level 3

Predict what will happen to _____ as _____ is changed.
Using a math principle, how can we find ...?
Describe the events that might occur if...
Design a scenario for...
Pretend you are...
What would the world be like if...
How can you tell if your answer is reasonable?
What would happen to ____if _____ variable were increased/decreased?
How would repeated trials affect your data?
What significance is this formula to the subject you're learning?
What type of evidence is most compelling to you?

Costa's Levels of Questioning – Science

Level 1

What information is given?
What are you being asked to find?
What formula would you use in this problem?
What does _____mean?
What is the formula for...?
List the...
Name the...
Where did...?
What is...?
When did...
Describe in your own words what _____ means
What science concepts does this problem connect to?
Draw a diagram of...
Illustrate how _____ works.

Level 2

What additional information is needed to solve this problem?
Can you see other relationships that will help you find this information?
How can you put your data in graphic form?
How would you change your procedures to get better results?
What method would you use to...
Compare and contrast _____ to _____
Which errors most affected your results?
What were some sources of variability?
How do your conclusions support your hypothesis?
What prior research/formulas support your conclusions?
How else could you account for...?
Explain the concept of...
Give me an example of...

Level 3

Design a lab to show...
Predict what will happen to _____ as _____ is changed
Using a science principle of, how can we find ...?
Describe the events that might occur if...
Design a scenario for...
Pretend you are...
What would the world be like if...
What would happen to ____ if _____ variable were increased/decreased?
How would repeated trials affect your data?
What significance is this experiment to the subject you're learning?
What type of evidence is most compelling to you?
Do you feel _____ experiment is ethical?
Are your results biased?

Costa's Levels of Thinking and Questioning

Costa's Levels of Questioning - English

Level 1

What information is given?
Locate in the story where…
When did the event take place?
Point to the…
List the...
Name the...
Where did...?
What is...?
Who was/were...?
Illustrate the part of the story that…
Make a map of…
What is the origin of the word _____?
What events led to _____?

Level 2

What would happen to you if..
Would you have done the same thing as…?
What occurs when..?
Compare and contrast _____ to _____
What other ways could ____ be interpreted?
What is the main idea of the story (event)?
What information supports your explanation?
What was the message in this piece (event)…
Give me an example of...
Describe in your own words what _____ means.
What does_____ suggest about _____'s character?
What lines of the poem express the poet's feelings about _____?
What is the author trying to prove? What evidence does he present?

Level 3

Design a _____ to show...
Predict what will happen to_____ as _____ is changed
Write a new ending to the story (event)…
Describe the events that might occur if...
Add something new on your own that was not in the story…
Pretend you are...
What would the world be like if...
Pretend you are a character in the story. Rewrite the episode from your point of view.
What do you think will happen to _____? Why?
What is most compelling to you in this _____? Why?
Could this story have really happened? Why or why not?
If you were there, would you...
How would you solve this problem in your life?

Costa's Levels of Thinking and Questioning

Costa's Levels of Questioning – Social Studies

Level 1

What information is given?
What are you being asked to find?
When did the event take place?
Point to the…
List the...
Name the...
Where did...?
What is...?
Who was/were...?
Make a map of…

Level 2

What would happen to you if..
Can you see other relationships that will help you find this information?
Would you have done the same thing as…?
What occurs when..?
If you were there, would you...
How would you solve this problem in your life?
Compare and contrast _____ to _____
What other ways could ____ be interpreted?
What things would you have used to…
What is the main idea of the event?
What information supports your explanation?
What was the message in this event…
Explain the concept of...
Give me an example of...
Describe in your own words

Level 3

Design a _____ to show...
Predict what will happen to _____ as _____ is changed
What would it be like to live…
Write a new ending to the event…
Describe the events that might occur if...
Pretend you are...
What would the world be like if...
How can you tell if your analysis is reasonable?
What do you think will happen to _____?
Why?
What significance is this event in the global perspective?
What is most compelling to you in this _____? Why?
Do you feel _____ is ethical? Why or why not?

Costa’s Levels of Thinking and Questioning