

# Costa's Levels of Inquiry

Inquiry is an important aspect of curriculum. Inquiry-based learning focuses on the student as learner, developing skillful, open-ended questioning skills. Being able to recognize different levels of questions is beneficial for all students in many areas of learning. Understanding the three levels of questions explained below, designed by Art Costa, is critical for student success.

<p><b>Level One Questions (Text Explicit)</b></p> <p>Readers can point to one correct answer right in the text. Words found in these questions include:</p> <ul style="list-style-type: none"> <li>• defining</li> <li>• observing</li> <li>• describing</li> <li>• naming</li> <li>• identifying</li> <li>• reciting</li> <li>• noting</li> <li>• listing</li> </ul>	<p><b>Level 1 statement</b></p> <ul style="list-style-type: none"> <li>• Define irony. (English)</li> <li>• Identify the starting date of the American Revolution. (History)</li> <li>• Define tangent. (Math)</li> <li>• Define photosynthesis. (Science)</li> </ul>
<p><b>Level Two Questions (Text Implicit)</b></p> <p>Readers infer answers from what the text implicitly states, finding answers in several places in the text. Words found in these questions include:</p> <ul style="list-style-type: none"> <li>• analyzing</li> <li>• grouping</li> <li>• synthesizing</li> <li>• comparing/contrasting</li> <li>• inferring</li> <li>• sequencing</li> </ul>	<p><b>Level 2 Statement</b></p> <ul style="list-style-type: none"> <li>• Compare and contrast Mr. Frank and Mr. Van Daan in Anne Frank: Diary of a Young Girl. (English)</li> <li>• Analyze the causes of the American Revolution. (History)</li> <li>• Compare the square root of 49 to the square root of 64. Which is greater? (Math)</li> <li>• Diagram and order the stages of photosynthesis. (Science)</li> </ul>
<p><b>Level Three Questions (Experience Based)</b></p> <p>Readers think beyond what the text states. Answers are based on reader's prior knowledge/experience and will vary. Words found in these questions include:</p> <ul style="list-style-type: none"> <li>• evaluating</li> <li>• judging</li> <li>• applying a principle</li> <li>• speculating</li> <li>• imagining</li> <li>• predicting</li> <li>• hypothesizing</li> </ul>	<p><b>Level 3 Statement</b></p> <ul style="list-style-type: none"> <li>• Predict how Charlie Gordon will change after his operation in Flowers for Algernon. (English)</li> <li>• Imagine you were a soldier fighting in the Civil War. How would you feel? (History)</li> <li>• Apply the Pythagorean theorem to the find the measurement of this triangle. (Math)</li> <li>• Diagram the stages of photosynthesis and predict how long each takes. (Science)</li> </ul>

# Arthur Costa's Levels of Questioning

## Level One

Defining	Describing
Identifying	Listing
Naming	Observing
Reciting	Scanning

## Level Two

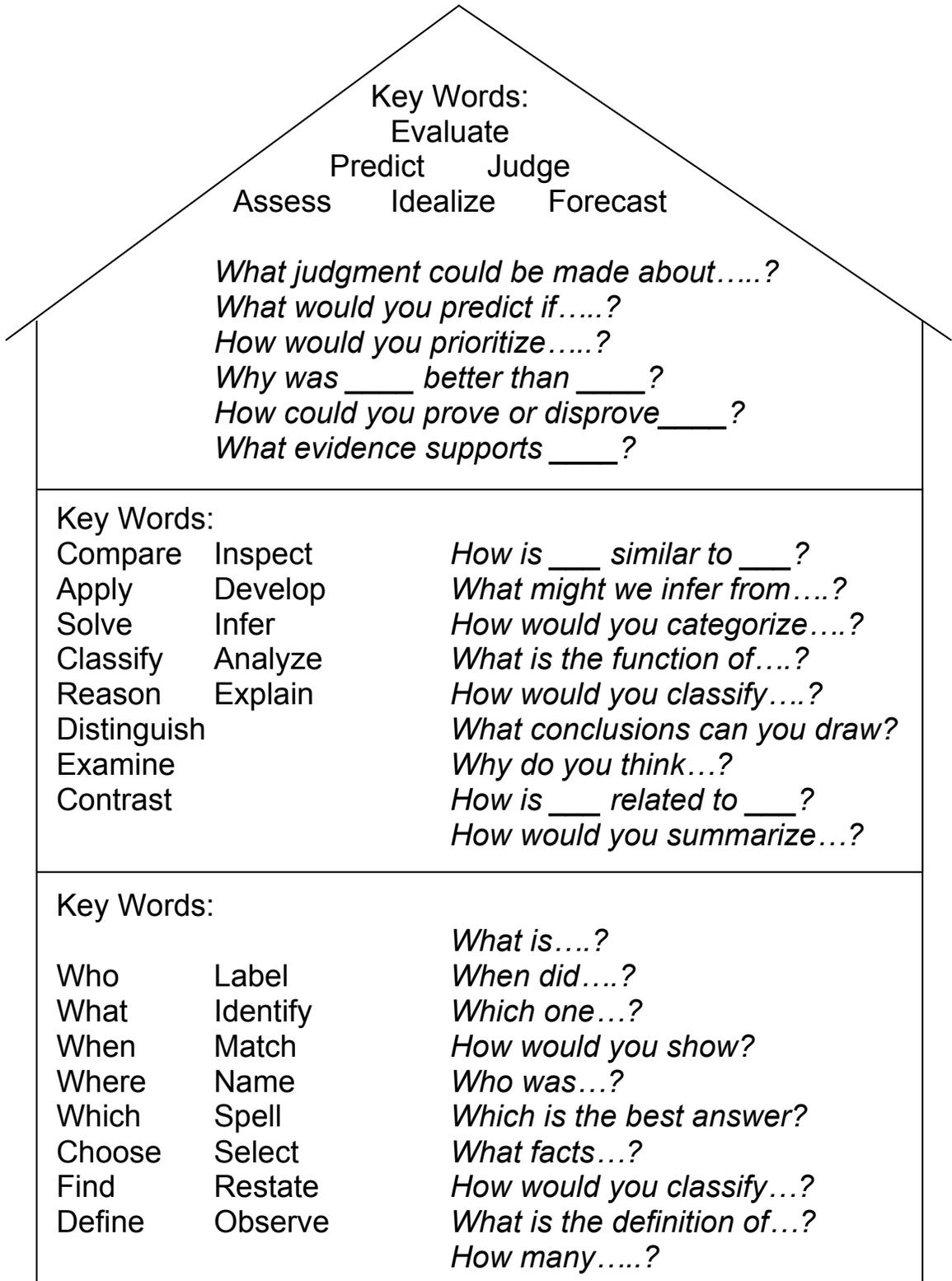
Analyzing	Comparing
Contrasting	Grouping
Inferring	Sequencing
Synthesizing	

## Level Three

Applying a Principle	Evaluating
Hypothesizing	Imagining
Judging	Predicting
Speculating	

# *The Three-Story Intellect*

## *High-Level Thinking Skills*



# Techniques of Questioning\*

Questions can take place on a variety of different levels, some easy and close-ended and others more multi-faceted and open-ended. Knowing when to ask the “right” questions can greatly aid in group discussions and study. The following material aims to help students ask the right questions at the right time.

A LEVEL ONE QUESTION REQUIRES A PERSON TO:

1) <u>define</u>	What’s the definition of “lunar eclipse?” ( <u>define</u> )
2) <u>describe</u>	How can we express the equation $2x(4-5y) + 3y = 26$ in three different ways? ( <u>list</u> )
3) <u>identify</u>	
4) <u>list</u>	
5) <u>name</u>	
6) <u>observe</u>	
7) <u>recite</u>	
8) <u>scan</u>	What does the chart show? ( <u>scan</u> )

A LEVEL TWO QUESTION REQUIRES A PERSON TO:

1) analyze	In <u>Native Son</u> , how does Bigger Thomas’ violence against his gang members reveal a deeply rooted fear of people? ( <u>analyze</u> )
2) compare	
3) contrast	In “The Bet” how do the lawyer and the banker differ in their attitude toward capital punishment? ( <u>contrast</u> )
4) group	
5) infer	If the moon is full Aug. 17, July 18, and June 19, when will it be full in April? ( <u>infer</u> )
6) sequence	
7) synthesize	How does the term “manifest destiny” capture the essence of western expansion in the US? ( <u>synthesize</u> )

A LEVEL THREE QUESTION REQUIRES A PERSON TO:

1) apply a principle	Using the principle of the “communicative property.” How can we find out the number of apple trees in an orchard having 15 rows, 5 trees each? ( <u>apply</u> )
2) evaluate	
3) hypothesize	
4) imagine	
5) judge	Which of the characters in <u>Great Expectations</u> suffered the most? ( <u>judge</u> )
6) predict	
7) speculate	In <u>Catcher in the Rye</u> , how might Phoebe, years later, describe Holden to her children? ( <u>speculate</u> )

TIPS FOR USING THIS QUESTIONING TECHNIQUE:

- Level One Questions are often necessary to establish the group’s basic understanding of facts or situations.
- Questioning should not remain in Level One, but should advance to both Level Two and Level Three

## Arthur Costa's Levels of Questioning

Level I	Examples	Type of Question
<ul style="list-style-type: none"> <li>• defining</li> <li>• describing</li> <li>• identifying</li> <li>• listing</li> <li>• naming</li> <li>• observing</li> <li>• reciting</li> <li>• scanning</li> </ul>	<p>What is a lunar eclipse?</p> <p>Which states seceded from the Union to form the Confederacy?</p> <p>How does <i>The Road Not Taken</i> begin?</p>	<p>Asks for facts, knowledge, dates, names, definitions.</p>
Level II	<p>How does the term “manifest destiny” capture the essence of western expansion in the US?</p> <p>In <i>The Bet</i>, how do the lawyer and the banker differ in their attitudes toward capital punishment?</p>	<p>Asks you to interpret, think, take what you know and see it in a new way.</p>
Level III	<p>Which of the characters in <i>Great Expectations</i> suffers the most?</p> <p>Using the principle of the communicative property, how can we find out the number of apple trees in an orchard having 15 rows, 5 trees each.</p>	<p>Asks you to extend your thinking beyond the text.</p>