

## Analysis: Taking Things Apart

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What do the following questions have in common?

- What are the most important characteristics of a leader?
- What do the numbers 27, 36, and 93 have in common?
- What is the relationship between nouns and verbs?
- What are the main parts of a seed?
- How would you complete this comparison? Song is to music as \_\_\_\_\_ is to \_\_\_\_\_.

Each question above requires analysis—the ability to take something apart and examine its critical attributes—to reach an answer or solution. Students use analysis whenever they:

- make observations
- separate a concept or object into parts
- sort ideas or objects into groups
- place ideas in some kind of order
- compare two or more different ideas or objects
- contrast two or more different ideas or objects
- decode a word, passage, or system

Questions of analysis require students to think at higher levels and provide opportunities for students to:

- make accurate and pertinent observations
- recognize critical attributes
- use logical thinking
- recognize similarities and differences
- gather useful information for problem solving
- distinguish between similar ideas
- build a foundation for other higher-order thinking skills (e.g., synthesis, evaluation)

The following questions are examples of analysis questions. Teachers may use them as models for developing appropriate questions for their particular subject or grade level.

### Mathematics

- Which steps are most important when doing long division?
- Find a mathematical pattern in your school. If the pattern continued, what would the next three elements in the pattern be?
- Compare the most recent statistics of your two favorite sports teams. Based on the statistics, which team is doing better? Why?
- Which objects in your classroom have no circular parts?

## Language Arts

- How would you complete the following comparison? Star is to rats as \_\_\_\_\_ is to \_\_\_\_\_.
- Which fictional character is most/least like you? Why?
- What are the three most important qualities of a well-written story/essay?
- Write the eight parts of speech in order from most important to least important. Why would you arrange them in this way?

## Science

- How is a botanist like a detective?
- Which planet is most like Earth? Why?
- What kind of garden would be most successful in your climate? Why?
- What do mammals and reptiles have in common?

## Social Studies

- Which South American country is most like the United States? Why?
- How would you complete the following comparison? Geography is to \_\_\_\_\_ as history is to \_\_\_\_\_.
- What three qualities should the mayor of a city possess? Why?
- Which American presidents would you place in the following categories: most powerful, most effective, most admired?
- What is the relationship between a city and a state?

## Music/Art

- Which classical composer is most like your favorite modern musician/group? Why?
- How would you complete the following comparison? Oboe is to orchestra as \_\_\_\_\_ is to \_\_\_\_\_.
- What do painting and drawing have in common?
- List five musical instruments in order from least difficult to play to most difficult to play. Why would you arrange them in this way?
- How would you interpret your favorite music in dance?