## **Critical Thinking Skills**

# **USING LOGIC**

**REM 202B** 

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## **A TEACHING RESOURCE FROM**



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## INTRODUCTION

This book is designed to provide students with activities demanding the use of logic. As the basis of all reasoning skills, it is essential that logic be presented and stressed in as many different formats as possible. The activities included involve the basic skills of language, math, and visual perception. Students must analyze the problem, evaluate possible solutions, and follow sequential steps to arrive at a conclusion. These same steps are required in any problem-solving situation-both academic and practical. They will develop abilities in examining information, exploring possibilities, and sequencing.

You will find this book to be an effective teaching tool for many ages and readability levels. Based on Bloom's Taxonomy of thinking skills, it is suitable for grades 3-6. Readability is approximately at the 3<sup>rd</sup>-4<sup>th</sup> grade level. (Keep in mind that readability scales, though useful, are guidelines only. They cannot measure every factor affecting readability, such as sentence structure or appeal to the reader. Also, scales can differ from each other in the results they yield).

Although an answer key is provided, it is entirely possible that students may have very valid reasons for choosing a different answer than what is given in the key. Any answer they can explain in a logical manner should be accepted.

All activities are reproducible for use in a variety of teaching, practice, and reinforcement situations. They are appropriate for whole class, small group, or individual use. Oral discussion of the work as it is completed will increase the level of student understanding.

## THE CRITICAL THINKING SERIES

#### FROM REMEDIA PUBLICATIONS

201B 201C 201D	Analogies Classification Absurdities Similarities & Differences Sequence
202A	Drawing Solutions
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Logic means "making sense."

It's like putting a puzzle together. You gather all the pieces and put them together to make a clear picture. Sometimes the pieces are words - written or spoken. Sometimes they are numbers or even pictures and designs.

The examples below will give you an idea of what logic is all about.

#### WORDS:

Read these sentences:	Do they make sense the way they are? Write them in logical order on the lines below.
She mailed it.	
Karen wrote a letter.	
She put a stamp on it.	

#### Here's another example:

Jim was late for school. He dressed quickly and gobbled down his breakfast. Then he sat down and watched the last cartoon on TV. He had to run all the way to school.

What did Jim do that was not logical? \_\_\_\_\_

#### NUMBERS:

This number is odd.	Which is the logical choice? Circle the number.				
It is larger than 12. It does not have a 3 in it.	14	26	15	33	
PICTURES:			NAME THE DOG		
This poster tells about a contest. Is it logical?			CONT ENTER NOW!	EST!	
Explain:					
				Ĭ	

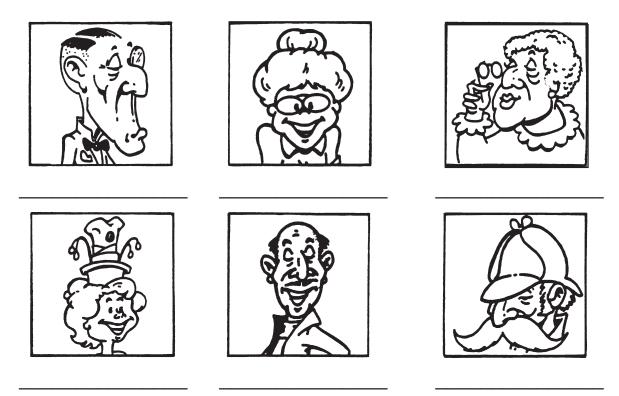
Putting things in order takes logic. Follow the directions for ordering each list below.						
1.	1. Order these animals from LARGE to SMALL.		2.	Now list them in ALPHABETICAL ORDER.		
	wolf					
	elephant					
	spider					
	chipmunk					
	rhinocerous					
3.	3. Order these numbers from SMALL to LARGE.		4.	Write these number words in ALPHABETICAL ORDER.		
	674			twelve		
	83			four		
	208			six		
	912			nine		
	4			one		
5.	Order these fruits from LARGEST to SMALLEST.		6.	•••••••	animals from o SLOW.	
	cantaloupe			cat		
	plum			pig		
	watermelon			cheetah		
	grape			turtle		
	orange			horse		

#### **USING LOGIC**



Meet Aggie and Ansel Anderson. They live in Oakdale. They have a dog named Flapjack and a cat named Biscuit. Aggie and Ansel are very curious children and like to play detective.

Here are some friends of Aggie and Ansel. They often find themselves smack-dab in the middle of Ansel and Aggie's adventures. Read the clues below to identify each person. Write the name of the character under his/her picture.



- 1. Mrs. Maypole lives next door to Aggie and Ansel. They like to tease her about her hats.
- 2. Miss Magenta works in the Oakdale library. She does not like fancy hair-dos and never wears jewelry. Mrs. Flamingo thinks Miss Magenta is a very boring person.
- 3. Sergeant Tuesday snorts and puffs through his thick mustache when Aggie and Ansel try to solve his cases for him.
- 4. Colonel Catsup and Professor Peachtree share a house on Pecan Street. The colonel often makes fun of the professor's bald head.

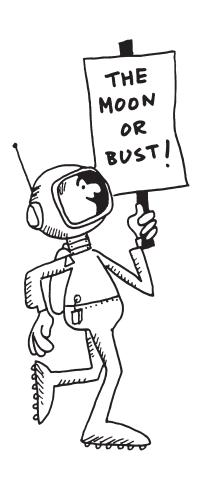
Making choices takes logic! You must know: 1) How many choices you have for a given situation and 2) What your choices are.

Sometimes there are only two possible choices. Other times there are more than two.

Each sentence below gives two choices. If you agree that these are the only two possible choices, put an A (agree) in front of the statement. If you feel there are more than the two choices given, put a D (disagree) on the line.

Example: \_\_\_\_\_ You may have a hot dog or a hamburger for lunch.

(This is a D because you might have ham, tuna, or lots of other things for lunch!)



#### Now try these!

- 1. \_\_\_\_\_ All plants are either tall or short.
- 2. \_\_\_\_\_ A goldfish is either alive or not alive.
- 3. \_\_\_\_\_ You may either stand up or sit down.
- 4. \_\_\_\_\_ A glass is either empty or full.
- 5. \_\_\_\_\_ A person is either young or old.
- 6. \_\_\_\_\_ You are either awake or asleep.
- 7. \_\_\_\_\_ Food is either raw or cooked.
- 8. \_\_\_\_\_ People are either grouchy or happy.
- 9. \_\_\_\_\_ A dog is either large or small.
- 10. \_\_\_\_\_ Eyes are either brown or blue.
- 11. \_\_\_\_\_ The door is either open or closed.
- 12. \_\_\_\_\_ A cloud is either white or black.
- 13. \_\_\_\_\_ Your hair is either long or short.
- 14. \_\_\_\_\_ You either know the answer or you don't.
- 15. \_\_\_\_\_ The weather is either warm or cold.

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## An analogy compares two sets of words to see how they are alike. It takes logic to solve analogies.

#### Example:

Fur is to bear as feathers are to a \_\_\_\_\_\_.

To solve it, think "Fur covers a bear. What do feathers cover?" (bird, chicken)

#### Now try these:

1.	Scissors are to cut as pencil is to	·
2.	Sock is to foot as glove is to	·
3.	Candy is to sweet as dill pickle is to	·
4.	Scary is to monster as funny is to	·
5.	Ant is to tiny as hippo is to	_ ·
6.	Summer is to warm as winter is to	·
7.	Yellow is to lemon as red is to	
8.	Ball is to round as box is to	
9.	Up is to as top is to bottom.	
10.	Knee is to as elbow is to arm.	
11.	Peanut is to as banana is to monkey.	
12.	Shovel is to dirt as is to leaves.	
13.	is to go as red is to stop.	ala
14.	Notes are to music as words are to	·
15.	Hair is to head as beard is to	·