



Cubing is a strategy designed to help students think about a topic or idea from many different angles.

#### Elements of a Cube:

- Cubes contain six commands, one for each side of the cube.
- ✓ Each face of the cube contains a command and a prompt.
- ✓ Cubes can be used to differentiate activities based on student readiness by using the same command but then increasing or decreasing the level of difficulty of the prompt.
- Cubes can be used to differentiate activities based on interest by using prompts that are related to student interest in reading, history, geology, the arts etc.
- Cubes can be used to differentiate activities based on learning profile by using learning modalities, multiple intelligences, or learning styles, to name a few.
- ✓ Cubes can be used to practice existing skills or concepts, such as math skills or Six Trait Writing skills.
- Cubes can be used for students to explore a subject area further.
- ✓ Remember: Cubing isn't the same as Menus. Students "do" what they roll, not what they choose. Make sure everything they might roll is a "fit" for them.





### Ways to make Cubes

- Color code for different readiness levels.
- Use Velcro or clear plastic sides so prompts can be changed out.
- Make them generic: Six Traits, Bloom's Taxonomy
- Color code for different students' profiles
- Use blank color coded cubes that correspond to wall charts or prompts.
- Have the students cut out and make the cubes themselves.
- Make big cubes for student with physical challenges.
- Use two cubes, each one with half of a compound sentence for two students to roll and combine.
- Be creative!



#### IDEAS FOR CUBING IN MATH ...

Describe how you would solve
Analyze how this problem helps us use mathematical thinking and problem solving
Compare this problem to one on p
<u>Demonstrate</u> how a professional (or just a regular person) could apply this kind of problem to their work or life.
<u>Change</u> one or more numbers (elements, signs) in the problem. Give a rule for what that change does.
<u>Create</u> an interesting and challenging word problem from the number problem. (Show us how to solve it too)
Diagram or illustrate the solutions to the problem. Interpret the visual so we understand.



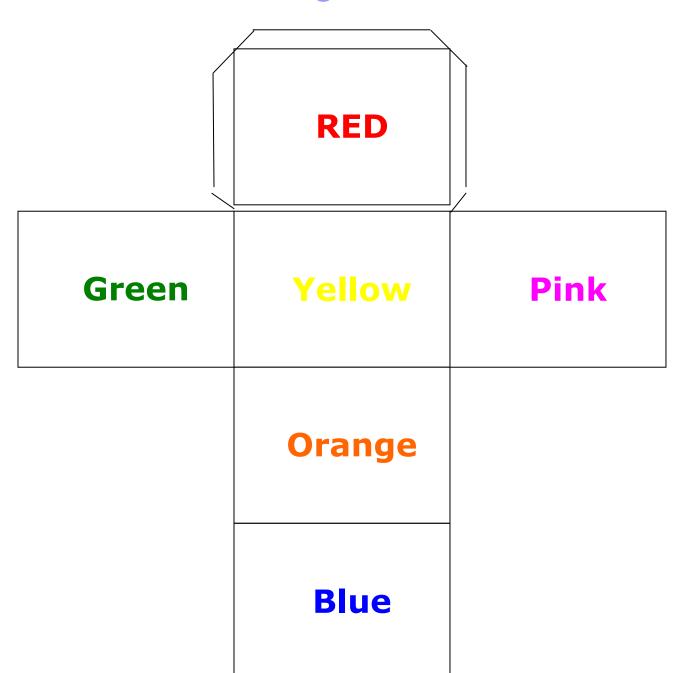
### IDEAS FOR KINESTHETIC CUBE

Arrange into a 3-D collage to show
Make a body sculpture to show
Create a dance to show
Do a mime to help us understand
Present an interior monologue with dramatic movement that
Build/construct a presentation of
Make a living mobile that shows and balances the elements of
Create authentic sound effects to accompany a reading of
Show the principle of with a rhythm pattern you create. Explain to us how that works.

### Using Cubing to Assist with Reading Comprehension

Knowledge: List what the candidate says (insert	
Comprehension: Define	(issue).
Application: If the election were held toda candidate would get your vote?	ay, which
Analysis: Do a venn diagram to compare candidates.	the two
Synthesis: Create a campaign slogan for candidate.	your
Evaluation: Which candidate would do a bin office.	etter job

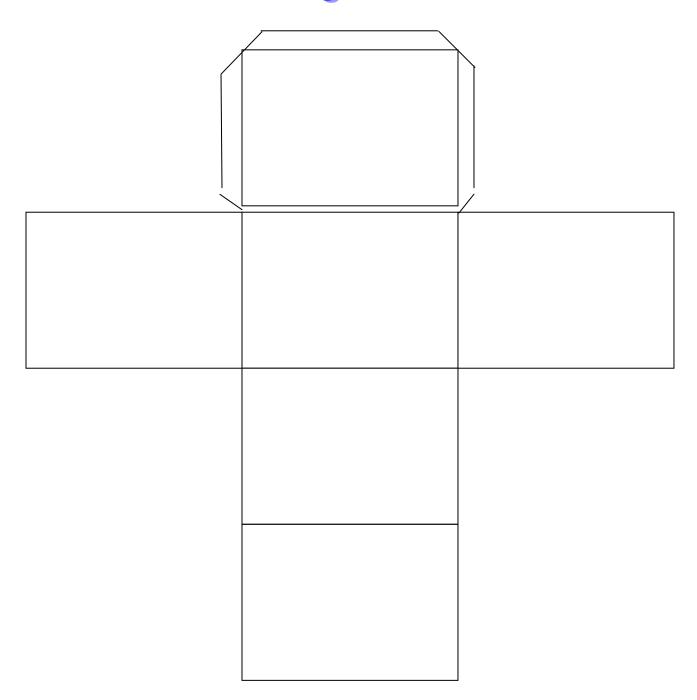
# Cubing Pattern



### **Easily Programmed Cube:**

- 1. Make a wall chart with colors that correspond to the cube.
- 2. Instructions or activities are written on the chart.
- 3. The cube is thrown and the color is then matched to the chart.
- 4. Student completes that activity.

# Cubing Pattern



# Differentiated Instructional Strategies:

## One Size Doesn't Fit All

INSTRUCTIONAL TECNIQUE: CUBING

Cubing is another technique that can help students think at different levels of the taxonomy (Cowan & Cowan, 1980). Cubing is a technique for considering a subject from six points of view (Cowan & Cowan, 1980; Tomlinson, 2001). Cubing works well when we are "stuck" or locked into a particular way of thinking.

One side of the cube may say: Describe it

Another Side: Compare it The third side: Associate it The fourth side: Analyze it

The firth side: Apply it

And the sixth side says: Argue for or against it

Cubes may vary with task or commands that are appropriate to the level of readiness of the group. Cubes may also be constructed with tasks in a particular area of the multiple intelligences such as verbal/linguistic, bodily/kinesthetic, or intrapersonal intelligence.

### Differentiated Instructional Strategies:

Figure 1.1. Question starters and Classroom Activities Differentiated According to Bloom's Taxonomy

### **Question Starters**

### Level I: KNOWLEDGE (recall)

- 1. What is the definition for...?
- 2. What happens after...?
- 3. Recall the facts.
- 4. What were the characteristics of...?
- 5. Which is true or false?
- 6. How many...?
- 7. Who was the...?
- 8. Tell in your own words.

#### Level II: COMPREHENSION

- 1. Why are these ideas similar?
- 2. In your own words retell the story of...
- 3. What do you think could happen?
- 4. How are these ideas different?
- 5. Explain what happened after...
- 6. What are some examples?
- 7. Can you provide a definition of...?
- 8. Who was the key character?

### Potential Activities

- 1. Describe the...
- 2. Make a timeline of events.
- 3. Make a facts chart.
- 4. Write a list of...steps in...facts about...
- 5. List all the people in the story.
- 6. Make a chart showing...
- 7. Make an acrostic.
- 8. Recite a poem.
- 1. Cut out or draw pictures to show an event.
- 2. Illustrate what you think the main idea was.
- 3. Make a cartoon strip showing the sequence of...
- 4. Write and perform a play based on the...
- 5. Compare this\_\_\_\_ with \_\_\_\_.
- 6. Construct a model of...
- 7. Write a news report.
- 8. Prepare a flow chart to show the...

## Level III: APPLICATION (applying without understanding is not effective)

- 2. What is another instance of ....?
- 3. Demonstrate the way to...
- 4. Which one is not like...?
- 5. What questions would you ask?
- 6. Which factors would you change?
- 7. Could this have happened in...? Why or why not?
- 8. How would you organize these ideas?

- 1. Construct a model to demonstrate using it.
- 2. Make a display to illustrate one event.
- 3. Make a collection about...
- 4. Design a relief map to include relevant information about an event.
- 5. Scan a collection of photographs to illustrate a particular aspect of the study.
- 6. Create a mural to depict...

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