Before the Thinking Begins

with Lisa Van Gemert

1

2

3

4

5

RANKIT

Critical Thinking Requires Evaluating the _____ of Your Thinking
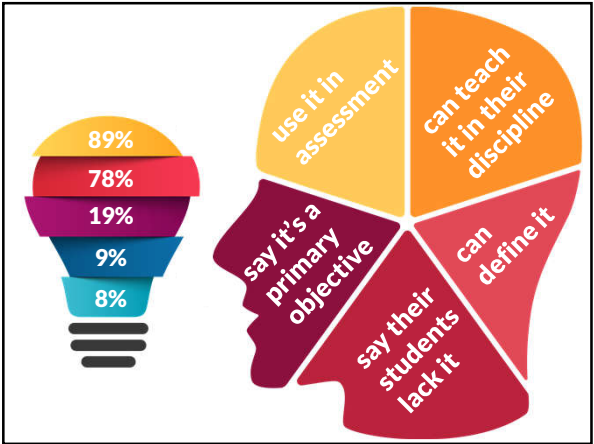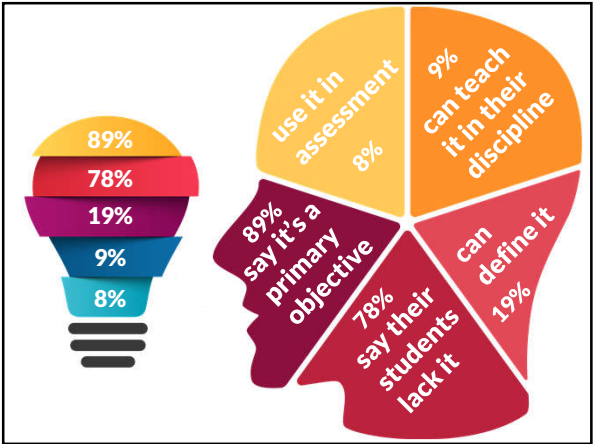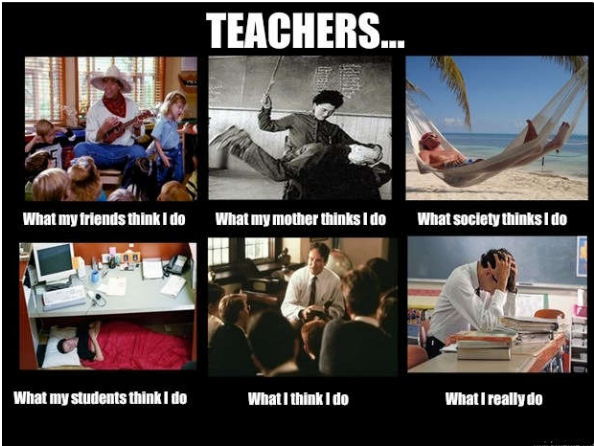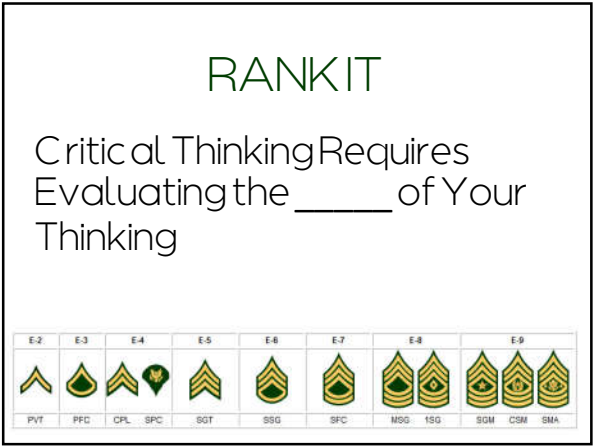
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Critical Thinking Requires Evaluating the _____ of Your Thinking

clarity
origins
accuracy
precision
value
relevance
depth
background
breadth
logic
significance

7

Okay, but what is it?

8

A MENTAL HABIT & POWER

A PRODUCT OF EDUCATION, TRAINING, & PRACTICE

ACTIVELY ANALYZING THE THINKING PROCESS

THINKING ABOUT THINKING & HOW TO IMPROVE IT

INFORMED DECISION MAKING

9

Let us tenderly and kindly cherish, therefore, the means of knowledge. Let us dare to read, think, speak, and write.

John Adams

10

MINIMUM EFFECTIVE SUPPORT

11

ASK QUESTIONS

So, where did you get that step/idea?

12

NARROW OR ELIMINATE WRONG THINKING

It's one of the Noble gases…

13

PROVIDE THE NEXT STEP

We do the parentheses first, right?

14

SHARE CONTEXT

Remember that this is before the US enters the war…

15

IS THERE A RULE?
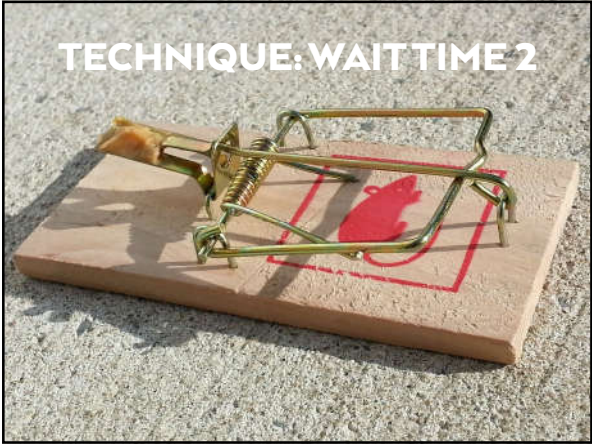
I before E except…

16

ARE THEY MISSING A STEP?

Wait, what do we do after we add up the tens column?

17

GO BACK FURTHER.

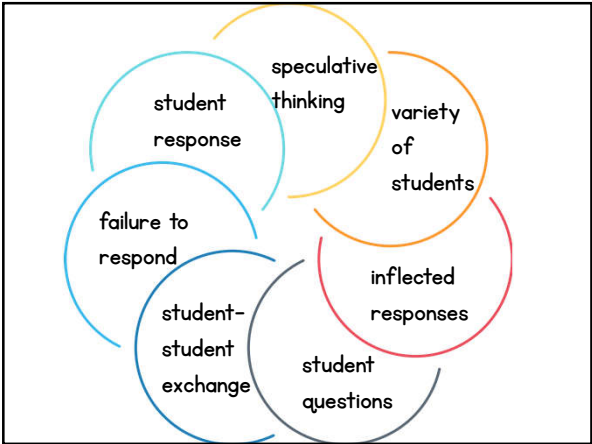Hm. I think it might help to go back to the step before this one.

18

TECHNIQUE: WAIT TIME 2

19
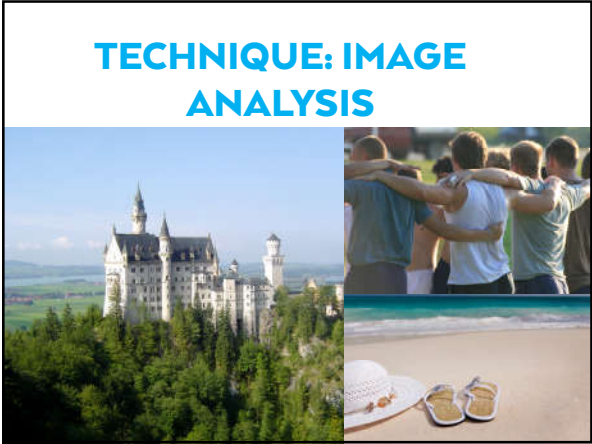

What are the benefits, you ask?

20

student response

speculative thinking

variety of students

failure to respond

inflected responses

student–student exchange

student questions

21

22

TECHNIQUE: IMAGE ANALYSIS

23

24

WALK/STOP

25

THEORY: SPATIAL REASONING

26

NOSE 3

RIGHT EAR 2

LEFT EAR 4

RIGHT SHOULDER 1

LEFT SHOULDER 5

27

Whom would this help?

28

GRAPHING / COORDINATE PLANE   PREVIEW

29

30

Randomize the questions

31

Be open-ended with less right/wrong

OPEN
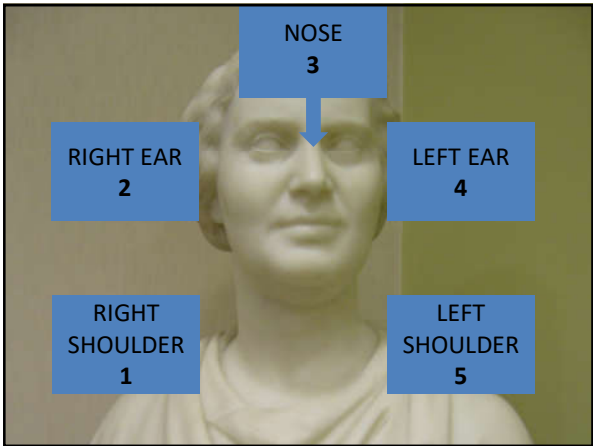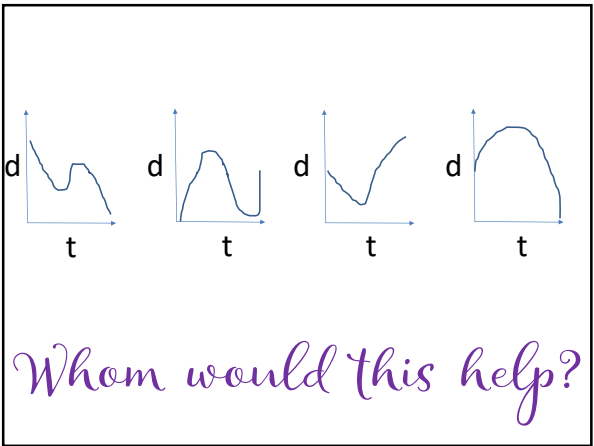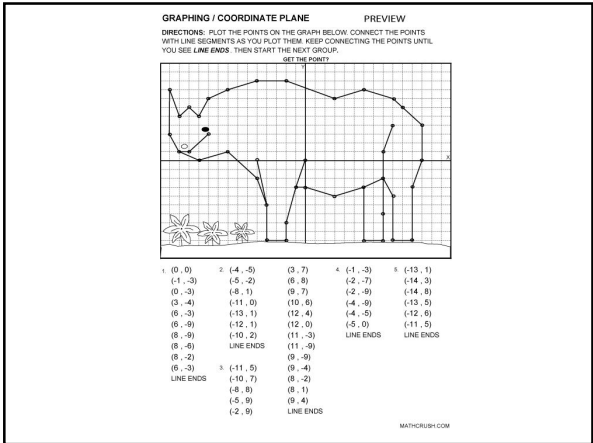
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THIS:

What are some of the possible consequences of _____?

Which is most likely to result in _____?

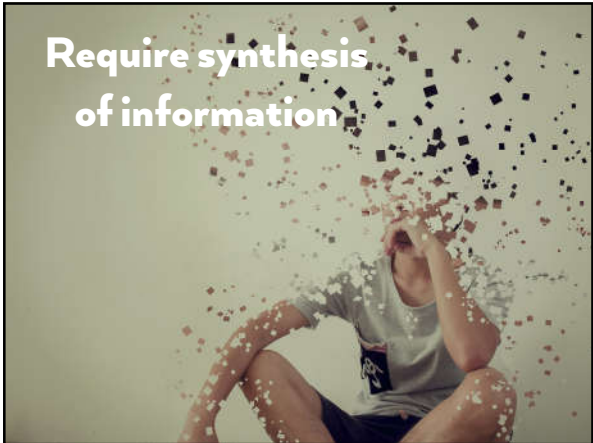How could the antagonist increase the likelihood the protagonist would do _____?

33

NOT THIS:

What happened next?

What is the name of ___?

How many ____ are there?

This is called a _____?

34

Require synthesis of information

35

THIS:

How is this like solving the kind of problems we were working with yesterday?

How is the best first step in this problem different from the best first step in that problem?
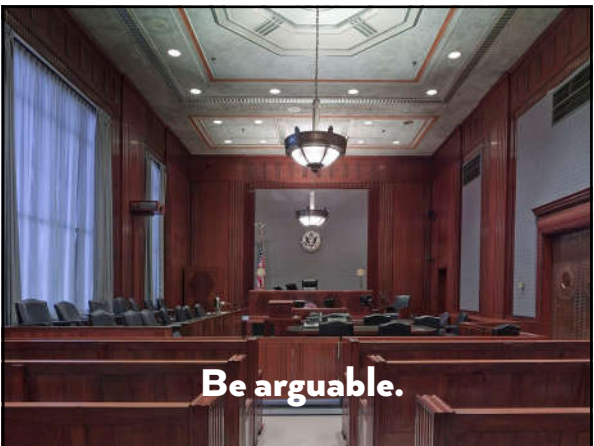
36

NOT THIS:

What is the best first step?

Who remembers what kind of problem we were working on yesterday?

What is this kind of problem called?

37

Be arguable.

38

THIS:

Give me three reasons _____ is the most important character in the story.

The Mercator map projection is the most valuable projection. Prove me wrong.

How would taking carbon out of the Periodic Table make the Table more or less useful?

39

NOT THIS:

What happened next?

What is the name of ___?

How many ____ are there?

This is called a _____?

40

Be age-appropriate

41

Just because the textbook says this...

What do you think will happen next?

What formula do you use for ___?

Who led the ____?
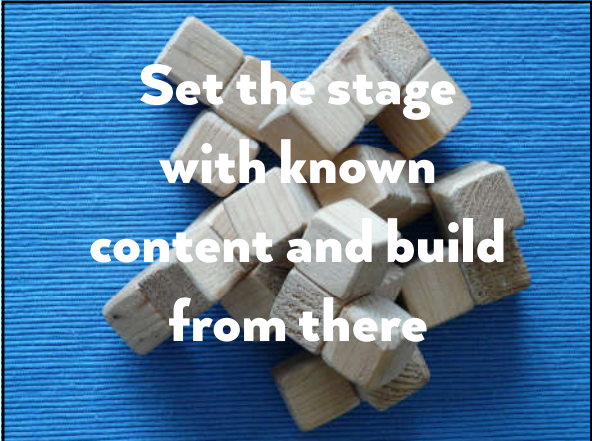
What was the purpose of ___?

42

Doesn't mean you can't ask questions like this…

What would be the worst thing that could possibly happen next?

What is another possible name for _____?

If you had to get rid of one, which would you choose?

43

Set the stage with known content and build from there

44

If you were absent yesterday, what would be three things you would need to know to talk about what we learned today?
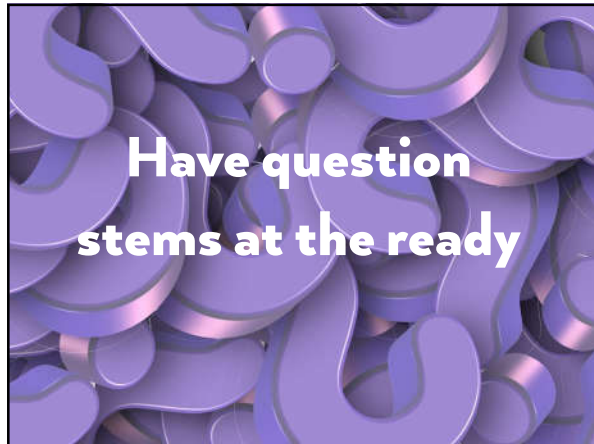
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Model active listening

46

Give intentional time for thought

47

Give breaks, but keep momentum

48

Have question stems at the ready

49

"Too often, teachers make connections and point out patterns for students without realizing we are teaching them to imitate what we do rather than to construct meaning for themselves." – Betty Garner

50