

The Preview Game for Math

Prepare:

Find any reading selection or complex math problem that has text features or content that students need to know.

Make copies for each student and, if possible, make a copy for the overhead or Smart-board.

Explain: Tell students, “Today we are going to work on a critical reading skill called previewing. Previewing is important for readers because the more you know about something, the easier it is to learn more. Before you read or watch something you need to activate your prior knowledge, wake up your brain, and get a good look at the material. Athletes look carefully over the course or field before they play, musicians look over their music, and doctors look over their patients. (As Zach Efron said in *High School Musical*, you’ve got to “get your head, get your head, get your head... in the game!”)

We are going to play The Preview Game to strengthen your previewing skills. I will give you one to three minutes (depending on the length of the passage—less time for math) to look a short passage or problem. (This is like your patient.) When I say go, I want you to flip over the selection and preview it. You won’t have a long time to preview so what kind of things will you look at? Turn to your neighbor and tell them.”

Call on groups and then process their ideas. Remind them that they won’t have time to read the whole selection so they should look at some of the following:

For Math

- What kind of problem (directions)
- Who and what is it about (first sentence)
- Pictures/graphs/shapes/charts/
- Titles, keys, captions, scale
- Bold words, math words
- Parts? A B C or 1, 2, 3...

After reminding students what to look for remind them of the time and they should do this silently. Tell them, “GO.”

For math you can ask 3-4 of the following questions:

1. What was the situation? (Who, what was it about ?)
2. What did the visual show?
4. What are 4+ math words that are related to this kind of math? Or what words would you expect to be included this problem?
5. What are 2 questions you think might be asked?
6. How many questions/parts were there? What kind of question—multiple choice or open response?
7. What kind of math is required here? (geometry, number sense, measuring, statistics, graphing, patterns...)
- 8 Anything else any other details you noticed?

After the quiz, have them check with a neighbor, go over the answers. Have them report their scores (how many got all 5 right? How many got 4 right? 3? Less than 3?) Then ask if you were going preview again, what would you do differently? Repeat and look for improvement.

Abe stacked boxes onto a truck. Each box he stacked had the same weight. The table below shows the total weight for different numbers of boxes.

Total Weight of Boxes

| Number of Boxes | Total Weight (in pounds) |
|------------------------|---------------------------------|
| 2 | 50 |
| 4 | 100 |
| 6 | 150 |

- a. What is the total weight, in pounds, of 8 boxes? Show or explain how you got your answer.
- b. Based on the table, write or describe a rule that can be used to find the weight of n boxes, where n is any number of boxes.
- c. Is it possible for the total weight of the boxes Abe stacked onto the truck to be **exactly** 520 pounds? Show or explain how you got your answer.

From MCAS — grade 5 2013

Mark it Up Game!

Prepare: Scan, copy the article for use with a document camera, or prepare an overhead.

Objective: Students will be able to mark-up a passage that shows they understand what they read.

Explain: Tell students that with complicated articles, many readers read with a “pen in hand.” They do this to actively attend to the text, make connections, summarize passages, and mark up parts to return to later. Explain that readers have different methods of “marking” or “annotating” the text. Often it is a combination of underlining, drawing lines down the side of a text, writing words or symbols in the margin, or highlighting. It is important not to over-underline or over-highlight a passage, because then it’s hard to see what is truly important.

Tell students, “I will read this passage and mark it up in a way that’s helpful to me. I want you to “do what I do” (later, we will discuss other options for marking it up). Next, you will read a bit and mark it up in your way. We’ll put some student samples up on the overhead and discuss how effectively each person has marked up his/her passage.

Some key things to think about when you model complex text:

1. Use underlining and circling sparingly. Try just to hit key words. I sometimes use circling for characters/people and for setting (when, where). Model how you can retell the paragraph just by the words you have underlined and circled.
2. Use “two words” by writing just 2 words (or 3) to summarize a section or paragraph. This helps students think about the main idea. Students can disagree about what two words to pick, but it will be a good conversation if they can support their ideas.
3. Use icons (not fully developed pictures). A picture is worth 1,000 words so if students can quickly draw something to represent what is in the scene that can be a good idea.
4. Use common symbols for shocking parts: ! or confusing parts: ? or for important things ★
5. **In math I use underlining for key information and parentheses for things you (need to solve) or (need to do).**

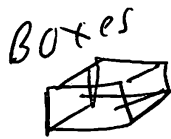
Follow up: After modeling, have students read some of the passage on their own and then put student samples up on the projector or overhead to critique. Have students explain what they did and why they did it. If they’ve done a good job, they should be able to retell the article part by part. Also, play the “Look Back” game and see if the annotations helped them.

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Also see: Syntax Surgery from *When Kids Can't Read* by Beers

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Total Weight of Boxes

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+50
+50



8

a. (What is the total weight) in pounds, of 8 boxes? (Show or explain) how you got your answer.

n

b. Based on the table, (write or describe a rule) that can be used to find the weight of n boxes, where n is any number of boxes.

T = 520

c. (Is it possible) for the total weight of the boxes Abe stacked onto the truck to be exactly 520 pounds? (Show or explain) how you got your answer.

The Look Back Game

Prepare:

Find any reading selection that has text features or content that students need to know. Make copies for each student and if possible, make a transparency for the overhead or scan for Smart-board. Read the passage with the children.

Explain: Tell students, “Today we are going to work on a critical reading skill: Looking Back by Skimming. We are going to play a game called the **Look Back** game. In a minute, I will ask to you look back in the article we read together and find a specific spot. It will probably be an important detail or some key idea. You should think to yourself, “Where is that part? Beginning? Middle End?” Then go back and find it. When you find it, circle it (or point to it) and raise you hand. If the whole class their hand up in 20 seconds we will get a point. (If 75% of class has hand up then award ½ point).

Ready? Find the part where...”

Play for a while by asking students to find different spots: Where does the article tell about... ? Where does the article explain the meaning of... ? Find the place where the chart the shows the population of... ? Where it shows... ? Where in the poem does it compare.... ? Find the place where it describes... ? You can ask inferential type questions also, and have them find the general place to go for support.

After playing for a while, ask students how certain students how they found things so quickly. Remind them that good readers skim, they use key words, and headings. They run their finger along the text, they look for numbers, and use the pictures.

Tell students that when you read the article for the first time, you should mark it up in the margins, react to what you are reading by putting question marks, exclamation points, or little drawings. You might show them a passage that you marked up and talk about how you could find parts easily because of how you marked it up. For example, “I found the shocking part about the icebergs quickly because I had written WOW in the margin.”

Consider having a prize if the class gets to five points after playing just 7 rounds. See if they can break their record the next time.

Follow up

Whenever students argue, study, or answer questions tell them to look back and find the place. When they answer orally, make them say, “IN PARAGRAPH 4, it says...” “IN THE TIME DISTANCE GRAPH, IT SHOWS THAT...” Make them always refer to the part where they found the key information. Then, ask follow up questions that force students to explain the quote more fully.

For the math problem, I might say:

1. Look back and find who is in the problem.
2. Look back and find the title of the chart.
3. Look back and find the total weight of 4 boxes.
4. Look back and find the question that asks about the weight for 8 boxes
5. Look back and find the bold word **exactly**
6. Look back and find the question that asks for a rule with a variable n