
Reacting to Reading: Responding to Text (Graffiti)

MATHEMATICS Grades 10 - 12

Graffiti is a strategy of free expression on posters located around the classroom. Each Graffiti chart begins with a teacher-selected mathematical statement and/or question based upon text reading.

Purpose

- Give students the opportunity to read, reflect, and draw/write about topics in mathematics.
- Allow for free expression on a given topic.
- Provide students with an opportunity to consolidate learning or make connections to prior learning.

Payoff

Students will:

- connect prior learning to this topic.
- expand their understanding of the topic by reading.

Tips and Resources

- Use playing cards to randomly assign groups. (If you have 28 students then the teacher has the aces through sevens in hand from the deck.) The students randomly pick a card upon entry to the classroom.
- For sample role descriptions designed to promote small-group discussion, see the Group Roles strategy in the Oral Communication section of *Think Literacy Approaches, Grades 7-12*.
- Have each group use a different coloured marker to distinguish the groups.
- The entire process should take about 20 minutes. If students are given too much time at any one station they will lose focus.
- This is a good strategy for consolidation at the end of a unit.

Beyond Monet, pp. 174 – 177.

Further Support

- Assign two students to the role of reporter, to ensure that struggling or English Language Learners are supported if they are chosen as the reporter.

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Notes

What teachers do	What students do
<p>Before</p> <ul style="list-style-type: none"> Select the correct number of playing cards in order to randomly assign groups. Record individual focus questions and/or statements that reflect information from the course/unit or topic on to sheets of chart paper and post them around the room. Provide different colour markers so that each group has a different colour. Ask students for their definition of graffiti (e.g., “scribbling thoughts or feelings on walls in public places”). Instruct the students on how they will rotate through the stations. Remind students that they will be assessed on communication skills as well as group dynamics. 	<ul style="list-style-type: none"> Contribute to the discussion about graffiti.
<p>During</p> <ul style="list-style-type: none"> After a given time signal for the students to move to another station (taking their coloured marker with them). Monitor the activity and make anecdotal notes as necessary about the students’ understanding of the concepts as well as group and individual communication skills. 	<ul style="list-style-type: none"> Actively listen when others are talking. Be respectful of each other’s input. As a group rotates on the teacher’s signal through the stations; take the coloured marker with you. The role of recorder should rotate. Take turns contributing ideas to the chart paper.
<p>After</p> <ul style="list-style-type: none"> Assign students within each group to summarize the information on their last chart. Have each group report to the rest of the class on the summary of that chart. Encourage students to respond to each report as it is given. Invite students to reread the charts and jot down the top three ideas for each chart topic in order to prepare some study notes. 	<ul style="list-style-type: none"> Summarize the chart page. Choose a reporter who then presents the summary to the class. Respond with clarifying questions or comments. Look at all the chart pages and take notes to build study notes for the topic/unit.

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**Topics for: Advanced Functions and Introductory Calculus;
Geometry and Discrete Mathematics;
Grade 12 Workplace Mathematics.**

Advanced Functions and Introductory Calculus Questions: (end of year review)

1. What do you think of a graphical approach to develop a visual understanding of a derivative?
2. The derivative is a limit.
3. What do you know about Differentiation in Calculus?
4. What do functions have to do with math anyway?
5. Where's the Math in Calculus?

Geometry and Discrete Mathematics Questions: (end of year review)

1. What is a proof? Explain and give examples.
2. What do you know about Cartesian and Geometric Vectors?
3. What do you know about Equations of Lines and Planes?
4. What is the difference between a Permutation and a Combination?
5. How can Pascal's Triangle help you count outcomes?

Grade 12 Workplace Mathematics Questions: (end of year review)

1. How are graphs used in real life situations?
2. Where's the Math in buying a home?
3. What's a budget? Why might you have one?
4. How is the Pythagorean Theorem used in real life?
5. What's the same and what's different between the Metric and Imperial systems of measurement?

