

REFER TO THIS DOCUMENT WHEN WRITING YOUR LETTER.

In engaging with the elementary school students we are endeavoring to help them become better problem solvers and more engaged in mathematics. You should consider yourself a mentor. What does that word mean to you?

### **Writing the first note to your Math Buddy**

#### **General**

Goals: The first note to your math buddy will be slightly different in form than the rest of the letters.

- Our main goal with the first letter is to introduce you, establish a connection with your buddies, and comment briefly on their work.
- We will comment on their mathematics in a rather general, but useful way for this letter. As a mentor we want to encourage them and help them without criticizing or telling them what to do. We will always want to praise something they have done well and prompt them to help them do something better. (We call this our “praise and prompt” section or P&P)
- In future letters, our main goal will shift to helping them more with their problem solving, although we will retain a personal component to the letters.

Writing to 5<sup>th</sup> graders:

- Remember you are writing to 5<sup>th</sup> graders. Some of these students struggle with English. Use short sentences and paragraphs with a blank line between paragraphs. (In the praise and prompt sections limit it to one idea per paragraph.) However, do not treat them as “little kids”; they are the 5<sup>th</sup> graders and the top of their school – they want to be treated as such.
- Some students write a lot and some write very little. Take a cue from their work and respond accordingly. Don’t write a 3 page letter to someone who did 2 lines of work – they likely won’t read it all. Feel free to write more to someone who has written a lot to you.
- You are in college; your work should be grammatically correct and free from spelling errors. Your letters should serve as a model to them on proper writing. These letters will be seen by their teachers and parents. Your work reflects on yourself and WOU. You will be graded down if your instructor must correct grammatical or spelling errors in your work. If you struggle with this area, you should plan visits to the writing center.

**The Letter:** The letter will have 3 parts: an introduction, a P&P section and a closing. Always be as concise as possible. Extra words can add confusion. Limit your response to no more than 1-2 pages typed (12 pt font).

**Introduction**

- Start notes to your Math Buddy with a greeting; use their name and a friendly opening sentence.
- Introduce yourself – DO include general information (some ideas: why you want to be a teacher, your year in college, your favorite hobbies, talk about your pets, your favorite food, etc.)
- IF your buddy wrote you a letter, respond and answer any questions they asked provided they aren't too personal. Do not engage in conversations about religion or anything you consider too personal. If they ask you a question you'd rather not answer, just don't respond to it or ask your instructor for advice.
- DO NOT include really personal information (e.g. your religious preference, information about your boyfriend/girlfriend, anything else you consider too personal)
- DO NOT say you "hated math" as a kid. You don't have to say it was your favorite subject, but avoid continuing the stereotype of "math is hard and useless". If your students indicate they don't like math you can say something like "It's ok to struggle with math – I'll try to help you out!" or even "I struggled with math in 5<sup>th</sup> grade, but hard work helped to make it easier".

**Praise and Prompts**

In the *next problem* students will be revising their work based on the prompts you have for them. For that we will make very specific comments about their work as it relates to the problems so our comments help them get to or improve their solution.

For the first letter we just will praise them for specific things they have done well that apply more generally to the problem solving process and give prompts that are applicable in a slightly more general way.

So we aren't trying to help them fix all their mistakes in this letter, you don't have to worry about writing enough to help them do the problem correctly (they aren't going to work on this one anymore) but DO praise and prompt general "good practices" they have or have not shown. For example, give compliments on correct answers, organization and explanations or comments reminding them to check their work or to be sure to answer the question that was asked in the problem.

The state scoring guide can be used as a reference for things that are important in problem solving. By examining the rubric you can praise them on

things that they did that are valued by the rubric and prompt them on things they did not do that is valued by the rubric. Keep the scoring guide handy as you prepare your praise and prompts.

Below are some examples of general praise and prompts. Remember for this section it's best to focus on one idea per paragraph.

### **Praise**

What did your Math Buddy do that was good and we want to encourage them to continue in future attempts to solve problems? **Try to address their mathematics here, not just their handwriting or picture drawing.** Tell them specific things you liked and **WHY**. Don't be too general. For example instead of "I liked your explanation" say "I appreciate how you told me how you found all of the numbers in your problem".

Examples (comments in italics)

- I like how you organized your thoughts in a table. (*praise*) That made it easier for me to follow. (*Why that is important to problem solving*)
- I like how you used units in your problem. (*praise*) There were a lot of different numbers and that helped me keep track. (*Why that is important to problem solving*)
- I like that you checked your work in a different way. (*praise*) That helps you defend your work and be sure your answer is correct. (*Why that is important to problem solving*)

### **Prompts** (Suggestions and/or Questions)

What will help the student become a better problem solver? The scoring guide states that explanation is important. If their work is hard to follow, suggest some ways to improve their explanation. Verification is important, if they did not verify their work suggest they try to think of a way to check their answer or reflect on their process. Be specific and explain your comment! What purpose does your suggestion serve for helping their solution be better? For example instead of "I would like to see more explanation" say "I was wondering how you decided to multiply the 150 students by 2 slices of pizza per student." (prompt) "It is helpful when you explain why you chose your way to solve the problem." (reason for suggestion)

Examples:

- I was wondering what the 150 meant in your work. Is that students or pieces of pizza? (*prompt*) It is helpful when you use units with your work so I can understand what you are doing. (*reason for suggestion*)
- I see you found that  $\frac{1}{4}$  of 600 is 160. Perhaps you could check your work by adding 160 four times to see if you get 600. It's a good idea to check your work so you don't make simple mistakes.
- If there are no real big problems you can try to get them to do more. For example:
  - Next time I'd love to see you try the problem in a different way to

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check your work!

- You did a great job! Next time write a little to tell me if you thought the problem was easy or hard and why.
- Great work! Have you done problems like these before? Did you solve them the same way?

### **Closing** (1 short paragraph – 1 sentence is OK)

- If you didn't do so in the introduction this is a good place to try to keep the personal conversation going by asking them some questions (what is their favorite subject, have they done math buddies before, do they like pets, etc)
- Close with an encouraging phrase. For example: "I am excited to work with you." or "I look forward to seeing the work on your next problem."

### **Signature** (Sign your name)