

Procedures for Easel Pad Problems:

Teacher's Guide to Implementation: (53-minute class):

- A) Students will be given the intended learning objective before they are given their Letter, (ABC or D).
- B) Each of the 4 students in each group is assigned a letter, (ABC or D). It is important to have exactly 4 students in each group. If less, you can assign one student to have more than one job, but it is best with exactly 4 students in each group.
- C) Each group is given a colored dry-erase marker to use at their starting poster-easel pad page, which are numbered. For example: Group 1 will be given a blue marker, because easel page #1 has a large 1 drawn on it in blue.
- D) The student who is assigned letter A will do everything on their page that is associated with problem A for their poster or easel pad page. For example: If they have to write the fact down and then estimate or solve, they will write the math fact down and do everything else it tells them to do. Other group members can help that student with the work, but the student that is assigned letter A will do all of the writing.
- E) The teacher will use a timer for each problem. The teacher can assign 5 minutes for the first problem, 6-7 for the second problem, 7-8 for the third problem, and 8-9 for the last problem.
- F) Once each group is done with their A problem, they then travel to the next easel pad page, and the person who is assigned letter-B works on the second problem for that particular easel page. For Example: Group 1 will start at poster 1. The A-letter student writes the math fact and does what they are told to do mathematically. When time is up, group 1 will then move to poster 2. As a group, they all collaborate around the work that is already done on that poster. They read the math fact, which is different from their original math fact, and they make sure that everything is correct. If they find that there is an error, they can correct it with their colored marker. If they are not sure there is an error, they can write down their suggestions next to the

- original work with their marker. Once they are done, as a group, critiquing the work of the previous group, student letter-B will then read question B and do all of the math work required for that particular problem. This will continue until each group has moved 3 posters past their original poster. Each of the students in the group will answer the corresponding letter on the poster that they are directly looking at. While this is going on, all of the students can share their critique, reasoning, or strategies on how to answer previous work or the work in front of them.
- G) When time is up the students will then go back to their seats.
 - H) The teacher will then call the original letter-A student up to grab the original poster they started at. They will take that poster back to their group. They will then be given 5 minutes to critique all of the work on their poster. Since 3 other groups wrote on their easel page, they can make corrections on anything they think is not correct.
 - I) The teacher will then call one presenter from each of the 4 original problems up to present their findings. Since there are usually 2 different kinds of problems that groups start with, it is suggested that one presentation for each is perfectly done, and one has mistakes that were corrected. This gives students an overview of what correct and incorrect work looks like for any particular problem. These presentations will also lead to class discussions if anyone in the class thinks they have different strategies on how to solve the problem, or if they think something is still wrong with any particular poster problem.

Grouping and Modifications:

Students are placed in groups by their achievement levels. There is always at least one high achieving and one low achieving student in each group. Questions can be changed to modify the difficulty. Lower achieving groups might be given more common fractions or percents to deal with in their problems.

Type of Activity:

This is a culminating activity, and it is done after students have practiced many percent problems individually and in groups.