



Sample Math Games:

Here are three sample games, which you can use with your students to help with review and give examples of how games can help learning.

College Bowl

This game can be used in math or any other subject area. It has the benefit that six or seven children are involved in answering a single question at a time in addition to a group question at the conclusion of each round.

Materials: small laptop chalkboards, chalk, and erasers for each group. (Or actual laptops, if available)

Directions: The class should be divided into groups of five or six. Move desks into small groups. Each group sends someone to get a chalkboard, eraser and chalk (or laptop.) No mad dash - just one from each group.

1. Each group chooses a favorite college team to represent their group: Penn State Lions or Notre Dame Fighting Irish. Someone from the team puts the team name up on the board/computer so that you can keep a tally of points earned. The person getting the board starts the game.
2. The teacher poses a question for the students. Only the student with the board answers the question. Not having help keeps the noise in check and class under control. It also enables the teacher to check on several individuals' understanding levels. Students in the groups can practice or take notes, though.
3. If the student answers correctly he/she may go up to the chalkboard (or interactive whiteboard, if available) and add a point for the team. (I suggest the teacher keep score, too - to avoid any errors or arguments).
4. After each student has had a turn individually, I offer a three-point question. This helps to keep the game close and gives them a chance to

work out steps together. (Maybe someone who wouldn't know the answer will gain knowledge from another student!) In Social Studies, Science, or Language Arts it may be a three-part essay question. In Math it could be a tough division or higher-level problem. In any case, it is a group effort, and the points earned make them happy and supportive of each other.

5. The winning team might earn bonus points on the test, a "no homework" coupon, a coupon to the student store, or a new folder for their papers??? It is up to you.

Rev Up Your Motors

This game is very similar to College Bowl. Students work in a group. I usually use this game in Math class for reviews.

Materials: Paper racing cars one for each team; Tape; A measured track for answers with a Start, lines for 10 - 15 questions, and a Finish line

Optional materials: (see #2 below): roll-type paper (butcher paper,) laminated construction paper and overhead (wet erase) pens

Directions:

1. Divide the class into groups of six. Provide groups with a white copy of a racing car. If time allows, I let them decorate their car with colors/glitter. Sometimes they even draw and design from scratch the day before as an end of day activity, but only if you have time.
2. Place the six cars on the track, using tape on the back of each car. The track I use is old roll-type or butcher paper, and I give each car its own track. Laminated construction paper and overhead pens could be used too. The tracks should be evenly measured so that the progress of each car can be carefully monitored.

Options:

A. Put the problems on your whiteboard or projector ahead of time. If easier, create simple worksheets with the problems. You could actually create answer keys ahead of time. Use the same problems, but put them in different positions on the different teams' tracks. If the student answers correctly, he may advance his/her car. It might be fun to have an "Engine stalled " card if they don't get it right, but whether this is seen as mean or funny depends on the class personality.

B. Have small index cards for each group already created with answers on the back. Again, similar questions and problems may be used, just mix them up. When the student pulls a card he/she may write the answer (work out the problem) on the sheet. If correct, they may move the car along. By mixing the order of problems for each group, you eliminate teams looking at the neighbor's track.

- C. If you have no time to prepare materials, then play the game and orally give the problems simultaneously, asking for honesty and doing your own work. Most students will oblige.
3. The students have time to work out their problems. Keep it fair. If possible do not allow too much time difference for any particular student but keep special needs in mind.
 4. The winning team is the first team to cross the finish line.
- Option: You could allow the other teams to finish the race if it is close.

Roll 'N Score

Materials :

1. Giant soft dice (purchase at a Wal-Mart, K-Mart or teacher resource store)
2. Colored construction paper to mount your questions or math problems on. Or you could prepare a few computer worksheets (with color-coded fonts as explained below) and share them on your projector or interactive whiteboard. You could even write the problems as you go, using your markers for your interactive whiteboard.
3. Enough questions for each student to answer 2-3 times (depends on class size and class time.)

Directions:

1. Divide the class in half. I usually do this - I feel allowing the choosing of teams takes too much time and causes too many hurt feelings and uneven teams. I also set the stage for who is running the show: the teacher.
2. Clear the middle of the room. Have each student face his/her chair across from a classmate on the opposing team. That will be the face-off opponent. Students can move the order of their team after each round.(I say "1-2-3- scramble," let them reorder themselves, then say "stop." They must sit where they are at the stop signal to start the next round.)
3. Explain the game rules.
 - a. Choose the level of difficulty you want your question to be:

Orange - difficult

Yellow-middle

Black - a review question from the last unit

Green - easy

This allows freedom and a release of tension for the weaker student and the freedom for the brighter students to challenge themselves. I have found over the years that the truly motivated student does not opt for the easy way out, but relishes the chance to show his/her classmates what he/she can do! If you do not get a chance to prepare the questions on colored cards, just write them on the board.

b. Roll the dice. The roll tells the number of points you could earn for your team. (Option: you can answer the question or you can pass to the other team and there is a "face off." In a face off, the person who sits across from YOU on the other team will try to answer the question. If they answer correctly they receive the points, if incorrectly you get the points.)

c. If you answer correctly your team scores. Move to the next student. I encourage my students to take notes during the game or to practice the math problem being proposed. This provides them with a study guide and gives them good practice before the test. It also gives me an idea if the class is truly ready for the test

d. The winning team receives lollipops, sticker stars, extra credit points on the test, or simply satisfaction in winning.