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Lesson Plan
Multiplying for Problem Solvers
Subject: Math, Grade 3

Description

Students will work in pairs at the computer creating story problems using multiplication alone or in a two part problem with addition or subtraction. They will use the keyboard to type out the problems and use pictures to illustrate or help solve the problems. They will save their problems so that all classmates will have a chance to do all problems.

In the third grade learning the multiplication tables is a main requirement. Also, learning how to relate math to real life situations is an important skill at this grade level. In doing this activity they will learn by creating their own story problems and then by solving the problems created by their friends as well.

Faith Integration

Whenever kids work together, they are using co-operative skills. They learn to accept each other's differences and respect each other's ideas. My hope for my class is that they will realize what a miracle it is that each of us is different with qualities, abilities, and personalities that are all unique.

When Christ walked on this earth, He saw only the good in people. He didn't even find any fault in his accusers. Christ showed us true love for others and how we can benefit by enveloping all the wonderful and unique differences we will find in those around us.

Last year my class focused on conflict resolution skills all throughout the school year, culminating with a play for the whole school. Even with this focus, it was often hard for some to deal kindly with their peers. I think by using groups (especially teacher chosen groups) in class work and in play, I am helping my class develop skills in dealing with their peers in a Christ like manner.

Curriculum Benchmarks

I will be quoting the following NETS Standards for Students from the web site. I believe we will be meeting some – not all – of the criteria in these two categories.

“3. Technology productivity tools

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.”

“6. Technology problem-solving and decision-making tools.

- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.”

Materials/ Hardware/Software

The students will need: Access to a computer
Kid Pix Deluxe 3 software program
Color printer, if available
Floppy disk to save work on

The teacher will need: Practice sheets for those not on the computer
Illustrations of what is expected in a broad way so that the kids will use their own creativity.

Teacher Preparation

Teacher can create a few examples using Kid Pix to show the kids various ways to create their story problems. The teacher should make it very clear to the kids that they should use their own creativity on this project and explore, with their partner, interesting ways of writing out the math problems. The teacher should also go over skills for writing story problems that will be understandable for classmates, it would be a good idea to look over some examples for this as well.

Teacher also need to copy practice sheets from the regular 3rd grade math textbook or other workbook for those not using the computer at that time. The class will probably be going on in their book to various assignments in the time span it may take for everyone to create their problems and for everyone to be able to solve the problems. This is why having a color printer would be great. Then the teacher could copy the problems so each student would have a copy of all the problems. Also, the teacher could make them into transparencies for the whole class to view together.

The teacher will also need to go over reminders with the class: how to save to the floppy disk, how to save within Kid Pix Studio 3.

Lastly, the teacher should let the students know what is expected in the end result of the project and how the grades will be given. (See Rubric)

Student Preparation

Students should have learned to use Kid Pix Studio 3. Students should have practiced and are mastering their times tables. Students must know how to save to either the class math folder or to the floppy disk.

Assessment/Evaluation

See rubric, page 5.

Follow-up Activities

To continue mastering the skill of solving story problems, the class would do 3-5 story problems everyday, no matter what the assignment is, they would always do a few story problems.

Teacher would have the class use the computer again to write story problems involving some other aspect, such as measurement or estimation.

It would also be fun to make a laminated booklet including all of the problems made during this project. It could be used over and over with a wipe off pen and could even be used in the following years by other students.

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RUBRIC

CATEGORY	Excellent	Good	Satisfactory	Needs Improvement
Working with others	Student was an engaged partner, listening to suggestions of others and working cooperatively throughout lesson.	Student was an engaged partner but had trouble listening to others and/or working cooperatively.	Student cooperated with others, but needed prompting to stay on-task.	Student did not work effectively with others.
Mathematical reasoning	Uses complex and refined mathematical reasoning.	Uses effective mathematical reasoning	Some evidence of mathematical reasoning.	Little evidence of mathematical reasoning.
Neatness & organization	The Problems were written in an easily understandable way.	The Problems were somewhat easy to understand if read over again.	The problems were hard to understand, also hard to work out answers.	The problems were hard to understand and could not be worked out correctly.
Checking	The work has been checked by two classmates and all appropriate corrections made.	The work has been checked by one classmate and all appropriate corrections made.	Work has been checked by one classmate but some corrections were not made.	Work was not checked by classmate OR no corrections were made based on feedback.
Completion	All problems are completed and saved to disk.	All problems are completed, but not saved to disk.	All but 1 of the problems are completed and saved to disk.	Problems are not completed and not saved to disk.
Use of Manipulatives	Student uses the computer to create a colorful worksheet of multiplication story problems.	Student uses the computer to create a black and white worksheet of multiplication story problems.	Student uses the computer to create a worksheet of problems other than multiplication story problems.	Student does not use the computer to create the worksheet. Student rarely listens and often "plays" with the manipulatives instead of using them as instructed.