

Teacher/School: Jessalyn Christenson

Unit Title: "Tiger Math" (taken from the book of the same title by Ann Whitehead and Cindy Bickel)

Grade Level: 4th

Subject/Topics:

A combination of Reading, Math and Science skills will be taught, discussed and learned in this lesson. This summer's training provided insight on incorporating reading with Math as well as providing me with the book that is used in this lesson.

Time Needed:

5 days (Math, Science and Reading time for all days), and one more day to present.

Learning Objectives:

What will students learn?

The students will learn (or have these reading skills reinforced) how to make and use Reading Thinking Maps, students will learn to read, use and make several types of graphs, students will research, learn and present information about tigers.

What is essential for students to know or understand about the subject?

It is essential for students to learn how to use thinking maps, and how to read, use and make the math graphs.

If students remembered one thing about this study, what would it be?

The experience of creating and presenting a report with many types of information.

Sunshine State Standards:

Math:

MA.B.1.2.1
MA.D.1.2.1
MA.D.2.2.2
MA.E.1.2.1
MA.E.1.2.3

Language Arts:

LA.A.1.2.4 LA.B.1.2.1 LA.C.3.2.1
LA.A.2.2.1 LA.B.1.2.3 LA.C.3.2.4
LA.A.2.2.5 LA.B.2.2.4
LA.A.2.2.7 LA.C.1.2.1
LA.A.2.2.8 LA.C.1.2.4

Science:

SC.F.1.2.2
SC.G.1.2.2
SC.G.1.2.5

Materials/Supplies:

Tiger Math (by Ann Whitehead and Cindy Bickel), pencils, paper, one binder/folder per child, research books, and internet access

Assessment

Grades can be taken daily on student work for each of the subject areas. If no actual written work is done on certain day for a certain subject then you can take a participation grade.

*A grade can be taken on the written report as well as the presentation. (Each teacher can decide in which subject to record these grades)

*A final grade can be taken from the completed binder. Students should organize their binders with ALL graphs, thinking maps, drafts of report, etc. used in this unit.

Instructional Procedures:

What will the teacher be doing? What will the students be doing?

Day 1: Reading time

1. (Do this only if you have not used the Flow Map and the Double Bubble Thinking Maps- Introduce students to the Double Bubble Map. Do this by modeling one on the board. Use two things that are relevant to the students' lives, such as Math Lab and Reading Lab. Next, allow students to do their own double bubble. Again, it is necessary for them to do this using something very familiar to them such as themselves and a friend. Repeat procedure with the Flow Map. (Have students put this in their binder)
2. Before placing the maps in their binders allow students to share their thinking maps with the class.

Day 1: Math Time

1. Show students the picture graph on page 8 of the story. Reread to them the explanation below.
2. Discuss what information would be easy to read in the form of a picture graph.
3. Choose one topic and make a picture graph on the board as a class. Have the students copy the graph. (They need to put this in their binder)
4. Show students the circle graph on page 10. Reread the explanation below.
5. Discuss what information would be easy to read in the form of a circle graph.
6. Choose one topic and make a circle graph on the board as a class. Have the students copy the graph. (They need to put this in their binder)

Day 1 Science:

1. Make a KWL chart on tigers as a class
2. Have each student choose a type of tiger to research. (You can stick to the 5 major types discussed in the book if you would like)
3. Have each student come up several questions they would like answered about their type of tiger
4. Students must show teacher their list of questions and have it approved.

Day 2 Reading:

1. Teacher will gather students around and read Tiger Math. Be sure to read graphs and briefly explain about each one. (give students time to view and discuss all pictures and graphs as well)
2. Discuss events and important tiger facts talked about in the book.

Day 2 Math:

1. Review the graphs that were made and discussed yesterday.
2. Repeat yesterday's steps in discussing/making graphs, but use pages 14 and 16 to make bar graphs and double bar graphs. Be sure to have them place their graphs in their binders.

Day 2 Science:

1. Make sure all students' questions have been approved by you (the teacher).
2. Give students time to begin researching their type of tiger. (This research will become a short, written report and the students will be presenting their information to the class)

Day 3 Reading:

1. Review Thinking Maps that were made on Day 1.
2. Reread Tiger Math. (If you have several copies you could have the students read in the story in groups)
3. Have students make their own Flow Map and Double Bubble Map. For the double bubble map they may choose what information to compare/contrast. They could compare/contrast the baby tiger to the adult tiger, or two different types of tigers discussed, or any other important information in the book.

Day 3 Math:

1. Review picture graphs and circle graphs.
2. Discuss what type of information is best to be represented with picture graphs and circle graphs.
3. Students choose what information to show using the above graphs. Once the teacher approves both ideas, the student may make his/her graphs.

Day 3 Science:

1. Student continues to research their tiger
2. Teacher must monitor students' work and progress.

Day 4 Reading:

1. Students share thinking maps that they made yesterday
2. If Time remains students may continue to research their tiger and/or begin writing their report.

Day 4 Math:

1. Review bar and double bar graphs.
2. Discuss what type of information is best to be represented with bar and double bar graphs.
3. Students choose what information to show using the above graphs. Once the teacher approves both ideas, the student may make his/her graphs.

Day 4 Science:

1. Students complete research on tigers.
2. If students are finished, they may begin to write their report.

Day 5 Reading:

1. Students finish writing report.

Day 5 Math:

1. Choose a few students to share graphs. (Make sure at least one of each type of graph is shared)
2. Students take a test on graphs.

Day 5 Science:

1. Students must finish writing reports.

Day 6:

1. Students present reports.