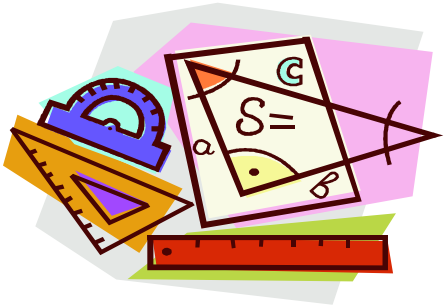
Algebra/Geometry Institute Summer 2005

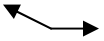
Lesson Plan 3: Angle Action



Faculty Name: Latonya Johnson
School: West Bolivar Middle School
Grade Level: 6th

1 Teaching objective(s) Mississippi Framework
#20--Identify, classify, and measure right, acute, obtuse, and straight angles

2 Instructional Activities

- The teacher will ask the students to name some places in the classroom where they see angles. (Wait for student responses.) After commenting on the students' responses, the teacher will explain the four types of angles that are to be written on the board as follows:
  - Acute angle: measures less than 90°. ()
  - Right angle: measures exactly 90°. ()
  - Obtuse angle: measures more than 90° but less than 180°. ()
  - Straight angle: measures exactly 180°. ()
- After discussing the definition of the angles, the teacher will use a large clock to demonstrate the angles using certain times of the day (Attachment 1). As the teacher displays the time on the clock, the students will be asked to name the angle formed by the hands on the clock.
- Next, the teacher will place a transparency (Attachment 2) on the overhead projector and ask the students to identify the angles according to their appearance.
- After completing that activity, the teacher will place a second transparency (Attachment 3) on the overhead projector and ask the students to identify the angles according to their degrees.
- The teacher will then place a third transparency (Attachment 4) on the overhead projector and ask the students to study the picture. The teacher will read a series of questions one at a time to the students and have them write down their answers. The questions to be read are as follows:

1. What kind of angle is <ABC?
2. What kind of angle is <DBF?
3. Name a straight angle.
4. What kind of angle is <ABG?
5. What kind of angle is <CBD?
6. What kind of angle is <GBE?
7. What kind of angle is <FBE?
8. What kind of angle is <DBE?
9. What kind of angle is <ABD?
10. What kind of angle is only shown once in the figure?

- After the completion of all the activities, the teacher will review the four types of angles and ask the students if they have any questions about the activities.

- If time permits, the teacher will give the students a quiz on classifying angles (Attachment 5).

3 Materials and Resources

Chalkboard/whiteboard
Transparencies
Overhead projector
Large clock
Handout (Attachment 5)
Textbook: Harcourt Brace & Company; Mathematics Plus; Copyright 1994.

4 Assessment

- The teacher will first assess the students' oral responses to each activity as part of class participation. The teacher will use a numerical grade for the assessment of the quiz.

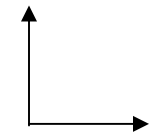
Attachment 1

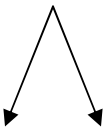
Demonstrate the following times using a large clock and have the students identify the angle formed by the hands on the clock.

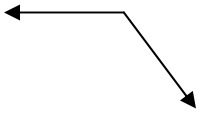
1. 9:30
2. 7:45
3. 6:15
4. 12:20
5. 1:10
6. 3:35
7. 6:45
8. 8:50
9. 9:05
10. 12:15
11. 7:40
12. 5:00
13. 1:30
14. 6:20
15. 8:00

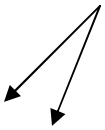
Attachment 2

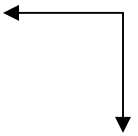
Identify each angle as right, obtuse, acute, or straight.

1. 

2. 

3. 

4. 

5. 

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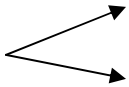
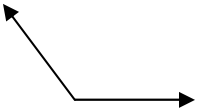
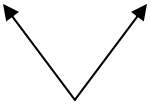
7. 

8. 

9. 

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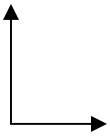
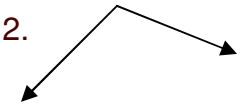
11. 

12. 

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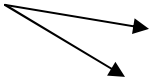
14. 

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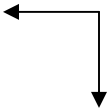
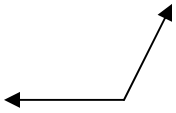
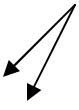
16. 

17. 

18. 

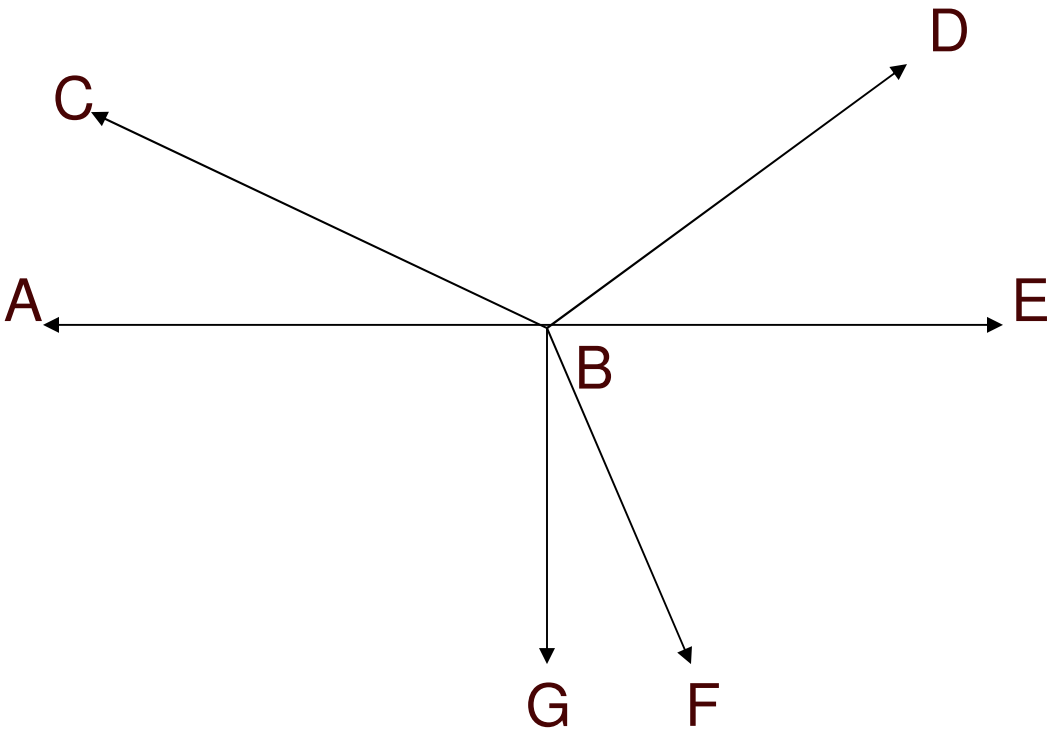
Attachment 3

Classify each angle as acute, obtuse, right, or straight according to its degree.

1. 40°
2. 115°
3. 90°
4. 75°
5. 180°
6. 170°
7. 25°
8. 90°
9. 42°
10. 92°
11. 60°
12. 98°
13. 80°
14. 148°
15. 73°
16. 100°
17. 180°
18. 89°
19. 62°
20. 125°

Attachment 4

Study the diagram below.

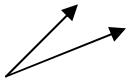
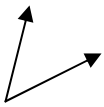
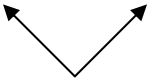
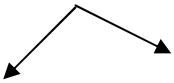
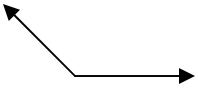
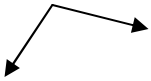
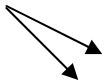
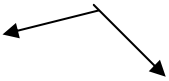
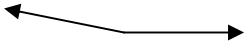
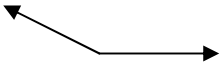
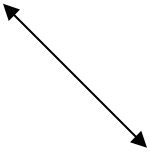
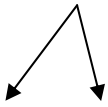
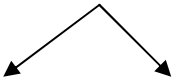


Attachment 5

Name: _____ Date: _____

Classifying Angles

Classify each angle as acute, obtuse, straight, or right.

1.  _____	2.  _____	3.  _____	4.  _____
5.  _____	6.  _____	7. _____	8.  _____
9.  _____	10.  _____	11.  _____	12.  _____
13.  _____	14.  _____	15.  _____	16.  _____