3rd Math Enrichment Activities:

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**Packet to be submitted upon return to school.
GRID PROBLEMS

DIRECTIONS
Write the given numbers in the blank squares so that the sum both across and down is the same.
These problems have more than one solution, but you do not have to find more than one.

PROBLEMS
1.  8, 9, 10, 11

2.  7, 8, 9, 10, 11
3. 2, 4, 6, 8, 10

4. 1, 3, 5, 7, 9, 11, 13
Magic Squares

1. Arrange the digits 3-11 in the squares so that the total of each row, column and diagonal is the same. Hint: The rows, columns and diagonals must total 21.

2. Arrange the digits 17-25 in the squares so that the total of each row, column and diagonal is the same. Hint: Place the middle digit (the number half way between 17 and 25) in the center circle.

Bonus: A perfect square is a number formed by multiplying a whole number by itself. 9 is a perfect square ($3 \times 3 = 9$). What perfect square can be turned upside down and still be a perfect square?
Magic Square Formula

The magic square has a secret. To solve or create a magic square, memorize the order of letters placed in the square below. Always place the consecutive numbers in the A, B, C order shown. You will be able to solve magic squares in a flash! Now try the last puzzle and see how quickly you can solve this difficult puzzle that took so much time before.

1. Arrange the odd digits 89-105 in the squares to form a magic square. Use the formula above to help you. Remember where to place the middle number.

Bonus: Two mothers and two daughters divide thirty-one dollar bills evenly among them. How much did each person get?

Name ___________________
I See Spots

Use the illustration found below to answer each question on this page and the following page.

1. How many dots in the large triangle?

2. How many dots in the small triangle?

3. How many dots in the small circle?

4. How many dots in the large square?

5. How many dots are common in both circles?

6. How many dots are common in both triangles?

7. How many dots are common in both squares?

8. How many dots are common in the three large shapes?

Name ____________________________
I See Spots (cont'd.)

9. How many dots are in the large square but not in the large triangle or large circle?

10. How many dots are common to the large shapes?

11. How many dots are in the small circle but not in the large square?

12. How many dots are common to the large circle and either of the triangles?

13. How many dots are found in only one shape? For example, dots in the square but not in any other shape?

14. How many dots are in common with the large square and either of the circles?

15. How many dots are in the large square but not in the large triangle?

16. How many dots are in the small triangle but not in the small square?

17. How many dots are common to three shapes at the same time?

Bonus: Create your own dot puzzle and write a list of questions for your puzzle.