Grade Level: **Third** Weeks **2.5** Unit: **3-Flips, Turns and Area** **November**

PPS Daily Math Plans

Day 01

Calendar

Update All
Discuss: Coin Counter, Clock, Comp & Con
Focus on the least amount of coins to use for Coin Counter.

Lessons

Flips, Turns, and Area
Investigation 1, Session 1,p. 4-7
• Recognizing congruent shapes
• Recognize flips, turns and slides (make a wall chart with these words in the room)Be sure to debrief area of 10 x 12 rectangle (p.6)

10 Minute Math

Homework

Support Material

Teacher Note p. 8 What's an Omino
Dialogue p.9 How Many Squares?
Teacher Note p. 9 Managing computer

Notes:
Introduce concept of congruent, see note page 5
Work in pairs

Day 02

Calendar

Update All
Discuss: Calendar, Depositor, Comp & Con, Measurement
Do we just put up one foot today, or do we add another yard as well?

Lessons

Investigation 1, Session 2 (10-16)
• Spatial visualization
• Using flips, turns, and slides to "fit" shapes to cover area
Introduce Choice time:1. Cover up the 10 x12 2. Tumbling Tetrominoes on computer
3. Tumbling Tetrominoes on paper

10 Minute Math

How fast can you do these:
9 + 7 = 9 + 5 =
19 + 7 = 29 + 6 =
99 + 8 = 199 + 25 =

Homework

Student Sheet # 1 (Finish cutting out tetrominoes) and cover a 10 x 12.
Student Sheet 4

Support Material

Teacher Note p. 17-21
Directions for Tumbling Tetrominoes
Model paper version (p. 14)

Notes:
Provide 10 x12 paper for cutting out paper tetrominoes.

Day 03

Calendar

Update All
Discuss: Counting Tape
How many even numbers have appeared on the Counting Tape as of today?

Lessons

Investigation 1, Session 3
Repeat session 2 rotating pairs of students through the three stations.
If you don't have computers, use paper or crayons to play game
Discuss "perfect fit" p 12-13

10 Minute Math

Practice with a partner:
16 - 9 = 14 - 9 =
18 - 9 = 13 - 9 =
26 - 9 = 38 -9 =

Homework

Student Sheet # 5.

Support Material

Teacher Note p. 22: Providing Appropriate Levels of Challenge. This allows differentiation of curriculum.

Notes:
You may need an additional day for all students to complete three stations and discuss.

Day 04

Calendar

Update All
Discuss: Depositor, Measurement
With our Measurement, when will our next yard go up? Let's practice counting by 3's until 30.

Lessons

Investigation 1, Session 3
Repeat if everyone has not had turn on computer or variations. (p.22)
Try different size rectangles and different shapes. Which cover (tesselate) and which don't?
Introduce concept of perimeter. What is perimeter of 10 x 12? How did you figure it out?

10 Minute Math

Find a fast way to remember:
13 - 8 = 14 - 8 =
15 - 8 = 16 - 8 =
17 - 8 = 27 - 8 =

Homework

Student Sheets A and B

Support Material

Notes:
Catch-up day: try the star and super star level (p.22)

Day 05

Calendar

Update All
Discuss: Calendar, Comp & Con
Talk about the shapes on the calendar - where do students see these shapes in daily life?

Lessons

Investigation 1, Session 4 p. 23-25
• Finding rectangles with equivalent areas
• Find areas of different rectangles
What scores are possible in Tumbling Tetrominoes and which aren't?(Can you get 119? Why?)
Introduce "perimeter" as well as area

10 Minute Math

Chorally answer these:
2 x 4 = 2 x 6 =
2 x 3 = 9 x 2 =
5 x 2 = 2 x 7 =

Homework

Extend Your Thinking p. 62
and/or Send home 10 x 12 sheets.What other size rectangle with

Support Material

Dialogue Box p. 26
Changing the Rectangle's Shape

Notes:

Grade Level: **Third** Weeks **2.5** Unit: **3-Flips, Turns and Area** **November**

PPS Daily Math Plans

Day 06

Calendar

Update All
Discuss: Counting Tape, Depositor, Measurement
On our Measurement Tape, how long is our distance in feet? How many yards is that?

Lessons

Investigation 1, Session 5 p. 27-30
• Recognizing congruent shapes
• Visualizing how shapes fit together
Students fit tetrominoes on 5 x 24 and look for new patterns
Assessment: Student Sheet # 6

10 Minute Math

Respond chorally:
3 x 4 = 3 x 5 =
3 x 6 = 7 x 3 =
8 x 3 = 9 x 3 =

Homework

List all the rectangles of area 120. (whole number)
Which one has the largest perimeter?

Support Material

Dialogue p. 30 & 31
5 x 24 Rectangle
T Never Fits

Notes:

Ask students who can "see" where the shapes belong without trial and error to share their thinking.

Day 07

Calendar

Update All
Discuss: Comp & Con, Depositor, Coin Counter, Clock
Try some shopping problems, making change from 50¢. Use shopping cards with Coin Counter Record B.

Lessons

Investigation 2, Session 1 p. 34-36
• Understanding area as covering space with units
Covering the tetrominoes with unit squares, unit triangles and 1/2 unit triangles
What is the area of the large triangle? How do you know it is one unit if the square is one unit?

10 Minute Math

Test a partner:
6 ÷ 3 = 18 ÷ 3 =
9 ÷ 3 = 21 ÷ 3 =
12 ÷ 3 = 24 ÷ 3 =

Homework

Student Sheet # 8
Extra credit
Send home geoboard sheets with

Support Material

Teacher Note p. 37 *** Area of Triangles
Dialogue p. 38

Notes:

Day 08

Calendar

Update All
Discuss: Calendar, Depositor, Coin Counter
Continue working with Doubles and Doubles Plus One, Fast 10's, and Fast 9's using flash cards.

Lessons

Investigation 2, Session 2 p. 39-45
• Recognizing congruent shapes
• Counting area using unit squares
1. Play variations of tumbling tetrominoes 2. Find shapes with areas of 4, that are not congruent
Create posters. Discuss page 43.

10 Minute Math

Practice 3's and 5's facts. If known, practice as division facts

Homework

Student Sheets # 9 and # 10

Support Material

Notes:

The posters will take several days to complete. Allow sufficient time.

Day 09

Calendar

Update All
Discuss: Calendar, Depositor, Coin Counter

Lessons

Catch-up day

10 Minute Math

Practice 4's facts

Homework

Support Material

Notes:

The posters will take several days to complete. Allow sufficient time.

Day 10

Calendar

Update All
Discuss: Counting Tape, Coin Counter
See Discussion in book for Coin Counter for 50th Day of School - students determine all the ways to make 50¢.

Lessons

Investigation 2, Session 4
p. 46 – 49
Discuss Student Sheets #9 and #10 (homework) e.g. on #10, how did you find the area of the rectangle?
Complete posters showing shapes with area four. Suggest students organize these shapes systematically.

10 Minute Math

Homework

Student Sheet # 12

Support Material

Teacher Note p. 50-51 for tomorrow.
Assessment of understanding of area.

Notes:

Extension: How many different shapes can be made?
Continue playing Tumbling Tetrominoes with different size boards

PPS Daily Math Plans

Day 11

Calendar
Update All
Discuss Depositor, Clock
On the Clock, if the time were 3 minutes from now, where would the long hand (minute hand) be placed?

Lessons
Investigation 2, Session 5
• Students present posters and describe how shapes are categorized.
• How many different shapes did we find in the class? Find two shapes that are really reflections, not different.
Student Sheet 11 - Use the unit square, the half square, and the unit triangle for area 5,6, and 7.

10 Minute Math
How many nickels in:

15¢	40¢
25¢	60¢
30¢	$1.00

Homework
Practice pages C and D.

Support Material
Dialogue Box p. 52.
Area of my shape is 5

Notes:

Day 13

Calendar
Update All
Discuss: Calendar, Depositor, Clock, Measurement
Discuss the patterns on the calendar.
Make number patterns.

Lessons
Scoring Guide for problem solving
Use elementary language one.
What is the problem about?
How can we solve it?
Explain what & why we did it that way.
Check our answer
Use problem #79 on p-16 (Problem Solver - make a list)

10 Minute Math
Practice with partner:
17-9, 15-7, 13-6, 19-10, 11-6
13-8, 14-8, 16-8, 17-8

Homework
How many different combinations?
ice cream:vanilla, chocolate, peach
sauce: marshmallow, caramel, berry

Support Material

Notes:
Focus on restating the problem in own words and step 1