Rising Third Grade

2018 MATH SUMMER PACKET

STUART
COUNTRY DAY SCHOOL OF THE SACRED HEART

Dear Parents,

Each student is expected to engage in fun and consistent math practice throughout the summer to avoid the summer slide. Brains need rest too, however, so don't forget to have fun!

Summer Work Expectations and Guidelines:

1. **Practice the addition and subtraction facts consistently. You are expected to know them all entering 3rd grade.**
2. Spend time on DreamBox each week.
3. Print out this packet. If you don't have access to a printer, you may pick up a hard copy at school. The student work portion is due the first day of school to next year's teacher!

- The packet includes problems from different areas of the 2nd grade curriculum. It is expected that the students are entering into 3rd grade having mastered these areas. Particular areas of strength and growth are noted in your child's report card.
- If your child completes the packet in June and doesn't solve any math problems for the rest of the summer, she will lose some very important concepts. This packet should be spread out, repeated or tweaked along the way to provide consistent practice.
- The pencil and paper portion includes some questions that are from the next grade level. Do not worry if your child has difficultly, or hasn't mastered these extensions.

Suggested Schedule:

Weekly: DreamBox and a page from this packet. The first page is open-ended problems and should be spread throughout the summer, with the suggestion of 1 – 2 problems/week.

Addition and subtraction facts to 20 should be practiced consistently!

Parents: You have homework too!

Recommended Books and Resources:

Jo Boaler's Parent Resources: Jo Boaler's Youcubed.org from Stanford University

The Opposite of Spoiled by Ron Leiber

Family Activities:

- Involve your child in your shopping experiences. While we love to use our debit and credit cards, find time to allow your child to pay with cash. Other activities include estimating the total cost of the purchase, deciding between items based on price or wants and calculating the change.
- Board games are a wonderful way for your child to learn turn-taking, game strategies, money, counting and perseverance. These are widely overlooked but critical to developing a strong mathematician.
    - Good games: Shut the Box, Blokus, Monopoly, Sorry, Mancala, Chess
- Measure, cook and bake with your child!
- Involve your child in calculating distance traveled, time spent traveling and make the "Are we there yet?" into a math problem!

Recommended Websites and Apps

Free websites:

Name	Website
Greg Tang Math	gregtangmath.com
Calculation Nation	http://calculationnation.nctm.org/
Illuminations	http://illuminations.nctm.org/
Mathbreakers	https://mathbreakers.com
Addition & Subtraction Math Magician	http://www.oswego.org/ocsd-web/games/Mathmagician/mathsadd.html http://www.oswego.org/ocsd-web/games/Mathmagician/mathssub.html
Fact Monster (flashcards)	http://www.factmonster.com/math/flashcards.html

Apps:

- Match 10 **-** Combinations of 10
- Name that Number **-** Also known as Target, using addition & subtraction to reach a target number
- Kakooma - addition challenges in puzzle format
- King of Math - Various types of math problems
- Thinking Blocks – Model and Solve Word Problems – Addition and Subtraction
- Hungry Fish – addition and subtraction
- Match – fluency
- Bounch
- Gate

Resources for word problems and math facts:

Create and Print Worksheets: www.mathfactcafe.com or math-aids.com
Word Problem Generator: gregtangmath.com

Name: _____

Keep track on the logs below to show the time you spent on DreamBox, completed pages from this packet, and anything else educational you did this summer. This page is due the first day of school with the rest of the packet.

Homework Log for June:

Date/Week	Activity

Homework Log for July:

Date/Week	Activity

Homework Log for August:

Date/Week	Activity

Open Response Problems

Pick 1 - 2 problems per week. Solve on a separate sheet of paper.

a. The difference between two numbers is 17. What might the two numbers be? Show as many different solutions as you can.	b. Ben now has 112 marbles. How many marbles did he once have and what happened to them? Show as many different solutions as you can.
c. Tom had a large candy bar. He cut it into pieces so that he could share it equally with his best friend. Show different ways Tom might have cut the candy bar. Label each part as a fraction. What about if he shared it with 2 friends? Three friends?	d. Choose one of these numbers: 2, 3, 5, or 6. Double the number you chose and record the number sentence. Keep doubling the total until you reach a sum that is greater than 100. How far away is 100 from your final number? Try it with another number. What patterns do you notice?
e. Work with a partner. Turn over 3 numeral cards each and make a 3-digit number. Record and find the sum and difference of your numbers. Repeat.	f. Tom put 12 (or 18, 24, 36…) counters into equal piles. How many counters were in each pile? Show as many different solutions as you can.
g. Turn over three numeral cards to make a 3-digit number. Round the number you make to the nearest 10. Repeat 10 times. Explain your strategy for rounding numbers to the nearest 10.	h. Find 3 objects at home that are shorter than your ruler. Order your objects from shortest to longest. Measure each object using your ruler. Record your findings.
i. Sam has 30 cents in his pocket. What coins might he have? Show as many different solutions as you can. Repeat with different amounts of money.	j. I bought three items at the toy store and spent exactly $1.00. What might I have bought and how much did each item cost?
k. Put a bunch of different objects in a cup. Sort the objects in your cup. Create a representation to show your data. Your representation must have a title and a key. Write 3 facts about the data in your bar graph or line plot.	l. Draw a clock to show one time that is quarter past the hour, one that is half past the hour and one that is quarter to the hour. For each clock write the time it would be one hour earlier and one hour later. Repeat with one ½ hour earlier and later.
m. Write a story problem to match the equation _____ + 250 = 815.	o. Using all of the digits 4, 5, 6, 7, 8, 9, what numbers can you make using addition and/or subtraction?

Name: _____

Place Value and Base 10

1. Complete the equations below.

75 = _____ tens + _____ ones

_____ hundreds + _____ tens + _____ ones = 209

_____ ones + _____ tens + _____ hundreds = 542

To make **189**, I could use:
_____ hundreds + _____ tens + _____ ones

or _____ tens + _____ ones

2. Write the numbers below in expanded form.

_____ = 158

_____ = 509

_____ = 1,294

3. Write the numbers below in standard form (number form).

300 + 80 + 4 = _____

600 + 10 + 9 = _____

1,000 + 400 + 30 + 6 = _____

1. Draw base 10 blocks below to show the number 251.

2. In the number 461:

The 1 digit represents: _____

The 4 digit represents: _____

The 6 digit represents: _____

3. Which number is in the hundreds place in 563: _____

Which number is in the thousands place in 3,109: _____

4. Compare the numbers below by using >, <, or =

a. 918 _____ 981 **b.** 802 _____ 798 **c.** 1,201 ____ 1,198

5. Adding and subtracting with tens and hundreds:

a. 284 + 10 = _____ **b.** 392 + 10 = _____

c. 275 – 10 = _____ **d.** 671 + 100 = _____

e. 508 – 10 = _____ **f.** 432 – 100 = _____

g. 916 + 100 = _____ **h.** 1,003 – 10 = _____

Place Value and Base 10

1. Complete the equations below.

_____ ones + _____ tens + _____ hundreds = 755

1,295 = _____ thousands + _____ hundreds + _____ tens + _____ ones

2. Write the numbers below in expanded form.

_____ = 912

_____ = 5,492

3. Write the numbers below in standard form (number form).

500 + 10 + 4 = _____

2,000 + 400 + 30 + 6 = _____

4. In the number 582:
The 2-digit represents: _____The 8 digit represents: _____

Which number is in the hundreds place in 365: _____

Which number is in the thousands place in 6,102: _____

5. Adding and subtracting with tens and hundreds:

a. 10 + 762 = _____ **b.** 899 + 10 = _____

c. 313 – 10 = _____ **d.** 767 + 100 = _____

e. 604 – 10 = _____ **f.** 715 – 100 = _____

g. 984 + 100 = _____ **h.** 1,006 – 10 = _____

Addition and Subtraction

52 + 41 =	148 + 291 =	542 + 489 =

86 – 17 =	685 – 232 =	419 – 255 =

2,145 + 1,532 =	724 – 469 =	1,342 – 1,138 =

Addition and Subtraction

238 + 141 =	382 + 291 =	458 + 375 =

64 – 28 =	594 – 375 =	624 – 366 =

Extend:

1,392 + 1,429 =	2,635 – 1,276 =	1,842 – 955 =

Addition and Subtraction

482 + 263 =	711 + 176 =	358 + 265 =

175 – 28 =	471 – 264 =	826 – 243 =

Extend:

1,433 + 2,511 =	811 – 357 =	2,113 – 1,019 =

Developing Flexibility and Efficiency with Addition & Subtraction

Look at the numbers before solving to choose the most efficient strategy. Hint: It may not be the algorithm or using expanded form…think about friendly numbers!

426 + 199 =	362 + 198 =

503 + 177 =	95 + 95 =

99 - 67 =	101 – 75 =

267 - 98 =	1,002 - 998 =

Subtraction Fact Fluency

a. 12 - 6 =	**b.** 11 - 3 =
c. 15 - 7 =	**d.** 12 - 4 =
e. 16 – 9 =	**f.** 11 - 6 =
e. 14 - 7 =	**f.** 17 - 8 =
g. 12 - 9 =	**h.** 14 - 6 =
i. 13 - 5 =	**j.** 14 - 5 =
k. 11 - 8 =	**l.** 13 - 8 =

Solving Story Problems

a. Patti had $225 in her wallet. She went shopping and had $87 left. How much money did she spend shopping?

b. During field day the 1st place winner threw the baseball 116 feet, which was 37 more feet than the 2nd place winner. How far did the 2nd place winner throw the baseball?

c. J'vonae's basketball team won the first four games of the season. The first game they scored 35 points. Every game thereafter, they scored 10 more points than the game before. How many total points did they score in the first 4 games?

d. Alice's class had an estimation jar. There were 265 candies in the jar. She gave some candy to her classmates and then there were 187 candies left. How much candy did she give to her classmates?

Solving Story Problems

a. Carmelo had $215 saved for a new bicycle. The bike cost $350. How much more money does he need to save?

b. Anthony collected shells on the beach to sell. He collected 15 on Monday, 26 on Tuesday, 51 on Wednesday and 14 on Thursday. How many shells did Anthony collect?

c. There was a shopping cart full of tennis balls at the start of the lesson. After the students hit 265 balls, there were 167 balls left. How many balls were in the cart at the beginning of the lesson?

d. There are 251 kids at summer camp. They had 228 popsicles to give out. Are there enough for every child? If not, how many more would they need?

Number Cards (Print and Cut to Play Card Games)

0	1	2
3	4	5
6	7	8
9	10	