# Incoming $4^{\text {th }}$ grade Summer Math Packe $\dagger$ 



Dear rising $4^{\text {th }}$ grade parents,

Please preview this packet in it's entirety, as some activities are meant to be completed at the beginning or end of summer, some of the practice can be solved while on the road. We are hoping to partner with you beginning this summer, to help prevent the traditional summer slide. Your student has worked hard in $3^{\text {rd }}$ grade and just keeping up with the skills that your student has already learned, will set them up to be ready to go at $4^{\text {th }}$ grade.

All problems that you will find are based on $3^{\text {rd }}$ grade mathematics common core standards, but also included are some problems that should stretch your student's thinking by applying some of the skills that they've learned. Come up with your own strategies, keep some notes as to how you reached your solution, show work where appropriate and do your best to explain your answers and strategies. Basic multiplication (thru 12's) and division skills are the building blocks of $4^{\text {th }}$ grade mathematic We suggest practicing this daily if possible, and you'll find that our packet begins just there, and ends with some recommended websites.

If this packet is completed in its entirety and turned in during the first week of school, you're student will be invited to a Doughnut Party ©)

Beginning of Summer Multiplication Data (Record Date completed: $\qquad$ _)

1) Complete the products that you know in the multiplication chart

- Mom or dad, please assist with these. I'm looking for a response rate of about 5 seconds.

2) Shade them with a colored pencil.
3) Look up the rest of the answers
4) Practice as often as you can

## Multiplication $12 \times 12$ Blank Table

| $\mathbf{X}$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |
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| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |

Track you multiplication practice sessions here

| Date | How did you practice <br> (flash cards, web-site name, game - <br> give me the name, etc) | How long did you <br> practice? (anything as <br> long as 5 min count) | Parent initials |
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End of Summer Multiplication Data (Record Date completed: $\qquad$ _)

1) Again, complete the products that you know in the multiplication chart

- Mom or dad, please assist with these. I'm still looking for a response rate of about 5 sec .

2) Shade them with a colored pencil.
3) Look up the rest of the answers

Multiplication $12 \times 12$ Blank Table

| $\mathbf{X}$ | 1 | 2 | 3 | $\mathbf{4}$ | $\mathbf{5}$ | 6 | 7 | $\mathbf{8}$ | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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$\qquad$ life :
(name)

| Your Numbers Go <br> Here | Standard Form <br> (25) | Expanded Form <br> $(20+5)$ | Word Form <br> (Twenty Five) |
| :---: | :---: | :---: | :---: |
| House Number |  |  |  |
| Age |  |  |  |
| Total pages in a <br> book you're reading |  |  |  |
| How many inches <br> tall are you? |  |  |  |
| How much do you <br> weigh? |  |  |  |
| What is your shoe <br> size? |  |  |  |
| What year were you <br> born? |  |  |  |
| Insert another <br> personal \# : <br> Insert another <br> personal \# : |  |  |  |

## I Spy Fractions

What Fractions can you find over the summer - In your room, house, on the road, on the beach, on vacation?? See if you can complete this table.

| I spy with my little <br> eye a(n).... | It's divided into..... | I can draw a model | I can give an <br> equivalent fraction <br> to it's unit fraction |
| :---: | :---: | :---: | :---: |
| Beach Ball | Sixths |  |  |
|  |  |  | $1 / 6=2 / 12$ |

$$
3^{\text {rd }} \text { grade math review }
$$

1) Give me an example of a fact family?
2) What month is represented by the number 6 ?
3) How many weeks are in a year?
4) 

| Divide | 18 | 48 | 12 | 24 | 30 | 42 | 60 | 72 | 36 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| By 6 | 3 |  |  |  |  |  |  |  |  |

5) Make a number line from $65-115$ and skip count by 5 's

6) Draw 6 groups of 3 . Write an equation to represent the model, with solution.
7) Complete the following comparison statements. (hint: < less than, > greater than)
a. $1 / 2$
$3 / 4$
b. $1 / 8$

c. $1 / 3$

8) Order from least to greatest $1 / 6,4 / 6,3 / 6$
9) Order from greatest to least $6 / 9,2 / 9,4 / 9$
10) What time is it?

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
11) Is it $A M$ or $P M$ when you eat breakfast?
12) Is it $A M$ or $P M$ when you go to bed?
13) Label the image below with the measurements of your favorite book. Then find the perimeter of your favorite book? (Remember to include the units in your answer ex: inches, cm).

Perimeter $=$ Length + Length + Width + Width


Perimeter $=$ $\qquad$
14) Complete the patterns:
a. $11,22,33$, $\qquad$ , _ ,
b. $80,72,64$, $\qquad$ , $\qquad$ ,

What operation would you use to solve these problems? + - x or $\div$

1) How many more cookies were sold in the morning than in the afternoon? $\qquad$
2) Diane sold muffins and Mark sold muffins, how many did they sell in all? $\qquad$
3) Ryan has 3 times as many pokemon cards as his brother? $\qquad$
4) Sam and 4 friends have a total of $\$ \$$, how much do they each have? $\qquad$

Write an equation and solve the following problems

1) Kevin has 7 cars that have 4 wheels each, how many wheels do Kevin's cars have altogether?
2) Brandon and his 3 friends, Jacob, Logan and Ethan have 12 jelly beans to share, how many does each boy have? $\qquad$
3) Bella baked 13 pies, but needs to bake 30 for her schools back sale. How many more does she need to bake? $\qquad$
4) Bob has 9 bones, Maya has 3 bones, Chopper has 7 bones and Buster has 5 , how many bones do they have altogether? $\qquad$

Solve these problems, show your work.

1) Sally and her 3 friends want to buy fidget spinners. They cost $\$ 9$ each. Sally has $\$ 12$ and each of her friends has $\$ 5$. Do they have enough together so that each friend can get a new fidget spinner?
2) At Disney World's Animal Kingdom, there are the following wait times shown in minutes. Can you tell me the wait times using hours and minutes? *Actual wait times from Sat $5 / 27$ @ 11:14am

| Attraction | Wait time in minutes | Wait time in hours and minutes |
| :---: | :---: | :---: |
| Avatar Flight of Passage | 295 mins |  |
| Na'vi River Journey | 210 mins |  |
| Expedition Everest | 75 mins |  |

Add the following addends together
658
792
$\begin{array}{r}+823 \\ \hline\end{array}$
465
1, 262
$+425$
$+\underline{2,443}$

Find the differences:
782
925
813
5, 320
-5 23
$-107$
$\begin{array}{r}-720 \\ \hline\end{array}$
$-2,215$

Rounding Practice

| Number | Nearest Ten | Nearest Hundred |
| :---: | :---: | :---: |
| 576 | 580 | 600 |
| 675 |  |  |
| 298 |  |  |
| 895 |  |  |
| 453 |  |  |
| 531 |  |  |
| 1,235 |  |  |
| 691 |  |  |
| 112 |  |  |
| 325 |  |  |

Get outside this summer and just run.
We'll see who improved their sprint time the most this summer.
Instructions:
Use a tape measure and measure out 12 feet (you may need someone to help you)
Ask a partner with a stopwatch to measure your time.
Repeat 12 times, on 12 different days

| Date | Measure your speed in <br> seconds in this format |
| :---: | :---: |
| $6 / 3$ | 8.25 secs |
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What the difference between your best time and your slowest time?

Show your work here.

Can you follow a recipe? With your parent's permission, ask to help out with dinner or desert a few times this summer.

Here's a fun idea: Homemade ice cream.

## What You'll Need:

- $11 / 2$ cups half and half
- 1 tablespoon sugar
- $1 / 4$ teaspoon vanilla
- $1 / 2$ cup rock salt
- 3 cups ice
- 1 gallon-size zip-top bag
- 1 pint-size zip-top bag
- Dish towel


## What You Do:

1. Start by filling the gallon-size zip-top bag with half the ice. Invite your child to sprinkle half the rock salt over the ice and then place the pint-size zip-top bag inside.
2. Now carefully measure and pour the half and half into the small pint-size bag along with the vanilla and sugar. Make sure the top is tightly sealed!
3. Pack the rest of the ice around the cream-filled baggie and then sprinkle with the rest of the rock salt. Zip the top, wrap in the dish towel, and get ready to shake.
4. While your child is shaking away, take a moment to chat about what role the salt plays in the homemade ice cream making experiment. Without the salt, the ice wouldn't dip below 32 F , which isn't cold enough for making the ice cream. The freezing point of salt water is lower than regular water, so adding all that salt is an essential part of making the cold treat!
5. Enlist your youngster to keep track of the time and check the bag after one to two minutes of good shaking. Creamy ice cream should be awaiting inside!
6. Remove the ice cream from the bag of salted ice and enjoy - straight from the bag.

While cooking or baking, look up the following conversions.
1 cup $(\mathrm{c})=\ldots$ Fluid Ounces $(\mathrm{oz})$
$1 \operatorname{Pint}(p t)=$ $\qquad$ Cups (c)

1 pound $(\mathrm{lb})=$ $\qquad$ Ounces (oz)

1 Gallon $(\mathrm{G})=$ $\qquad$ Cups (c)

What did you help bake/cook this summer?
1)
2)
3)

Tally up your summer! (suggestion: hang this on the fridge)

| Activity | Tally <br> (mark throughout <br> the summer) | Final Count at the <br> end of summer | Rank activities from <br> greatest to least at the <br> end of summer |
| :---: | :---: | :---: | :---: |
| Ex: Swimming | HH\|l| | 8 |  |
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Plan or report on a summer event and tell me about the math. For example you can plan abbq, a vacation, build something, paint something. Attach more pages if necessary.

Research and complete a STEAM project of your choice that you find on-line or in a book. Tell me all about it, include a picture if you want. You will be allowed to bring in your project during the first week of school to share with your new $4^{\text {th }}$ grade classmates.

## Bonus Fun:

Sudoko


| 1 | 6 |  |  |  | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | 5 | 2 |  |  |
| 5 |  |  |  | 3 |  |
|  | 4 |  |  |  | 1 |
|  |  | 4 | 1 |  |  |
| 3 |  |  |  | 5 | 4 |



Logic Puzzle

|  | Baseball | Tennis | Basketball | Soccer |
| :---: | :---: | :---: | :---: | :---: |
| Alex |  |  |  |  |
| Jessica |  |  |  |  |
| Ryan |  |  |  |  |
| Sophie |  |  |  |  |

Four friends each have different favorite sports. Use the clues to figure out who likes which sport.

1. Jessica likes neither soccer nor basketball.
2. Ryan used to like basketball and baseball best, but he has changed his mind.
3. Neither of the boys likes soccer best.

Analogies

1) $10: 100:: 50$ : $\qquad$ 2) Car:4 :: Bike: $\qquad$
2) $25: 5:: 16$ : $\qquad$ 4) Paper clip : Inch :: $\qquad$ : Foot (hint: 12 inches $=1$ foot)

Check out as many of these web-sites as you can.
$\ln 4^{\text {th }}$ grade we use:
$\square$ Moby Max (logins may have been suspended for the summer)
$\square$ Khan Academy
$\square$ Brain Pop
$\square$ Think Central/Go Math
$\square \mathrm{IXL}$
$\square$ Sum Dog
$\square$ Cool Math Games
$\square$ Other: $\qquad$
Other: $\qquad$

