

Dear Parents/Guardians,

Beginning next week, your child will be learning about mental math strategies for addition. We will be using a work-at-your-own-pace program called "The Addition Station" that will encourage each child to work to his/her full potential while learning these strategies. Although your child has been working on addition for several years already, it is still crucial to become more efficient. Efficiency with addition facts will be a huge asset to them as they progress through higher grade levels.

In order to help your child experience success with mental math addition strategies, please take the time to practice the strategies with your child each night (or as often as you can). This is very important, as repetition is the key to mastery. Please practice the strategies that your child is currently working on, but also review the strategies that he/she has already learned.

To help you provide support to your child, I am including a package following this letter.

Included is:

- A parent support guide that includes the addition strategies in the order that your child will be learning them. This guide also includes some sample facts to practice for each level. Please use this guide for daily practice of the facts that your child is currently working on. Also, remember to review the strategies that he/she has already mastered. Remember, your child might be learning strategies that you did not learn as a child. Some of them are challenging, but learning them is an important aspect of learning to think flexibly and creatively. Please ask me if you have any questions whatsoever!
- A daily checklist to keep track of at-home practice. This is not for you to fill out - it is for your child. Encourage him/her to fill this out with a goal of practicing the strategies each night. Remember, it only needs to take about 5 minutes!

Thank you for your involvement in your child's education.

Sincerely,

Parent Support Guide

This package outlines the order in which your child will be learning the mental math addition strategies. In this program, your child will move through 16 levels. Each level focuses on a different strategy, beginning with the easiest ones and moving along to the most difficult. Please help your child experience success with addition by practicing the facts and strategies that he/she is currently working on each night. Ask your child to tell you about the strategies and show you how they work. If you have any questions, please feel free to ask me!

Level 1: The "+0" Facts

The rule for this strategy: any number + 0 equals that number

Facts to practice:

$27+0=27$	$712+0=712$	$1242+0=1242$	$3456+0=3456$	$6809+0=6809$
$38+0=38$	$800+0=800$	$2589+0=2589$	$4920+0=4920$	$7231+0=7231$
$147+0=147$	$922+0=922$	$2884+0=2884$	$5010+0=5010$	$8990+0=8990$
$259+0=259$	$998+0=998$	$2999+0=2999$	$5334+0=5334$	$9421+0=9421$

Level 2: The "+1" Facts

The rule for this strategy: any number + 1 is 1 more than that number; we extend this to the 10's, 100's, and 1000's. Example: $3+1 > 30+10 > 300+100 > 3000+1000$

Facts to practice:

$589+1=590$	$70+10=80$	$600+100=700$	$3000+1000=4000$
$1314+1=1315$	$90+10=100$	$800+100=900$	$4000+1000=5000$
$3009+1=3010$	$200+100=300$	$900+100=1000$	$5000+1000=6000$
$4357+1=4358$	$400+100=500$	$1100+100=1200$	$8000+1000=9000$

Level 3: The "+2" Facts

The rule for this strategy: any number + 2 is 2 more than that number; we extend this to the 10's, 100's, and 1000's. Example: $3+2 > 30+20 > 300+200 > 3000+2000$

Facts to practice:

$786+2=788$	$30+20=50$	$100+200=300$	$2000+2000=4000$
$1034+2=1036$	$50+20=70$	$300+200=500$	$4000+2000=6000$
$2489+2=2491$	$60+20=80$	$600+200=800$	$5000+2000=7000$
$4555+2=4557$	$90+20=110$	$900+200=1100$	$7000+2000=9000$

Level 4: The "+3" Facts

The rule for this strategy: any number + 3 is 3 more than that number; we extend this to the 10's, 100's, and 1000's. Example: $4+3 > 40+30 > 400+300 > 4000+3000$

Facts to practice:

$305+3=308$

$9011+3=9014$

$70+30=100$

$400+300=700$

$458+3=461$

$10+30=40$

$90+30=120$

$600+300=900$

$799+3=802$

$30+30=60$

$200+300=500$

$1000+3000=4000$

$1010+3=1013$

$40+30=70$

$400+300=700$

$2000+3000=5000$

Level 5: The "Doubles" Facts

Students should memorize the doubles facts to the best of their abilities. The doubles are extended to the 10's, 100's, and 1000's as well, with sums (answers) up to 9999. Example: $4+4 > 40+40 > 400+400 > 4000+4000$

Facts to practice:

$1+1=2$

$10+10=20$

$70+70=140$

$500+500=1000$

$2+2=4$

$11+11=22$

$80+80=160$

$600+600=1200$

$3+3=6$

$12+12=24$

$90+90=180$

$700+700=1400$

$4+4=8$

$10+10=20$

$100+100=200$

$800+800=1600$

$5+5=10$

$20+20=40$

$110+110=220$

$900+900=1800$

$6+6=12$

$30+30=60$

$120+120=240$

$1000+1000=2000$

$7+7=14$

$40+40=80$

$200+200=400$

$2000+2000=4000$

$8+8=16$

$50+50=100$

$300+300=600$

$3000+3000=6000$

$9+9=18$

$60+60=120$

$400+400=800$

$4000+4000=8000$

Level 6: The "Doubles Plus One" Facts

Students use the doubles to solve the doubles plus ones. For example, for $3+4$, think: " $3+3=6$ and 1 more makes 7." These facts are extended to the 10's, 100's, and 1000's as well, with sums (answers) up to 9999. Example: $4+5 > 40+50 > 400+500 > 4000+5000$

Facts to practice:

$1+2=3$

$10+11=21$

$70+80=150$

$700+800=1500$

$2+3=5$

$11+12=23$

$80+90=170$

$800+900=1700$

$3+4=7$

$12+13=25$

$90+100=190$

$900+1000=1900$

$4+5=9$

$10+20=30$

$100+200=300$

$1000+2000=3000$

$5+6=11$

$20+30=50$

$200+300=500$

$2000+3000=5000$

$6+7=13$

$30+40=70$

$300+400=700$

$3000+4000=7000$

$7+8=15$

$40+50=90$

$400+500=900$

$4000+5000=9000$

$8+9=17$

$50+60=110$

$500+600=1100$

$9+10=19$

$60+70=130$

$600+700=1300$

Level 7: The "Doubles Plus Two" Facts

Students use the doubles to solve the doubles plus twos. For example, for $3+5$, think: " $3+3=6$ and 2 more makes 8." These facts are extended to the 10's, 100's, and 1000's as well, with sums (answers) up to 9999. Example: $3+5 > 30+50 > 300+500 > 3000+5000$

Facts to practice:

$1+3=4$	$10+12=22$	$70+90=160$	$700+900=1600$
$2+4=6$	$11+13=24$	$80+100=180$	$800+1000=1800$
$3+5=8$	$12+14=26$	$90+110=200$	$900+1100=2000$
$4+6=10$	$10+30=40$	$100+300=400$	$1000+3000=4000$
$5+7=12$	$20+40=60$	$200+400=600$	$2000+4000=6000$
$6+8=14$	$30+50=80$	$300+500=800$	$3000+5000=8000$
$7+9=16$	$40+60=100$	$400+600=1000$	
$8+10=18$	$50+70=120$	$500+700=1200$	
$9+11=20$	$60+80=140$	$600+800=1400$	

Level 8: The "Making 10, 100 and 1000" Strategy

Students can use the making 10 facts in order to make 100 and 1000. Example: $2+8 > 20+80 > 200+800$. To practice, ask questions such as, "What could you add to 800 to make 1000?"

Facts to practice:

$1+9=10$	$6+4=10$	$10+90=100$	$60+40=100$	$100+900=1000$	$600+400=1000$
$2+8=10$	$7+3=10$	$20+80=100$	$70+30=100$	$200+800=1000$	$700+300=1000$
$3+7=10$	$8+2=10$	$30+70=100$	$80+20=100$	$300+700=1000$	$800+200=1000$
$4+6=10$	$9+1=10$	$40+60=100$	$90+10=100$	$400+600=1000$	$900+100=1000$
$5+5=10$	$10+0=10$	$50+50=100$	$100+0=100$	$500+500=1000$	$1000+0=1000$

Level 9: The Adding 10's and 100's Strategy

The rule for this strategy: When you add 10 (or a multiple of 10), focus on the tens place. When you add 100 (or a multiple of 100), focus on the hundreds place.

Sample facts to practice:

$28+10=38$	$2450+40=2490$	$1045+700=1745$
$73+40=113$	$3651+20=3671$	$2351+100=2451$
$153+30=183$	$4440+30=4470$	$3000+700=3700$
$286+10=296$	$6312+10=6322$	$4747+200=4947$
$500+10=510$		$5699+100=5799$
$890+20=910$	$246+300=546$	$6145+200=6345$
$1048+50=1098$	$569+100=669$	$7500+400=7900$
$1487+10=1497$	$709+200=909$	$9230+300=9530$

Level 10: The "Plus 7, 8, and 9" Strategy

Students add a 1-digit number to a 2, 3, or 4 digit numbers ending in 7, 8, or 9. To solve these equations, students manipulate numbers in order to form a more manageable equation. For example, in the equation $218+6$, students could take 2 away from the 6 and give it to the 218 to make an even 220. Now students can solve the equation $220+4$, which is much easier.

Sample facts to practice:

$19+8=27$	$108+3=111$	$829+8=837$
$27+6=33$	$239+8=247$	$978+4=982$
$39+5=44$	$249+5=254$	$1239+5=1244$
$48+8=56$	$319+5=324$	$2009+8=2017$
$58+6=64$	$427+6=433$	$3448+6=3454$
$68+4=72$	$509+4=513$	$5018+4=5022$
$77+9=86$	$568+6=574$	$6819+2=6821$
$99+5=104$	$617+5=622$	$7229+5=7234$

Level 11: The "Adding 1000's" Strategy

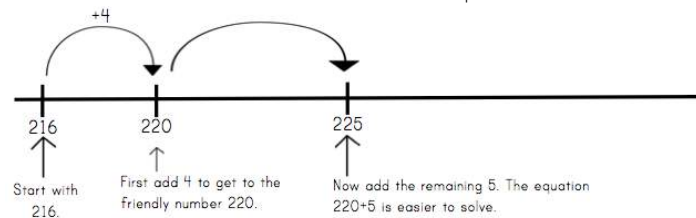
Students use place value understanding to add 1000 and multiples of 1000 to a number with sums to 9999. The student should focus on the thousands place of the number.

Sample facts to practice:

$354+1000=1354$	$1346+7000=8346$	$3000+6000=9000$
$654+7000=7654$	$1999+1000=2999$	$5001+1000=6001$
$719+4000=4719$	$2300+2000=4300$	$6260+2000=8260$
$1002+3000=4002$	$2650+4000=6650$	$8002+1000=9002$

Level 12: The "Using Friendly Numbers" Strategy

The Strategy: Students "bridge" to a friendly number (multiple of 10 or 100) first, and then add the remainder. This makes the equation more manageable. Example: For $216+9$, think:



Sample facts to practice:

$24+8=32$	$267+5=272$	$712+9=721$	$2108+5=2113$
$46+11=57$	$306+12=318$	$814+9=823$	$3455+6=3461$
$79+4=83$	$345+6=351$	$856+6=862$	$4857+11=4868$
$115+7=122$	$466+7=473$	$988+8=996$	$5003+9=5012$
$138+9=147$	$512+11=523$	$1217+5=1222$	$7334+8=7342$
$243+9=252$	$615+7=622$	$1675+6=1681$	$8002+9=8011$

Level 13: The "Left-to-Right Addition" Strategy

The Strategy: Students add from left-to-right, by decomposing the numbers. For example, for $134+215$, add the hundreds first, then the tens, then the ones. Lastly, add those numbers together. Think: " $100+200=300$, $30+10=40$, and $4+5=9 \gg 300+40+9=349$."

Sample facts to practice:

$26+41=67$

$142+133=275$

$2200+1364=3564$

$37+14=51$

$385+113=498$

$1570+1222=2792$

$55+25=80$

$722+119=841$

$4200+1200=5400$

$20+46=66$

$629+120=749$

$6821+1134=7955$

$31+37=68$

$241+528=769$

$1200+2500=3700$

$46+15=61$

$111+444=555$

$5621+1311=6932$

$84+13=97$

$502+495=997$

$7499+1100=8599$

$81+15=96$

$250+644=894$

$4570+2000=6570$

$45+84=129$

$123+457=580$

$1311+1311=2622$

Level 14: The "Breaking Up the Second Number" Strategy

The Strategy: Students break up the second number into more manageable parts, and then add each part to the first addend. Here's an example:

$$142+125 \longrightarrow 142+100 \longrightarrow 242 \longrightarrow 242+25=267$$

100 25

Sample facts to practice:

$35+57=92$

$120+25=145$

$723+76=799$

$634+216=850$

$56+42=98$

$167+121=288$

$412+413=825$

$1423+350=1773$

$74+63=137$

$241+326=567$

$365+160=525$

$3276+1111=4387$

$93+24=117$

$311+208=519$

$202+374=576$

$2190+2005=4195$

Level 15: The "Compensation" Strategy

The Strategy: Students change one of the addends to make the equation more manageable. The sum is then adjusted to compensate for the change. Here's an example:

$$34+49 \longrightarrow 34+50=84 \longrightarrow -1 \longrightarrow 83$$

We can add 1 to the second addend to make this equation easier to solve.

Since we added 1 to the equation, we now need to subtract 1 from the answer to COMPENSATE for the adjustment.

Sample facts to practice:

$32+38=70$

$240+141=381$

$1213+211=1424$

$41+72=113$

$302+39=341$

$2480+402=2882$

$64+47=111$

$456+51=507$

$2500+313=2813$

$22+62=84$

$311+148=459$

$3609+1204=4813$

$131+48=179$

$250+252=502$

$4600+234=4834$

Level 16: The "Finding Compatible Numbers" Strategy

The Strategy: In a 3-addend equation, students add the compatible numbers first. Here's an example:

$$16+25+5 \longrightarrow 25+5=30 \longrightarrow 30+16 \longrightarrow 46$$

It makes sense to add the 25 and 5 first, since that makes the friendly number 30.

Now we can add the other addend: the "16." The sum is 46.

Sample facts to practice:

$90+13+10=113$

$39+25+75=139$

$10+10+45=65$

$120+33+30=183$

$211+25+15=251$

$225+5+26=256$

$419+240+20=679$

$100+100+123=323$

$34+16+3=53$

$167+56+13=236$

$340+14+6=360$

$712+320+80=1112$

$121+625+19=765$

$589+265+111=965$