Addition Number Talks: Grade 1

Doubles/Near Doubles

		Making Tens	
6 + 6	12 + 12	9 + 1	5 + 5
6 + 7	12 + 13	9 + 3 + 1	5 + 5 +4
7 + 7	15 + 15	9 + 5 + 1	5 + 3 + 5
7 + 8	15 + 16	3 + 7	4 + 6
8 + 8	19 + 18	7 + 5 + 3	4 + 6 +4
8 + 9	19 + 19	3 + 6 +7	6 + 5 + 4

Addition Number Talks: Grade 2

Doubles/Near-Doubles

		Making Tens	
11 + 11	19 + 19	4 + 6 + 8 + 2	5 + 3 + 5 + 4 + 7
12 + 12	20 + 20	9 + 3 + 1 + 7	9 + 5 + 8 + 2 + 1
11 + 12	19 + 18	5 + 6 + 5 + 4	4 + 5 + 6 + 3 + 7
11 + 10	19 + 20	3 + 9 + 7 + 1	3 + 8 + 5 + 5 + 2
16 + 16	15 + 15	2 + 9 + 8 + 1	9 + 1 + 6 + 3 + 4
17 + 17	15 + 17	6 + 4 + 3 + 7	7 + 4 + 3 + 2 + 8
16 + 15	15 + 13	5 + 7 + 3 + 5	2 + 6 + 8 + 3 + 4
16 + 17	15 + 16	2 + 5 + 5 + 8	9 + 3 +1 + 5 + 5

Addition Number Talks: Grades 3-5

Doubles/Near Doubles:

16 + 17	28 + 27	98 + 99	198 + 199
18 + 19	36 + 37	124 + 126	249 + 248
15 + 18	49 +52	126 + 127	298 + 297
15 + 16	25 + 28	124 + 128	398 + 399
19 + 18	38 + 37	148 + 149	498 + 497

Breaking Each Number into Its Place Value:

28 + 11	25 + 35	365 + 247	146 + 277
14 + 35	16 +27	138 + 292	216 + 188
36 + 22	37 + 18	168 + 254	255 + 267
27 + 15	35 + 26	292 + 139	185 + 146
17 + 33	25 + 38	518 + 265	370 + 267

Adding Up in Chunks:

16 + 10	38 + 26	156 + 40	218 + 450
16 + 42	38 + 33	156 + 43	218 + 456
26 + 30	45 + 38	237 + 48	247 + 174
24 + 30	45 + 46	256 + 340	345 + 450
24 + 55	65 + 36	256 + 342	345 + 457

Subtraction

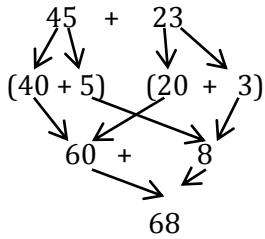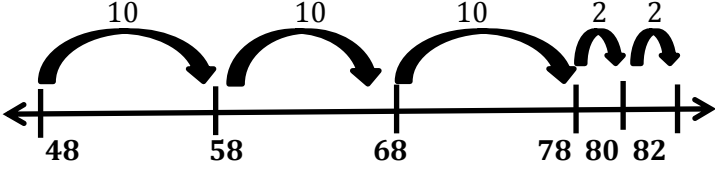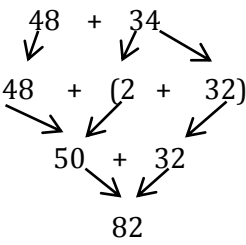| Counting Back	Removal in Parts
Question: 8-3 **Sample Solution:** For counting back students would start at 8 and count backward 3 until they arrived at 5. 8….7, 6, 5	**Question:** 45 - 23 **Sample Solution:** 45 - 23 (decompose 23) (separate 20 from 45) (45 - 20) + 3 25 - 3 22
Constant Difference	**Adding Up to find the Difference**
Question: 57-22 **Sample Solution:** Add 3 to each number and the difference remains the same. Only the numbers become friendlier to work with. 57 - 22 +3 +3 (add 3 to each # keeps difference the same) 60 - 25 60-25=35	**Question:** 82-48 **Sample Solution:** 82-48 48 + (10 + 10 + 10 + 4)= 82 10 10 10 2 2 48 58 68 78 80 82 Student adds up from 48 to 82 to find the difference of 34.
Part Whole Box Model	**Adjusting 1 Number To Create An Easier Number**
Question: 57-22 **Sample Solution:** 	Whole 57
Part 22	Part 35 | Students understand the whole and one part of the whole. Because of this, the student is able to identify the other missing part of the whole.	**Question:** 39 - 24 **Sample Solution:** Adding one to 39 to make it a 40 (39 (+1)) + 24 (40)- 24 =16 16 (-1) = 15 Added 1 to 39 so 1 was removed from the sum
Using a Number Line	
Question: 82-48 **Sample Solution:** 82-48 8 10 10 10 10 34 44 54 64 74 82 Student adds up from 48 to 82 to find the difference	

These strategies should be discovered, explored, and modeled by the students

Addition

Counting All/Counting On	Breaking Up Into Place Value
Question: 8+3 **Sample Solution:** For counting all the students would combine 8 and 3 by counting the set (1 ,2, 3, 4, 5, 6, 7, 8….9, 10, 11) For counting on the student could say "8….9, 10, 11"	**Question:** 45 + 23 **Sample Solution:** 45 + 23 (40 + 5) (20 + 3) 60 + 8 68
Making Tens	**Adding Up In Chunks**
Question: 9+4 **Sample Solution:** Student could say "I decomposed the 4 (3 and 1) and gave one to the 9 to make a ten and added the remaining 3. $$9+4 = 10+3$$	**Question:** 48+34 **Sample Solution:** 48+34 48 + (10 + 10 + 10 + 4) 10 10 10 2 2 48 58 68 78 80 82
Doubles/Near Doubles	**Compensation**
Question: 8+7 (when students use their double facts to solve related problems) **Sample Solution:** $$8+7 = 7+7+1$$ $$8+7 = 8+8-1$$	**Question:** 49 +57 **Sample Solution:** 39 + 57 +1 -1 40 + 56= 96 Compensation: removing one quantity from one addend and adding it to the other addend. Although quantities are manipulated the total sum remains the same.
Landmark/Friendly Numbers	**Adjusting 1 Number To Create An Easier Number**
Question: 48+34 **Sample Solution:** 48 + 34 48 + (2 + 32) 50 + 32 82	**Question:** 39 + 24 **Sample Solution:** Adding one to 39 to make it a 40 (39 (+1)) + 24 (40) + 24 64 (-1) = 63 Added 1 to 39 so 1 was removed from the sum

These strategies should be discovered, explored, and modeled by the students