

Root Causes Math

1. Rely on the textbook as our curriculum.
2. Math Fluency and Number Sense are lacking.
3. Not enough Individualized Instruction

1. Rely on Textbooks as our Curriculum.

Neither Go Math and My Math aren't strong enough to be in our curriculum. It should be a resource, and the standards should be the curriculum. We need to teach to the standards. Both need to be supplemented with other resources. Some of the standards aren't covered at the same rigor as the test. So students don't get enough practice and exposure to the harder problems. Neither of the elementary textbook series is rated very high by ED Reports in terms of alignment to Common Core Standards. Glencoe is rated poorly on Rigor.

Ed Reports Ratings

Focus and Coherence			Alignment	
	Go Math	My Math	Go Math	My Math
K	8 Partially Meets	10 Partially Meets	12 Partially Meets	13 Partially Meets
1st	13 Meets	14 Meets	15 Partially Meets	15 Partially Meets
2nd	14 Meets	13 Meets	15 Partially Meets	15 Partially Meets
3rd	12 Meets	12 Meets	15 Partially Meets	14 Partially Meets
4th	13 Meets	13 Meets	15 Partially Meets	16 Meets
5th	13 Meets	13 Meets	15 Partially Meets	16 Meets

Glencoe		
	Alignment	Rigor
6th	8 Partially Meets	7 Did Not Meet
7th	13 Meets	7 Did Not Meet
8th	13 Meets	8 Did Not Meet

Teachers Input:

- Not enough practice
- Sequencing Issues
- Pacing Issues
- No Spiraling

Solutions:

- Additional Resources- Marci Irwn has provided us with additional resources . Time needs to be spent looking at how we can supplement the textbook.
- Time to look at standards and prioritize standards and skills that need to be taught at each grade level. In addition make sure the standards are covered at the level they need to be.
- Data driven decisions on instruction.
- Take control of when things are taught (sequencing) , add things to spiral, and when to move on.

2. Math Fluency and Number Sense is lacking

Students lack math fluency and number sense. Students aren't able to apply the basic skills to story problems or harder problems. They can do an addition or multiplication problem on their own, but when in story problems with multi steps they can't apply it. They learn the formula before they have full understanding of how to do it. For example, they know the area is length X width, but if given a problem to find how much carpet is needed they wouldn't be able to figure it out. Another example student knew double of 7 was 14, but didn't know 7×2 was 14. No connection made between addition and subtraction. We have some students who become frustrated when they can't pass a time fact practice test. This leads them to not liking Math.

Teacher Input:

- Students aren't developmentally ready for many of the problems.
- Students don't know their Math Facts

Solutions:

- Manipulatives to build understanding
- Having students explain how they got their answer (both verbally and in writing).
- Focus on these skills and group work so the students are communicating.
- Give students problems that are a grade level above or difficult problems.
- More student exploration. Instruction can't all be direct instruction.
- No time tests until students understand the process.

3. Not Enough Individualized Instruction

We don't do enough individualized and Differentiated Instruction. Students' weaknesses aren't getting addressed with just teaching to the whole group.

Solutions:

- Stronger RTI Program - We are in the process of doing this. We have started some things at Lincoln and Jr. High. It has to be for all students and not just the bottom 25%.
- Professional Development on Differentiated Instruction.

Teacher Input on other causes:

Having different curriculums at Washington and Lincoln. We currently have a few grades that used My Math all the way through and no real difference in performance. Go Math was used in K-4 and still had the same issues.

Not enough instruction time for Math. Additional time has been added to Jr. High and Lincoln School.

External Causes

Home Life

Lack of Pre- School

When will we do this?

We have Differentiated Training on the February and March SIP Days. In addition, we are discussing having training this summer, as well as time for teachers to do some planning.

Winter MAP Scores

Math							
	Growth	National Norm Growth	Growth Above or Below National Norm	Score	National Norm	Growth Above or Below National Norm	
K	10	10.5	-0.5	148.9	150.1	-1.2	
1	11.1	10.2	0.9	168	170.2	-2.2	
2	10.1	9.1	1	181.4	184.1	-2.7	
3	8.8	7.7	1.1	192.6	192	0.6	
4	5.5	6.6	-1.1	201.7	206.1	-4.4	
5	3.7	5.6	-1.9	203.1	214.7	-11.6	
6	3.9	4.9	-1	212.4	219.6	-7.2	
7	3.6	3.8	-0.2	218.9	224	-5.1	
8	3	3.2	-0.2	224.6	228.1	-3.5	
Reading							
	Growth	National Norm	Growth Above or Below National Norm	Score	National Norm	Growth Above or Below National Norm	
K	8.6	9.7	-1.1	144.7	146.3	-1.6	
1	10.5	9.9	0.6	163.7	165.8	-2.1	
2	11.1	8.9	2.2	179.7	181.2	-1.5	
3	6.6	7.3	-0.7	189.7	193.9	-4.2	
4	2.8	5.8	-3	198.1	202.5	-4.4	
5	1.4	4.6	-3.2	196.2	209.1	-12.9	
6	3.6	3.6	0	212.3	213.8	-1.5	
7	3.4	2.9	0.5	216.5	217.1	-0.6	
8	2.3	2.5	-0.2	221.3	220.5	0.8	

