

INVESTIGATIONS MATH (TERC) SUMMARY AND PETITION

For more information and to sign the K-12 petition to rid Utah of Investigations Math and higher level programs like it visit: <http://www.oaknorton.com/mathpetition.cfm>

"A TERC teacher doesn't explain, and a TERC teacher doesn't teach! I don't want to be misunderstood: group learning and discovery learning are parts of the tool chest of every accomplished teacher, but it is folly to turn these techniques into an ideology. If we mathematicians had to re-discover mathematics on our own, we would not get very far! And indeed, TERC does not get very far. *By the end of fifth grade, TERC students have fallen roughly two years behind where they should be.*" –Dr. Wilfried Schmid, Harvard University

A FEW FACTS ABOUT INVESTIGATIONS MATH:

- 1) TERC removes teaching the times tables to children.
- 2) No valid math study has ever been performed showing the effectiveness of Investigations Math.
- 3) California and Michigan implemented programs identical to TERC and forced enrollment in college freshmen remedial math classes more than doubled over just a few years.
- 4) "Children tend not to learn what they are not taught." Dr. Ralph Raimi (wrote article comparing TERC to Singapore Math) TERC doesn't teach, it lets children do "discovery learning."
- 5) Hundreds of university leading math professors and Nobel Laureates condemn Investigations Math.
- 6) TERC recommends a text for teachers called "Beyond Arithmetic". In this book it says **traditional elementary math must be discarded** because:
 - Was "developed to meet the needs of the 19th century." BA, Page 2
 - Requires that students "memorize many facts, procedures, definitions, and formulas." BA, Page 2
 - "Focuses on learning a particular set of procedures for addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals." BA, Page 2
 - Results in "overpracticed students." BA, Page 3
 - Ignores the fact that "today's students have an important tool available to them: the calculator." BA, Page 77

Dr. E.D. Hirsche, a brilliant research educator and author of, The Schools We Need and Why We Don't Have Them said: "experience has shown that 'discovery learning' is the least effective method in the teacher's repertory."
"...Saxon's approach is reasonably close to what research is telling us about how students learn--much closer, ...than are the progressive methods advocated by the NCTM (National Council of Teachers of Mathematics)."
"...Saxon Math is the nation's best selling and most thoroughly researched skills-based mathematics program for grades K-12."

Which problem do you want your child doing?

Sample Investigations Math Problem (5th or 6th grade suitable)
Suppose you get 6 cents for each bottle you return for recycling. For each problem show how you found your solution.

- 1) You have collected 149 bottles. How much will you earn?

Sample Singapore Math Problem (5th grade)

Adam bought 8 note pads at \$1.45 each and 10 towels. He gave the cashier \$100 and received \$46 change. Find the cost of a towel.

Parent Comments from Alpine School District:

- I think it is shameful that you (Alpine School District) have repeatedly brushed the concerns of the parents in this district aside. I am aware that there are those children who do learn better in investigational math, but quite honestly you are hurting more students than you are helping. I believe it is irresponsible and would like to know what it will take for the members of the school board to take this matter seriously.
- My children have struggled in Math here in South Carolina because of the Investigations math they received in elementary and junior high in American Fork. My boys are in honors classes and are on the high honor roll here and in Utah. However, we have had to obtain private tutoring to help them in math... My sons' math teachers in South Carolina have indicated they are gifted in math but seem to be lacking a basic understanding of several crucial math skills. We have spent a great deal of money and time helping these boys learn basic skills.
- As a founder of a charter school (Timpanogos Academy), I must thank the ASD for adopting Investigations math. If they hadn't done so, we might have had difficulty recruiting students. As it stands now, we have a lengthy wait list, and the number one reason parents choose our school (according to our internal survey) is "curriculum". I feel sorry for all the "Investigations victims" in the ASD and elsewhere, but at least I can feel secure that students from our school (including my own children) will have that much less competition for entrance into college and good jobs.
- I removed my three children from Rocky Mountain Elem. 3 years ago. After one year of Investigations being a complete failure and the Alpine School District ignoring all needs and concerns of parents, we were lucky to get into a Charter School. My girls now do Saxon math. I am very pleased with this program. They know all of their math facts and each homework set has at least one story problem and the work is on their level. Because of the spiraling review contained in Saxon, all concepts are continually practiced and mastered.
- *I love the Investigations Math program*, it's given me more business than ever. I commend the school district for being willing to try something new, but when it creates more problems than it's solving, that's when they need to take another look at it.—Ruth Sulik, local math tutor
- My sister moved to W. Virginia and was given a book by the teachers there to re-teach her kids basic math skills.
- I don't know for sure where my child will be next year but I know he won't be doing Investigations.
- Teachers need to be experienced guides, not Cheshire cats asking which direction the students want to go as if the path doesn't matter as long as the students finally arrive.
- ...her ACT score was 29. She got a 36 in science, a 33 in reading but a 21 in math! A 21! Math Investigations is THE WORST.
- **From a student:** ... We're both just about 4.0 students, and though we never failed in that class, we were always thoroughly confused...all in all, it made me lose any interest I had in math.