# Improving Math Performance 1 Move at A Time

First of all, Math provides the building blocks and foundation that children will need throughout their lives. If you think that the basics are adding, subtracting, multiplying and dividing - think again! Today, we live in an information age where it's reported that information is doubling at a rate less than every two years. The basic skills need to function in the workplace today are decision making, problem solving, critical thinking and deductive and inductive reasoning along with the ability to make judgements and good estimates. We haven't loved math but we've certainly loved our games. That's when Chess comes into the picture.

Chess is a game that requires problem solving. Math requires problem solving, it makes good sense then to become a good problem solver means you'll do better in math. Chess (and other games) require a mental workout, thinking ahead, planning, being systematic, and determining the outcomes of certain moves. Chess moves can't be memorized, weakness in math often stems from an over emphasis on memory skills instead of thinking skills. Research studies have indicated that students playing chess have improved problem solving skills over the group that have not been involved in the playing of chess. Ollie LaFreniere, the Washington Chess Federation's statewide Coordinator for Scholastic Chess, said in a Seattle Post-Intelligencer interview on May 31, "Chess is the single most powerful educational tool we have at the moment, and many school administrators are realizing that." There are also studies that indicate that many students' social habits improved when playing chess.

The late Faneuil Adams (president of the American Chess Foundation (ACF). believed that chess could enhance learning, especially for the disadvantaged. He with the ACF founded the Chess in Schools Program which initially began in New York's Harlem School district. Early in the program, the focus was on improving math skills for adolescents through improved critical thinking and problem solving skills. Remarkably "test scores improved by 17.3% for students regularly engaged in chess classes, compared with only 4.56% for children participating in other forms of enriched activities."

The ACF reports that chess improves a Child's:

Visual memory

Attention span

Spatial reasoning skills

Capacity to predict and anticipate consequences

Ability to use criteria to drive decision making and evaluate alternatives

Many countries are following suit. In Canada, a growing number of elementary schools have incorporated chess into the regular school curriculum. Looking specifically at Quebec, 10 years ago their math scores were the lowest in the country, Chess became a school subject and now the children in quebec have the highest average math scores in Canada.

**Overcoming Math Phobia through Chess**

Why is it when we ask the majority of people what they think of math or if they're good at math, they immediately show a look of distaste? Think of what happens when a group of people are at a restaurant and the bill comes on one check instead of on separate checks. Usually, you'll hear 'here, you figure it out, I was never any good at math.' I'm sure you've been in this situation yourself at times. However, do they ever say, here you figure it out - I can't read. When we take a look at why people don't like math, we're told it's because it makes them feel stupid, or that they just don't understand it because there are too many rules, formulas and procedures to remember. But, can you think of a situation where there are rules, procedures and such that we enjoy? Games!!! Perhaps if our math instructors treated math like a game, more individuals would excel and would like mathematics. A more favorable attitude in math leads to better performance. Let chess pave the way to better math scores and improved problem solving strategies!