

To be human is to seek to understand. Mathematics, along with science, has made possible dramatic advances in our understanding of the physical universe.

To be human is to explore. Throughout history, mathematics has been essential for exploration, from navigating by the stars to travel into space.

To be human is to participate in society. Societies require mathematics to keep records, allocate resources, and make decisions.

To be human is to build, and mathematics is essential for the design and construction of everything from tents to temples to skyscrapers.

To be human is to look to the future. Mathematics enables us to analyze what has been, predict what might be, and evaluate our options.

To be human is to play, and mathematics is part of our games and our sports.

To be human is to think, to create, and to communicate. Mathematics provides a vehicle for thinking, a medium for creating, and a language for communicating.

In deed, to be human is to develop mathematics.

Glenn M. Kleiman
Mathematics Across the Curriculum

St. Sebastian School **Mathematics Education Philosophy**

We believe students must become mathematically literate to survive in today's world. Mathematics involves the abilities to analyze a situation, select an appropriate strategy, gather data, interpret results and communicate ideas. The mathematics curriculum should be developmentally appropriate and provide students a variety of mathematical ideas including calculation, procedures, problem solving and number theory, in such a way that children retain their enjoyment of and curiosity about mathematics.

Our Mathematics Curriculum is divided into areas:

- *Number Operations & Relationships*
- *Probability & Statistics*
- *Geometry*
- *Measurement*
- *Algebraic Relationships*

Mathematics Education Goals

* Students will develop positive attitudes about the role of mathematics in their lives including:

- Appreciate the value of mathematics
- Relate mathematics to daily living
- Acquire and assess new knowledge over the course of their lives
- Develop a life-long interest in and curiosity about mathematics

* Students will develop a knowledge base to use in life-long mathematical experiences including:

- Know and apply a variety of problem solving strategies
- Know the language of mathematics
- Know how to apply mathematical content to some purposeful activity
- Know the appropriate use of technology

* Students will develop mathematical skills and strategies including:

- Use technology to facilitate problem solving tasks and critical thinking
- Select appropriate problem solving strategies
- Apply mathematics to real life situations
- Value and nurture teamwork, cooperation and collaboration skills
- Communicate mathematics effectively through oral, written and expressive form
- Use a variety of techniques to reflect students' development of mathematics literacy