



## Program of Studies Overview

– Eighth Grade –



### Mathematics

*SJP2 Catholic School offers two course options for 8th grade students:*

- 1. Integrated Math 1 Course (Standards appropriate for mathematical advanced and developmentally-ready 7<sup>th</sup> grade students and on-grade level 8<sup>th</sup> grade students)**
  - The learner will solve and apply linear equations and inequalities.
  - The learner will use functions to model linear data.
  - The learner will interpret linear functions using their key features.
  - The learner will solve and apply systems of equations and inequalities.
  - The learner will apply exponent properties, solve and apply exponential equations, and identify key features of exponential functions.
  - The learner will represent, interpret, and compare data.
  - The learner will solve and apply quadratic equations and identify key features of quadratic functions.
- 2. Integrated Math 2 Course (Standards appropriate for advanced and developmentally-ready 8th grade students who have completed Integrated Math I (or its equivalent))**
  - The learner will solve quadratic equations and identify key features of quadratic functions.
  - The learner will solve radical equations and identify key features of square root and cube root functions.
  - The learner will solve inverse functions and identify key features of inverse variation functions
  - The learner will explore transformations of generic parent functions.
  - The learner will use geometry to perform transformations in a plane.
  - The learner will use geometric and algebraic properties to solve problems and write proofs.
  - The learner will apply right triangle trigonometry to solve problems.
  - The learner will apply the principles of probability to real-world events.



### Science

*Eighth grade Science students complete the middle school science curriculum by studying:*

- Scientific method, math skills and equipment used in science labs
- Viruses, bacteria, fungi and molds
- Matter
- Physical and chemical properties and change
- Atoms, compounds and molecules
- Periodic trends and the Periodic table
- Ionic and Covalent Bonding
- Chemical Nomenclature
- 5 types of chemical reactions ( word and chemical formula equations)
- The law of Conservation of Mass (balancing chemical equations)
- Heat and energy transfer



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- Acids and Bases
- Nuclear Chemistry (radioactive isotopes, nuclear reactions, radioactive decay)
- Ecology (Biomes, ecosystems, symbiotic relationships, population ecology, water resources, energy resources, and survival of populations).



### **English Language Arts**

*Eighth Grade ELA students focus on the following curricular areas:*

- Reading (Comprehension, Fluency, Vocabulary)
- Writing (Craft, Grammar, Mechanics)
- Speaking and Listening (Shared Inquiry)
- Language (Grammar and Vocabulary)

In addition, students complete a capstone course, Socratic Seminar, where they read original source materials, learn to engage in sustained rational discourse (dialogue), write a 3-5-page high school level paper, and publicly discuss their paper.



### **Social Studies**

*Eighth grade social studies curriculum focuses on North Carolina and US History with an emphasis on how our Constitution has navigated conflict, compromise and negotiation, utilizing the following skills:*

- Employ Historical Thinking Skills
- Engage in Oral History Project
- Utilize Inquiry Based Learning
- Analyze historical events from a variety of perspectives to understand complexity of issues
- Incorporate Catholic Social Teaching
- Analyze and create historical maps, charts and diagrams



### **Religion**

*Eighth Grade Religion program focuses on man's identity as a moral, loving and communal person made in God's image.*

- Engage fully in Sacraments, Liturgy and Worship by assisting the Sacristan
- Examine Christian anthropology and moral development
- Explore the life of our Patron Saint through a book study
- Spearhead Living Rosary and Living Stations of the Cross
- Reflect upon John Paul II's teachings on Theology of the Body
- Investigate the history of the Church



### **Foreign Language**

*Eighth Grade Spanish students focus on the following curricular areas:*

- Listening, speaking, reading, writing and cultural awareness.
- Grammar and sentence structure understood and used contextually.
- Create skits to simulate a real life situation: ordering at a restaurant, at the market and at a store.
- Giving and receiving directions to places.
- Reading comprehension: short biographical passages.



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- Learn about and discuss historical and current events in Spanish speaking countries and how they relate to current events in the US.
- Hispanic writers and artist research group project.
- Review The sign of the Cross, and The Our Father, Hail Mary, Glory Be and Act of Contrition.



#### **Visual Arts**

Pre-kindergarten through eighth grade students learn to have the confidence to see themselves as artists as they explore a variety of media to produce art. St. John Paul II's visual arts program provides students an opportunity to learn about various artists, art movements, cultures, and artwork throughout the world and throughout history. Students develop higher-level thinking as they discuss, critique, form ideas, and make connections through the study of art.



#### **Music**

At SJPII, pre-k through 8th grade students are provided with opportunities to appreciate music while using it to deepen and enrich their spiritual lives. Students are able to discover their God-given talents through listening, singing, performing, discussing, composing, and evaluating music in local, regional, and global contexts. With their deeper understanding of music and its role in the Catholic religion, students are more prepared to fully participate in Liturgy.



#### **Physical Education**

The Physical Education program follows the NC Diocese of Raleigh Curriculum by integrating the components into sports specific based learning. The large field and activity center are used to facilitate classes. Adjustments and alternative exercises will be provided as necessary. All students will continually strive to improve/master all areas of Locomotor skills at SJPII.



#### **Extracurricular Athletics**

St. John Paul II has a wide variety of athletics which are offered to Middle School Students 6th-8th grade. We are a member of the Southeastern Middle School Conference (SEMSAC), but we also play non-conference games with a variety of other Christian schools. The following are what is offered at our school.

#### **FALL**

- VB (Girls)
- XC (Co-ed)
- Boys Soccer

#### **WINTER**

- B/G Basketball

#### **SPRING**

- Girls Soccer
- Baseball (Boys)
- Golf (co-ed)