

Magnet Program Update

January 9, 2012



Mission of Magnet Schools in D5

- Magnet programs provide quality educational opportunities for all students in an environment that enhances students' educational success and increase the educational choices available to parents and students in our schools.



Goals of D5 Magnet Programs

- **Expand educational choices for students**
- **Set high expectations for all students to improve student achievement**
- **Prepare students for further education and the world of work through the use of theme-based learning**
- **Develop positive school climates with academic emphasis**
- **Provide real-world and hands-on experiences within a specific theme**
- **Promote diversity within our schools**
- **Offer unique opportunities for in-depth experiences and study in specific areas of interest**
- **Maximize use of school facilities**



Current Magnet Programs

- Elementary Magnet Programs
 - Escolares Academy at Harbison West Elementary School
 - Leaphart Engineering Arts Program at Leaphart Elementary School
- Secondary Magnet Programs
 - STEM (Science, Technology, Engineering and Math) at Dutch Fork High School
 - IB (International Baccalaureate Diploma Programme) at Irmo High School



Escolares Academy at Harbison West Elementary School

- The mission of Escolares Academy at Harbison West Elementary School is to provide gifted learners opportunities to grow and develop by engaging in rigorous experiences that encourage exploration of their unique gifts, talents and interests



Characteristics of Escolares Academy



- Accelerated pace of learning
- Enriched curriculum that exceeds state standards
- Opportunities for communication and research
- Integrated technology
- Stimulating, learner-centered environment
- Rigorous and relevant integrated curriculum
- Exploration of abstract concepts
- Self-directed learning opportunities
- In-depth investigations
- Academic, social and emotional growth
- Opportunities to share ideas, express creativity and take intellectual risk



Escolares Academy: Then and Now

- Began in 2008-09 with one second grade class of 20 students
- Expanded in 2009-2010 to include one class of third graders and one class of fourth graders
 - Second Grade: 16 Students
 - Third Grade: 21 Students
 - Fourth Grade: 18 Students
- Expanded in 2010-2011 to include two fifth grade classes
 - Second Grade: 34 students in 2 classes
 - Third Grade: 20 students
 - Fourth Grade: 24 students
 - Fifth Grade: 35 students in 2 classes
- In 2011-2012, there were over 200 applicants from all 12 elementary schools.
- Currently, there are 159 students enrolled in Escolares Academy.
 - Second Grade: 40 students in 2 classes
 - Third Grade: 44 students in 2 classes
 - Fourth Grade: 38 students in 2 classes
 - Fifth Grade: 37 students in 2 classes







leap

Leaphart Engineering Arts Program



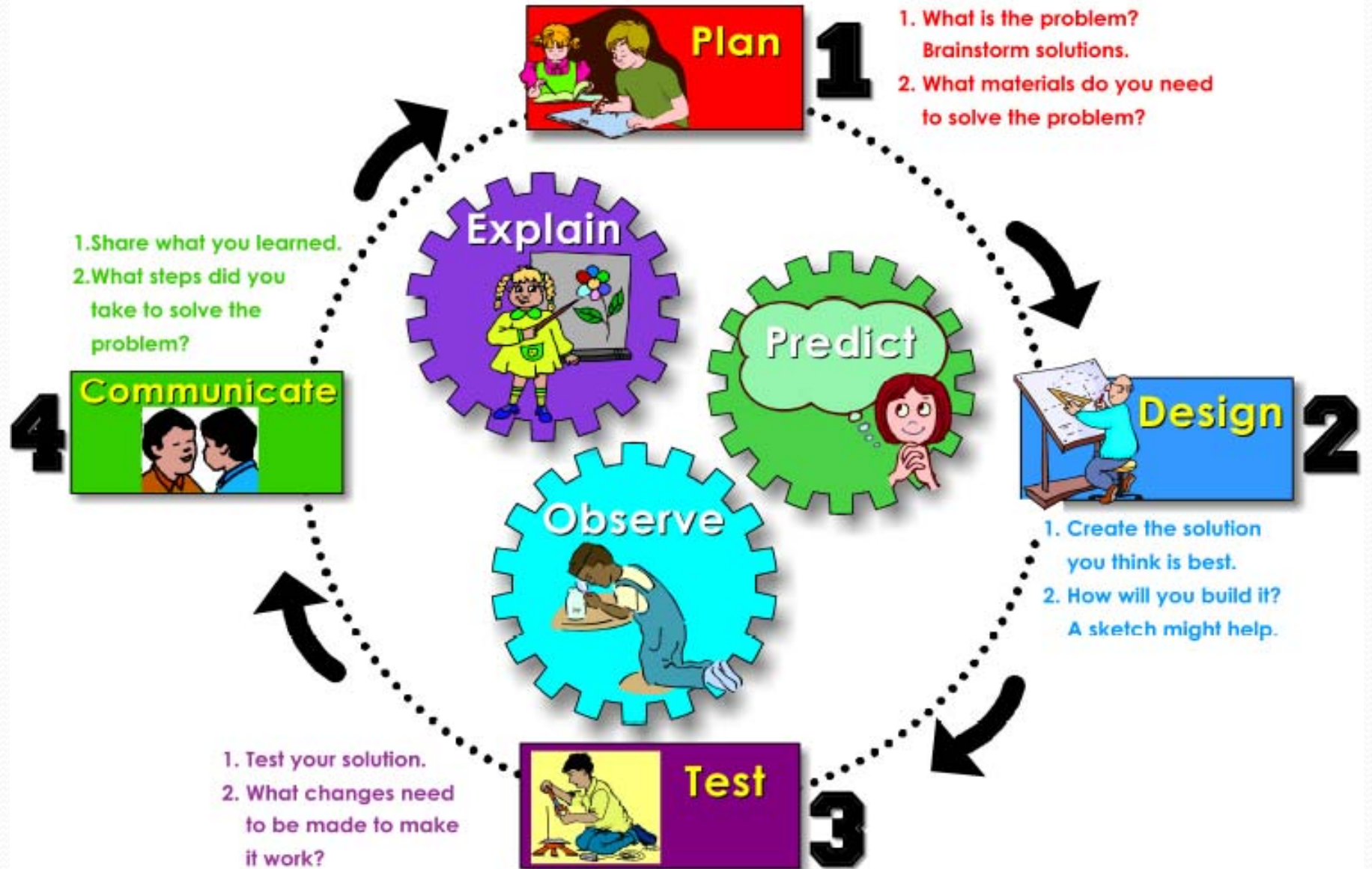
LEAP is a.....



- Whole-school magnet program at Leaphart Elementary School that uses “engineering” as a tool that links science, mathematics, English language arts and social studies throughout the curriculum.
- Inquiry-based model that incorporates a project-based approach.
- School that incorporates an “engineering focus” across all areas, traditional academics as well as the visual and performing arts, by engaging in high-level learning experiences using a design process.

leap Design Process

Leaphart Engineering Arts Program



LEAP promotes...

- Technology and engineering education at the elementary level
- Hands-on, age-appropriate, technology-based activities that enhance, not add to, local, state, or national curriculum
- Promotes children becoming designers, engineers, inventors, and technologists in the classroom daily

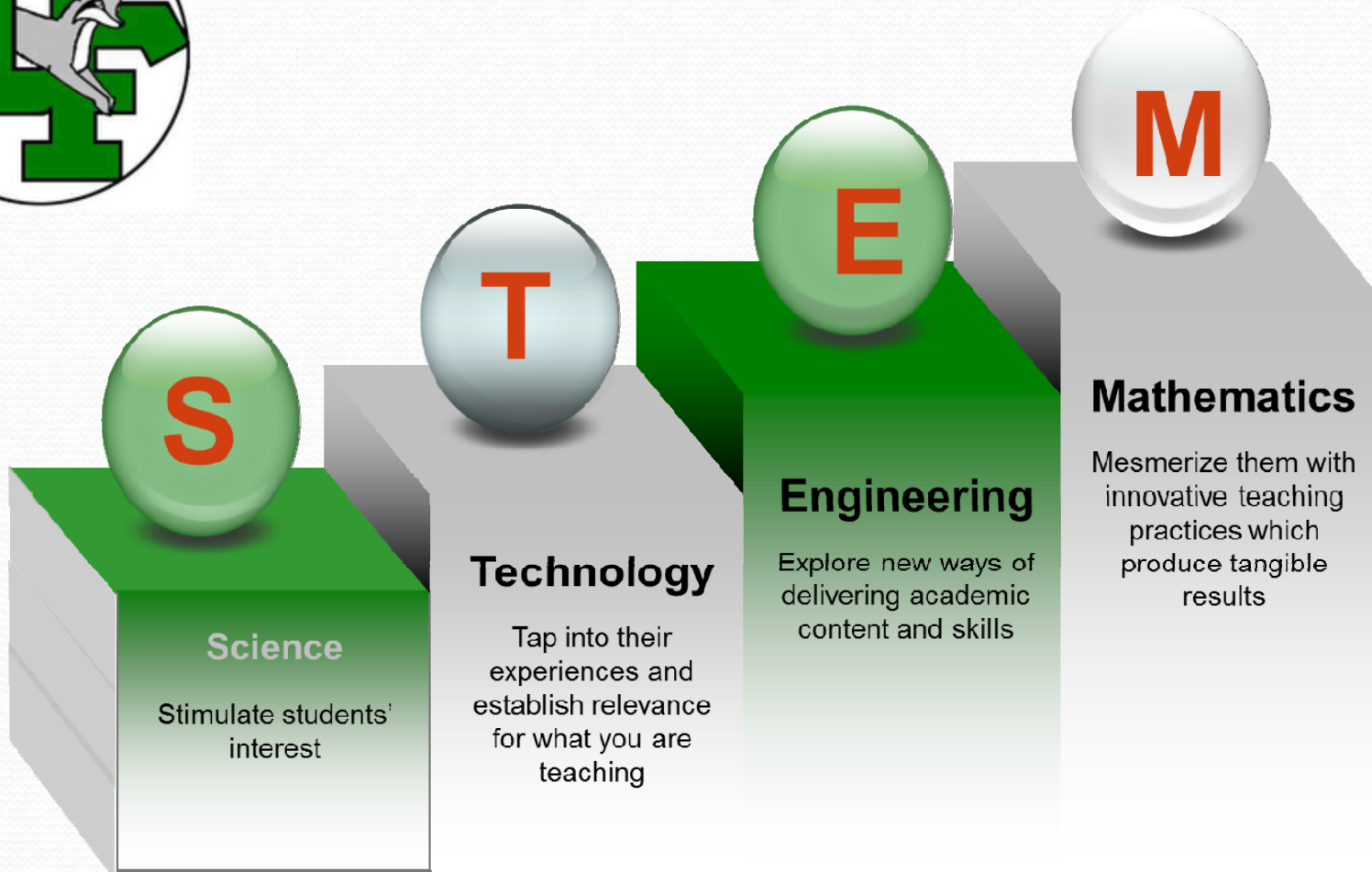


Science, Technology, Engineering, & Mathematics

*An Honors Program at
Dutch Fork High School*



STEM EDUCATION

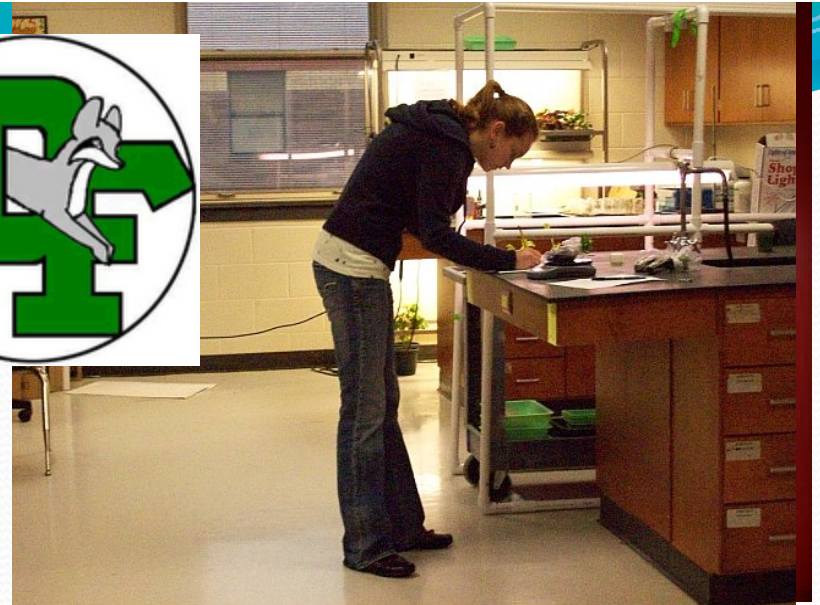


PURPOSE



The purpose of STEM is to:

- accelerate traditional curriculum to allow students to take more courses in STEM.
- promote inquiry style learning across the curriculum.
- provide unique opportunities outside the classroom environment such as independent research, internships, field studies, and competitive academic teams.
- develop scientific literacy
- promote a learning community which extends beyond the school.



NATIONAL NEED



- High school education must adapt to the changing needs of America's economy.
- Increasingly more college graduates are opting out of technical fields like engineering and the sciences, reducing the supply of potential workers for America's emerging needs within these fields.
- STEM education provides an early groundwork for fostering students' interests in these kinds of careers and provides entry-level skills for the work force and for post-secondary education.



- Labs/Experiments
- Hands on learning through Physics and Engineering
- Research and Internships
- Field Studies





International Baccalaureate Program (IB)

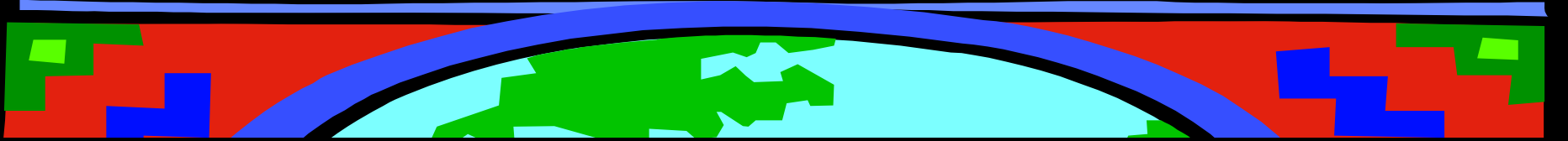
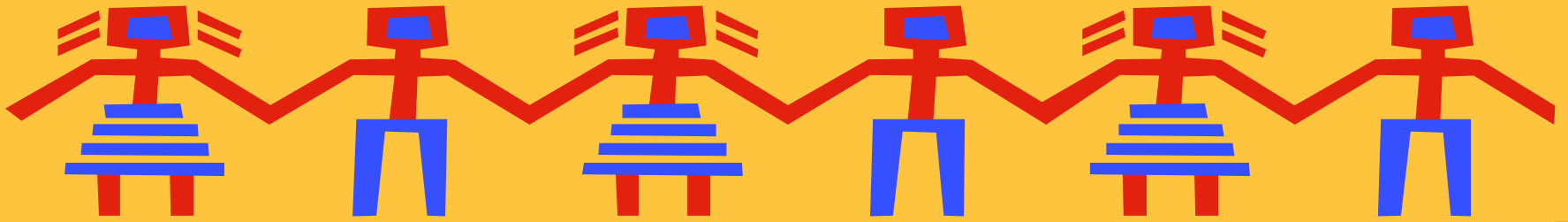


The IB Mission:

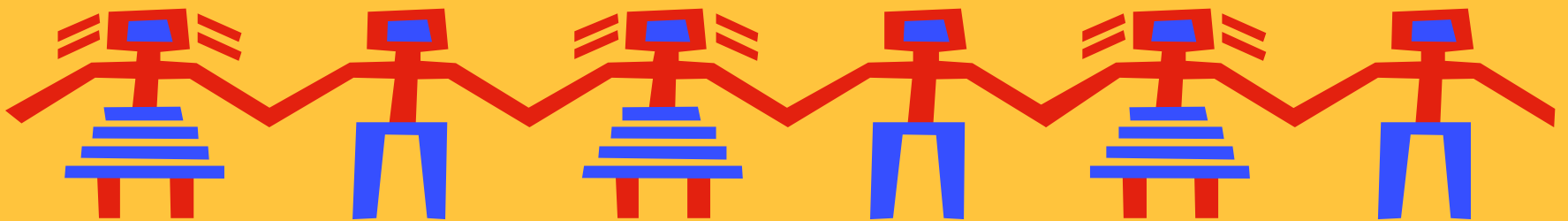
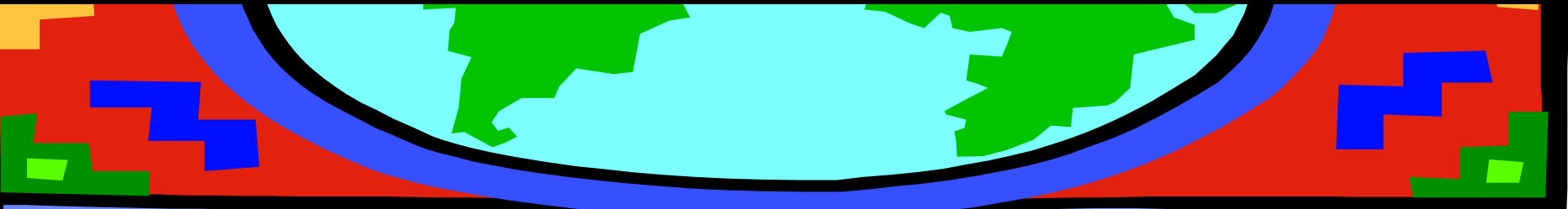
IB aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. (IBO.org)



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International Mindedness



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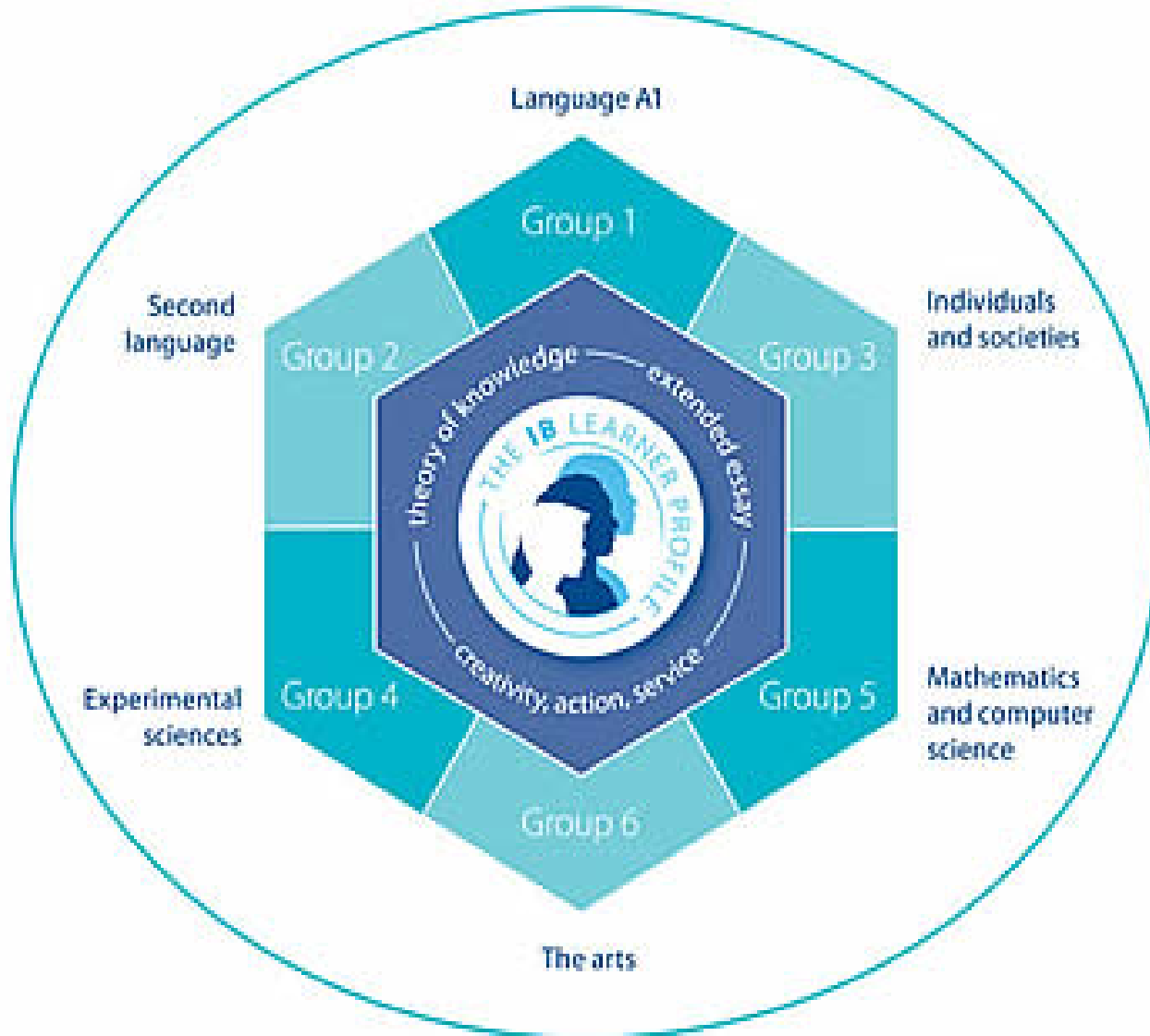
Irmo High: An IB World School



- Since 2005
- Total of 230 IB Students
- Over 80% full Diploma Candidates
- Program has increased enrollment by 25% annually since 2010



The IB Hexagon:





Our IB Students are University Ready:

Inquirers
Knowledgeable
Critical Thinkers
Communicators
Risk-takers



Principled
Caring
Open-minded
Well-balanced
Reflective



University Acceptance Rates

University	Average Rate	IB Rate
NYU	29%	76%
UC Berkeley	25%	60%
Penn	22%	58%
Johns Hopkins	33%	83%
Duke	26%	50%
Cornell	27%	70%
MIT	17%	42%
Dartmouth	23%	60%