

Oak Park and River Forest High School Science Offerings for Incoming Freshmen

The following courses are offered to incoming freshmen students. The information on this sheet will help students to select a course that complements their current academic ability, maturity, motivation and interest thus providing their teachers with the best opportunity to provide a challenging and supportive classroom environment.

	Biology E <i>(Enriched)</i>	Biology	Biology A <i>(Honors)</i>	Models of Physics <i>(Honors Option Available)</i>
Content Covered and Skills Developed	<p>The units of study in our Biology courses will explore content from the following areas:</p> <ul style="list-style-type: none"> -Molecular, Cellular, and Systemic Biology -Energy in Organisms and Ecosystems -Inheritance and Variation of Traits -Environmental Science -Evolution <p>With focus on the following scientific practices:</p> <ul style="list-style-type: none"> -Ask Questions and Define Problems -Develop and use Models -Plan and Carry out Investigations -Analyze and Interpret Data -Using Mathematics and computational thinking -Constructing explanations -Engaging in argument from evidence -Obtaining, evaluating, and communicating information -Academic Study and Organizational Skills 		<p>-The same topics and skills will be addressed as in our biology column but in greater width and depth.</p>	<p>-This course utilizes Physics content as the context for thorough development of the scientific practices listed in our Biology column.</p> <p>Major concepts include:</p> <ul style="list-style-type: none"> -Velocity -Acceleration -Newton's Laws -Energy -Momentum -Electricity -Magnetism -Waves
Instructional Approach	<p><u>Traditional:</u> Hands on work such as labs and activities are utilized to reinforce concepts learned through teacher presentations and textbook readings.</p>			<p><u>Constructivist:</u> A large scale lab begins each instructional unit and helps students independently develop a major conceptual model. Understanding of conceptual model is reinforced using Socratic discussions, lab reports, and application problems.</p> <p style="text-align: right;"><i>modelinginstruction.org</i></p>
Expectations for Student Behaviors	<ul style="list-style-type: none"> -Willingness to follow teacher instructions and take responsibility for learning. -Commitment to completing homework and class assignments. -Maturity to remain attentive during teacher lectures and focused during class activities. -Regular class attendance and commitment to timely make up of hands on lab assignments and/or classwork when absent. -Perseverance when faced with challenging content. 			

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	Biology E (Enriched)	Biology	Biology A (Honors)	Models of Physics (Honors Option Available)
Honors Credit Available	No		Yes, students who earn an A or B on their course work will receive honors credit.	Yes, this course will follow an earned Honors credit methodology. All students will complete an extended research project as part of the course curriculum. Students earning a grade of A or B on this project and the rest of their course work will earn honors credit for the course.
Homework	-Students frequently have 10-30 minutes of daily homework outside of class to reinforce material learned in class.		-Students will have 20-40 minutes of daily homework outside of class to reinforce material learned in class.	-Students frequently have 10-30 minutes of daily homework outside of class to reinforce material learned in class.
Readiness Gauge Used for Recommendation	Students entering 9th grade below grade level in reading, writing, and math as determined by standardized test scores.	Students entering 9th grade at grade level in reading, writing, and math as determined by standardized test scores.	Students entering 9th grade above grade level in reading, writing, and math as determined by standardized test scores.	Students entering 9th grade at or above grade level in reading, writing, and math as determined by standardized test scores.
Level of Support for Students	Teachers will intentionally incorporate strategies that help students pull meaning from readings, master scientific skills, and perform the academic habits necessary for success in our Science curriculum.	Age/Developmentally appropriate support will be offered for technical reading, writing, academic study skills, organization, and applied math to help students experience success.		