

## Foundation For Allen Schools Grant Application

### Let's get to know you!

First Name	John
Last Name	Ricken
Preferred name/name that you go by:	John
Email Address	john.ricken@allenisd.org
Best phone number to reach you at:	14693196481
Campus	Allen High School
Grade(s)	10;11
I have co-applicants:	Yes
Please provide your work-related Facebook contact information.	Not Answered
Please provide your work-related Twitter contact information.	@AhsRicken

### Additional Co-Applicants Set Number 1

First Name	Albert
Last Name	Najera
Email	albert.najera@allenisd.org
Campus	Allen High School
Grade:	10;11

### Additional Co-Applicants Set Number 2

First Name	Reagan
Last Name	Vinson
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Campus	Allen High School
Grade:	10;11

### Additional Co-Applicants Set Number 3

First Name	Jessica
Last Name	Jones
Email	jessica.jones@allenisd.org
Campus	Allen High School
Grade:	10;11

### Additional Co-Applicants Set Number 4

First Name	Tara
Last Name	Allgood
Email	tara.allgood@allenisd.org
Campus	Allen High School
Grade:	10;11

### Project Information

Name of Grant	Chemistry Models: Bringing the Unseeable into Sight in IPC
Please select the MAIN curriculum area your grant addresses.	Science / STEAM
Does your grant have a technology component?	No
Does your grant have a need or requirement that will change, alter, or require any maintenance to Allen ISD Properties?	No
Will other campuses be involved/impacted?	No
Will other grades be involved/impacted?	No
How many students will be involved in this grant?	275
Are there any additional funds available for this grant?	No

### Project Information Continued

<p>What is the problem, need or opportunity that this grant will address? Describe the impact of this project on your students.</p>	<p>Students in IPC need more hands-on / real life application of the concepts being taught especially when the concepts are sub-microscopic. By engaging students with models, we are looking to capture their curiosity and lead them to build a conceptual knowledge that will lead into larger more complex topics. It is important for students to learn the concepts before they can understand why they are solving the problems of balancing chemical equations. The focus of the student is operational, trying to find the mathematical definition that will solve the problem. When students learn the major concepts first, each problem encountered there after will have a starting point. Students become expert problem solvers. Atomic models can help IPC students improve their problem solving skills. Students will be able to manipulate atomic models in their hands and see with their eyes what is impossible without expensive high tech equipment. Even after students master chemical formulas and structures, it will still maintain interest because the students feel like they really understand the concepts.</p>
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<p>How will the project or program be implemented? Describe activities and tasks. Who is the target population and in what ways will they benefit?</p>	<p>This project will be implemented during the majority of the first semester of IPC. By beginning with a stronger grasp of molecular structures and how elements bond to form compounds, students can then apply this knowledge to what actually happens with these compounds in chemical reactions. Seeing and manipulating the models through a chemical reaction will reinforce key concepts of balancing equations. The models will also give the students concrete answers to their "why" questions. Integrated Physics and Chemistry is designed for students who need a bridge between biology and chemistry, the class focuses on real world application of physical sciences. Students will be able to apply hands-on learning in many career fields such as forensic science, pyrotechnics or chemical engineering to name a few. This is an on-level science course with a 4.0 GPA scale value.</p>
<p>Provide a brief summary for use on the Foundation's website and social media.</p>	<p>Grasping for subatomic particles. Molecular models help IPC students understand element placement on the periodic table, bonding properties of elements and the process of balancing chemical equations.</p>
<p>Which Allen ISD goals/TEKS does this project support? Please provide 2 examples.</p>	<p>Allen ISD Science Department -Allen ISD cultivates innovation in education that empowers every learner to realize his or her full potential. -We are Curious -We Like Science -Science is Anytime and Anywhere. -We Learn with Others. and -We are Safe IPC TEKS 6.(B) relate chemical properties of substances to the arrangement of their atoms; 6.(D) relate the placement of an element on the Periodic Table to its physical and chemical behavior, including bonding and classification; 7.(B) recognize that chemical changes can occur when substances react to form different substances and that these interactions are largely determined by the valence electrons;</p>
<p>What specific measurements will be used to evaluate the effectiveness of the project?</p>	<p>Test Data and Lab Report Quality from 2021-2022 will be compared to test data from 2022-2023. IPC uses AWARE data to track student learning over time, this allows for focus on which concepts are the most difficult for students to grasp.</p>
<p>What teaching methods will be used to implement this project?</p>	<p>Several teaching methods will be implemented. We will first use the beads in the kit to help students understand the placement of elements of the periodic table leading to element reactivity (Direct teach). After students grasp the idea of reactivity we will provide students with the opportunity to discover possible combinations of element to form various compounds (Exploration learning). We will further use the models to explore how and why chemical equations must balance and what happens in rate limiting reactions (Analysis and Conclusion Writing).</p>
<p>What is the project timeline and the date of implementation?</p>	<p>IPC will begin lessons on the periodic table in mid September and continue using the models through chemical bonding in October and finish with chemical reaction and balancing equations in November and December.</p>
<p>Explain how this idea or project enhances/supports Allen ISD curriculum or existing systems.</p>	<p>By working in small groups and sharing models we directly address the Science Department DNA statements of "We are Curious", "We are Safe" and "We Learn with Others".</p>

## Project Budget

Total Grant Budget Requested:	839.40
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### Project Budget Set Number 1

Item Type	General Supplies
List item to be purchased under item category:	OLD NOBBY Organic Chemistry Model Kit - Molecular Model Student or Teacher Pack with Atoms, Bonds and Instructional Guide (239-Piece Kit)
Unit Cost	27.98
Quantity	30
Total cost of items in this category:	839.40

### NGB

First Name	Last Name	Email	NGB	Record	Letter
Nicole	Jordan	nicole.jordan@allenisd.org	RN233591	Name: Rec235962, Status: Submitted	Click on the 'Edit' button to replace this with your letter.

### NGB Custom Questions and Answers

#### Rec235962

I certify that this would be a good use of funds for our school and this grant supports the district goals and/or our campus improvement plans. **Do NOT include any identifiers, such as: campus name, your name, teacher's name or mascot **	Approve
Please provide comments/feedback for the applicant:	All learners do better learning at a conceptual learner, before venturing into the abstract. Models are an excellent way for students to learn conceptually.

### Almost done!

Not Available	
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