# DESIGN AND TECHNOLOGY ACADEMY

The Design And Technology Academy (DATA) is located on the campus of the newly renovated Theodore Roosevelt High School. Students from across the district, as well as students from outside of the district, may apply for admission and are accepted based on a lottery system. Students will be invited back each year based on academic performance and behavior. Students must pass all DATA elective courses, be on grade level in all core classes, and be approved for return by the DATA Director.

The DATA curriculum is college preparatory and encourages students to take rigorous courses in the academic disciplines in addition to DATA electives. Many students take dual credit and advanced placement courses while in DATA that provide college credit after graduation. Each DATA graduate must complete all NEISD requirements for the recommended graduation plan and will also complete 120 community service hours, a senior design project, and a 120-hour internship and a digital senior portfolio used for college admissions.

DATA's curriculum has been examined by three major Texas universities and has been endorsed as a vertically aligned college preparatory program. The Design And Technology Academy is very proud of our valuable partnerships with Texas A&M University, Texas Tech University and the University of Texas.

In addition to state graduation requirements and rigorous academic expectations, DATA students focus their studies on one of four primary areas:

| | Architecture | Engineering | Visualization | Composite |
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| **DATA students will learn…** | • Understand the design process and the power of visual and mental perception<br>• Fundamental concepts of architectural design<br>• Use of software as a design tool with an emphasis on concepts and computer skills | • Design process<br>• Vector and force analysis<br>• Translational, rotational and relative motion analysis<br>• Resistor, capacitor and inductor circuits analysis | • Drawing and compositional skills<br>• Study the elements and principles of art<br>• Planning and process stages of digital media and design<br>• Presentation graphics and communication skills | • Design process<br>• Presentation graphics and communication skills<br>• Study the elements and principles of the architecture, engineering and visualization strands |
| **DATA students will…** | • Use valuable industry standard software such as SketchUp, 3D Studio Max, AutoCAD & Revit.<br>• Develop projects that focus on a variety of aspects of architecture (interior, exterior, green, etc.) | • Draw free body/mass accelaration diagrams<br>• Write/solve multiple equations for unknown quantities<br>• Use power tools to construct projects<br>• Design and solder electrical circuits for functional projects | • Manipulate digital images<br>• Use valuable industry standard software such as Photoshop, Illustrator, Flash & Dreamweaver<br>• Work in teams to complete various projects | • Work in teams to complete projects<br>• Use valuable industry standard software such as SketchUp, 3DS Max, AutoCAD, Photoshop, Illustrator, Flash & Dreamweaver<br>• Develop multi-faceted projects in all areas |
| **DATA students will create…** | • 2 dimensional working drawings & sketches<br>• Presentation posters, color boards, etc.<br>• 3 dimensional digital & physical models that demonstrate an understanding of textures and lighting<br>• Digital animations | • 3D physical models – structures, vehicles & airplanes<br>• 3D computer model of bridge for structural analysis<br>• DC electrical USB charging device for phones / mp3 players<br>• 3D scale model design | • Drawing projects using a variety of techniques and media<br>• Professional websites<br>• Covers key aspects of video game design<br>• Music compositions to accompany videos, digital animations or video games | • Drawing projects using a variety of techniques and media<br>• 3 dimensional digital models<br>• 3 dimensional physical models – structures<br>• Presentation posters, color boards, etc.<br>• Digital animations |

**For more information on the Design And Technology Academy contact:**
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