

WELCOME TO GATE!

The Gifted and Talented program at Rhodes School for the Performing Arts is designed for gifted and talented (G/T) students in grades K-8 who excel in general ability in combination with having exceptional creative/productive thinking and/or leadership ability.



■ GT Science Fair Topic Menu ■

Choose a topic that excites you! Use the guiding question to get started, then design your own experiment, investigation, or invention.

■ Life & Environmental Science

- Plants in Space: Can plants grow in 'Martian soil'?
- Plastic-Free Oceans: How do microplastics affect plant growth or small aquatic life?
- Water Clean-Up: Can household materials filter dirty water?
- Bee-Friendly Solutions: What natural substances can replace harmful pesticides?

■ Physics & Engineering

- Drone Dynamics: How does wing or propeller design change flight stability?
- Solar Power Anywhere: Can solar panels work indoors with artificial light?
- Wind Energy: What's the best blade design for a homemade wind turbine?
- Magnet Magic: How does magnet strength affect levitation distance?

■ Chemistry & Materials

- Biodegradable Plastics: Which type of eco-plastic breaks down fastest?
- Natural vs. Synthetic: Can foods be dyed naturally and stay bright?
- Metal Corrosion: Do sodas, juices, or sports drinks corrode metals differently?
- pH Power: How does acidity change the speed of chemical reactions?

■ Human Behavior & Psychology

- Memory & Multitasking: Does multitasking affect memory recall?
- Game Brain: Do puzzle or strategy games improve problem-solving skills?
- Reading Colors: Does text or background color change reading comprehension?
- Sleep & Screens: Does screen time before bed impact sleep quality?

■ Technology & Innovation

- Password Power: Are numbers, words, or symbols strongest for passwords?
- VR Learning: Do students learn better in Virtual Reality or with textbooks?
- 3D Printing: Can 3D-printed parts hold as much weight as store-bought ones?
- AI Detection: Can AI spot plagiarism more effectively than teachers?

■ Creative 'Big Thinker' Topics

- Green Schools: Could algae farms reduce a school's carbon footprint?
- Edible Packaging: Can we make food wrappers we can actually eat?
- Math in Nature: Where does the Fibonacci sequence show up in plants, art, or music?
- Better Prosthetics: Can a low-cost, 3D-printed prosthetic work effectively?

■ Tip for GT Students: Choose a topic that doesn't just give you an answer, but makes you ask new questions along the way!