















**Overview:** Many activities in Whyville are designed to engage students in STEM. There are physical science activities within Whyville which cover everything from physics, astronomy, chemistry, and more.

Whyville Location	Activity Description	Sponsor	Physics	Astronomy	Chemistry	Special
WhyPower: Electric Farm	Students study the strengths and weaknesses of available renewable power plants.	U.S. Dept. of Labor, Texas Workforce Commission and Power Across Texas				Rate of return and kilowatt hours
WhyPower: Powerline	Learn how power travels from the power plant to a city	U.S. Dept. of Labor, Texas Workforce Commission and Power Across Texas				Resistance, Ohm's Law, advanced content, and kilowatt hours
WhyPower: Green Build	Students create an energy efficient home by optimizing construction materials and appliances.	U.S. Dept. of Labor, Texas Workforce Commission and Power Across Texas				R-values, budgeting, and kilowatt hours
WhyPower: Peak Power	Meet the daily power demand of a city by managing a power grid	U.S. Dept. of Labor, Texas Workforce Commission and Power Across Texas				Follow the power curve to earn bonus clams






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WhyPower: Power Planner	Predict the upcoming power demands of the city and choose plants based on your preferences	U.S. Dept. of Labor, Texas Workforce Commission and Power Across Texas and Next Generation Learning Challenges				Interpret historical data
Kinematic Attic	Determine the speed of an object by using a ruler and a stopwatch	SISBOS (Sisters in Science & Brothers of Science)				In-game data collection and graph interpretation
SkyScout Planetarium	View constellations and the zodiac in a simulated planetarium	SkyScout				Contains audio narration
Spin Lab / Ice Skater Game	Learn how angular momentum impacts how quickly an object spins					

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WASA: The Ion Charges Game	Attraction and repulsion of ions	NASA-JPL				
WASA: The Spectrum Game	Quiz game about waves from radio to gamma	NASA-JPL				Very useful graphics for explaining waves
WASA: The Spectroscopy Game	Burn gas and solid elements to view their spectrum fingerprint	NASA-JPL				Advanced play. Instructions for making a classroom spectrometer included. Links to external teacher resources
WASA: The Rocket Launch Game	Design your own rocket and launch it to the space station	NASA-JPL				Engineering and design

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WASA: Zero Gravity Game	Use projectiles to bump into goals in a zero gravity environment	NASA-JPL				
WASA: Star Factory	Learn about the life cycles of stars and the elements they produce	NASA-JPL				
WASA: The Ion Engine Game	Manipulate the fuel and charged plates within an ion engine to optimize thrust	NASA-JPL				Engineering and Design