

Parent Guide to Student Success

Rutherford County Schools is committed to providing high quality instruction anchored in the [Tennessee State Standards](#) using state adopted and board approved curriculum resources.

What to Expect in 6th Grade Science

The theme for sixth grade science is how energy drives ecosystems, such as in populations and food chains/webs, Earth's natural resources (renewable and nonrenewable), and Earth processes (oceans, weather, and climate). In turn, oceans, weather, and climate help determine characteristics of ecosystems. Science, Technology, Engineering, and Mathematics (i.e., STEM) integration is supported through engineering design as students evaluate design constraints on solutions and design and test different solutions.



A Sample of What Your Child Will Be Working On

- Analyzing and interpreting data to show the relationship between kinetic energy and the mass of an object and its speed.
- Evaluating information about the pros and cons of specific renewable energy sources including their impacts on the environment and ecosystems.
- Developing and using a model to show convection patterns that flow due to uneven heating of the earth.
- Constructing an explanation for how atmospheric flow, geographic features, and ocean currents affect the climate of a region through heat transfer.
- Engaging in an argument from evidence to show how changes in biodiversity would impact ecosystems and cause the system to become unstable.



Conversation Starters

With Students

- What are you learning about in your science class?
- Can you show me a sample of something you have done?
- What observations have you made? Have you done any investigations? Drawn any models?
- What goals do you have for your science class? How can I help?

With Teachers

- Is my child meeting the expectations of this class?
- How can I keep track of their progress and see if they have any missing assignments?
- What are some experiments we can do at home together?



Terminology Refresher

- **Kinetic Energy:** The energy of motion. If you see an object moving you are witnessing kinetic energy.
- **Atmospheric flow:** The movement or circulation of air and thermal energy across the surface of the Earth.
- **Thermal Energy:** Simply put - it's heat and it causes atoms and molecules to speed up and crash into each other.



Resources:

[TN State Standards](#) |