

K-8 Loudon County Summer Scholars Guide 2019-2020

Rising Grade: 4th grade Science

School: Greenback

Curriculum covered during the previous year that requires continued retention and repetition for students:

- Investigating Science
- The Engineering Process
- Technology and Coding
- Energy
- Plants and Animals
- Ecosystems
- Our Solar System
- Changes to Earth's Surface

Curriculum for the upcoming school year of which students should be aware, and areas that might be a challenge for students, with suggestions on how students can prepare for the upcoming year:

Questions to ponder:

- What are natural resources?
- What are some different sources of energy?
- How does energy affect motion? What is potential energy? What is kinetic energy? What is mechanical energy? How does energy affect speed?
- What is sound? How does sound travel through matter?
- What is light? What are some properties of light? What is refraction?
- How do plants and animals reproduce?
- What are populations, habitats, and niches?
- How do environmental changes affect organisms?
- How does energy move through ecosystems?
- How do shadows change?
- How do weathering and erosion affect Earth? How do movements in the crust change Earth? How does water affect Earth's surface?
- What do fossils tell us about the past?

Tips for preparing for the upcoming year:

- Visit the public library to check out books to explore the questions above
- Watch kid-friendly science videos such as The Magic School Bus, SciShow Kids, and Bill Nye the Science Guy
- Visit science museums and nature centers
- Explore nature and keep a science field journal
- Be curious! Ask Questions!

Suggested Summer Reading:

- National Geographic Kids
- Usborne First Encyclopedias

Suggested Activities/Practice Assignments

- Read books and magazines about science
- Explore nature keeping a field journal to document observations
- Conduct science experiments
- Visit Science Museums (AMSE, McClung The Muse)
- Visit Nature Centers (Ijams)
- Crash Course Kids Videos: www.youtube.com/user/crashcoursekids
- Science Experiments: <https://sciencebob.com>
- Fun Science Videos: www.youtube.com/watch?v=b5NK4CXI4GQ