

Core Skills Analysis

Science

- Lewis learned about ecosystems by creating a terrarium, understanding how plants, soil, water, and air interact in a contained environment.
- He explored the water cycle firsthand, observing processes like condensation and evaporation within the terrarium system.
- The activity helped Lewis comprehend the importance of balance in natural systems, seeing how too much or too little water can affect plant health.
- Lewis developed practical skills in botany and environmental science, including selecting appropriate plants and maintaining optimal conditions for growth.

Tips

To deepen Lewis's understanding of ecosystems and environmental science, encourage him to experiment by varying conditions within his terrarium, such as light levels, humidity, or plant types, to observe effects on growth and balance. He could also compare his terrarium to real outdoor ecosystems, noting similarities and differences. Integrate creative writing by having Lewis document a 'day in the life' of his terrarium inhabitants to engage his observation and storytelling skills. Visiting local botanical gardens or participating in community garden projects could further connect theory to real-life ecological systems.

Book Recommendations

- [Terrarium Detective](#) by Stephanie A. Fisher: A fun and interactive guide that introduces young readers to building and caring for terrariums, blending science with creativity.
- [The Hidden Life of Trees](#) by Peter Wohlleben: An accessible exploration of how trees communicate and support each other, helping readers appreciate ecosystems on a deeper level.
- [Ecosystems: How Plants and Animals Work Together](#) by Bobbie Kalman: An informative and illustrated book explaining ecosystem components and their interdependence in clear, engaging language.

Learning Standards

- ACSSU112 - Living things depend on each other and the environment to survive.
- ACSSU117 - The growth and survival of living things are affected by the physical conditions of their environment.
- ACSHE223 - Pose questions to clarify practical problems or inform a scientific investigation.

Try This Next

- Create a maintenance log worksheet where Lewis records observations about plant growth, humidity levels, and any changes over time in the terrarium.
- Design a quiz to test key terrarium concepts, such as the water cycle stages, photosynthesis, and ecosystem interdependence.
- Draw and label the different layers of the terrarium ecosystem to visualize how each contributes to the overall balance.

Growth Beyond Academics

This activity likely nurtured Lewis's curiosity and responsibility, as maintaining a terrarium requires consistent care and observation. It may also have encouraged patience while waiting for plants to grow and resilience in troubleshooting any issues with plant health or environmental balance.