

HOMESCHOOL NATIONS Science

Resources, energy, environment, and technology as a system.

Grade fit: Grades 5-12 · Format: printable PDF unit

About this unit

Science here is systems science. Your nation depends on resources, energy, land, water, and technology, and every improvement has a cost somewhere else. Students run experiments on a working model instead of reading about one.

What students will be able to do

- Describe renewable and nonrenewable resources and their tradeoffs
- Explain how technology levels change what a society can produce
- Design a fair test with one variable and a control
- Interpret data tables and defend a conclusion
- Connect environmental decisions to long-term outcomes

These are sample pages only. The complete unit, answer keys, and printable worksheet packs are part of the Homeschool Nations bundle.

Sample lesson — topics covered

Natural resources

32 resources with dependencies and synergies teach scarcity, extraction, and supply chains in concrete terms.

Energy and infrastructure

Power, transport, and industry improvements show how energy choices shape output and quality of life.

Technology progression

A 1-30 technology track unlocks new capability. Students see research as investment with delayed payoff.

Try it this week

1. Run a controlled test: change only technology for five days and record output
2. Map your nation's resource dependencies as a flow chart
3. Research one real resource your nation holds and write a one-page report

Sample worksheet

Name: _____ Date: _____

1. In one sentence, what is the big idea of this Science unit?

2. Describe one decision you made in your nation and what happened next.

3. What evidence from your nation's data supports that answer?

4. What would you do differently next week, and why?

Weekly plan at a glance

- Monday: introduce the concept and the question
- Tuesday: hypothesis and test design
- Wednesday and Thursday: run and record
- Friday: conclusion write-up with a chart

Full unit — including every worksheet, rubric, and answer key — unlocks with the Homeschool Nations bundle at sfcnations.com/homeschool-nations-launch