**Winchester STARBASE  
Science Additional Lessons  
Grade 4**

**4.1 Scientific Investigation, Reasoning, & Logic**

* 3-2-1 Puff Rockets
* Bubble Gum Physics
* Bubble Time Folder
* Scientific Investigations Vocabulary
* Sponge Bob-Controls & Variables 1
* Sponge Bob-Controls & Variables 2
* Sticky Tape
* Variables Practice key
* Variable Practice

**4.2, 4.3 Force, Motion, & Energy**

* Adventures in Rocket Science (25 Activities)
* Balloon Rockets
* Climbing Mountain Climber Template
* Climbing Mountain Climber
* Discover Earthquake Resistant Structures
* Discover Foil Activity
* Discover Keep a Cube
* Discover Safe Landing
* Discover Tennis Anyone
* Discover Windy City Tower
* Electrical Engineering Challenge
* Electromagnets
* Force, Mass and Demolition Derby
* Friction Lab
* Get a Move On Electron
* Investigating Motion
* Marble Madness
* Newton’s Second Law of Motion
* Static Electricity

**4.4 Life Processes**

* Flower Dissection
* Flower Parts
* Garden in a Glove
* Grass Seed People
* Habitat Overcrowding
* Photosynthesis Game
* Photosynthesis

**4.5 Living Systems**

* Food Chain & Food Web Folder
* Change is Good
* Lunar Biosphere
* The Best Beak for the Job

**4.6 Interrelationships in Earth & Space Systems**

* Barometer in a Bottle
* Building a Thermometer
* Cold/Warm Liquid Density
* Estimating Cloud Cover
* Measurement and Tools
* Name That Cloud
* Surface Color and Temperature Change
* Weather and Climate Information

**4.7, 4.8 Earth Patterns, Cycles, & Change**

* Apollo Landing Sites
* Diameter of the Moon
* Distance to the Moon
* On the Moon Design Challenges (6 Activities)
* Play-doh Planets
* Pocket Solar System
* Solar System Game
* The Case of the Galactic Vacation

**4.9 Earth’s Resources**

* VA Forests Changing Forests
* Virginia Products BINGO
* Watershed
* Watershed and Envirosnacks

**Winchester STARBASE**

**Math Additional Lessons  
Grade 4**

**4.1, 4.2, 4.3 Number & Number Sense**

* Decimal Match
* Decimal Power point
* Fraction Match Card Game Template
* Fraction Match Directions
* Rounding with a Number Line

**4.4, 4.5, 4.6 Computation & Estimation**

* Adding Fractions tic-tac-toe Directions
* Adding Fractions tic-tac-toe template
* Fraction Golf
* Math Menu (4th and 5th SOL’s)

**4.7, 4.8, 4.9, 4.10, 4.11, 4.12 Measurement & Geometry**

* Customary Measurement Foldable
* Metric Measurements
* Metric Mania Folder
* Gummy Bear lab
* Scavenger Hunt for Length
* Anglefinder
* Shapes with Chickpeas and Toothpicks

**4.13, 4.14 Probability & Statistics**

* M & M Graphs
* Mean Median Mode and Range
* Leprechaun Luck Probability Game
* Probability Centers

**4.15, 4.16 Patterns, Functions, & Algebra**

* Creating Equations & Inequalities
* Picnic Partners
* Toothpick & Staircase Patterns
* What’s my Rule

**Activities/Projects/Websites**

* Scavenger Hunt
* Math online activities and apps
* Mathematical Profile cards

Go to PHET Interactive Simulations for elementary activities on numbers, number lines, fractions, ratios, and area: [Filter - PhET Interactive Simulations (colorado.edu)](https://phet.colorado.edu/en/simulations/filter?subjects=math&levels=elementary-school&type=html,prototype)