# **Virtual Forest: SOL Links**

( <a href="http://www.ext.vt.edu/resources/4h/virtualforest/">http://www.ext.vt.edu/resources/4h/virtualforest/</a> )

4-H Virtual Forest modules can be used to supplement the following Virginia Standards of Learning. You may find more!

#### Let's Cruise!!!

#### **Science**

## Scientific Investigation, Reasoning, and Logic

- 5.1 b) estimations of length, mass, and volume are made
  - d) accurate measurements are made using basic tools

#### Resources

4.8 d) forests, soil, and land

#### **Math**

#### **Computation and Estimation**

5.2 The student will create and solve problems involving addition, subtraction, multiplication, and division of whole numbers, using paper and pencil, estimation, mental computation, and calculators.

#### Measurement

5.9 The student will identify and describe the diameter, radius, chord, and circumference of a circle.

#### **Old-Field Succession**

#### **Science**

### **Scientific Reasoning and Logic**

3.1 k) natural events are sequenced chronologically

#### **Living Systems**

- 4.5 d) habitats and niches
  - f) influence of human activity on ecosystems

#### Resources

- 4.8 b) animals and plants
  - d) forests, soil, and land
- **LS.11** The student will investigate and understand that ecosystems, communities, populations, and organisms are dynamic and change over time (daily, seasonal, and long term).

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# **Photosynthesis: Putting Together with Light**

## **Science**

#### **Life Processes**

4.4 c) photosynthesis (sunlight, chlorophyll, water, carbon dioxide, oxygen, and sugar)

## Resources

- 3.10 a) the interdependency of plants and animals
- 4.8 d) forests, soil, and land
- **LS.6** The student will investigate and understand the basic physical and chemical processes of photosynthesis and its importance to plant and animal life.
  - a) energy transfer between sunlight and chlorophyll
  - b) transformation of water and carbon dioxide into sugar and oxygen

# **Sprawl**

#### **Science**

# Scientific Investigation, Reasoning, and Logic

- 3.1 a) predictions and observations are made
  - j) inferences are made and conclusions are drawn
- 4.1 b) hypotheses are formulated based on cause-and-effect relationships

#### **Living Systems**

- 4.5 a) behavioral and structural adaptations
  - f) influence of human activity on ecosystems

#### **Resources**

- 3.10 b) the effects of human activity on the quality of air, water, and habitat
- 4.8 d) forests, soil, and land
- a) management of renewable resources (water, air, soil, plant life, animal life)
  - c) the mitigation of land-use and environmental hazards through preventive measures
- **LS.12** The student will investigate and understand the relationships between ecosystem dynamics and human activity.
  - b) change in habitat size, quality, or structure
  - c) change in species composition
  - d) population disturbances and factors that threaten or enhance species survival

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### Timberrr!

## **Science**

#### Resources

- 4.8 d) forests, soil, and land
- 6.9 a) management of renewable resources (water, air, soil, plant life, animal life)

## The Tree Detective

#### **Science**

#### **Life Processes**

4.4 a) the structures of typical plants (leaves, stems, roots, and flowers)

### Resources

4.8 d) forests, soil, and land

## **Trees: The Renewable Resource**

## **Science**

# Force, Motion, and Energy

d) renewable energy sources (wood, wind, hydro, geothermal, tidal, and solar)

#### Resources

- 3.10 d) conservation and resource renewal
- 3.11 d) renewable and nonrenewable energy resources
- 4.8 d) forests, soil, and land
- 6.9 a) management of renewable resources (water, air, soil, plant life, animal life)