

## Small Engines

### Unit 1 – Crack it Up

- 200 - External parts - display a small (max. 18 h.p.) engine with external parts identified by name and function.
- 203 - Tools - display of 10 tools (secured to a display board) or pictures of 10 tools (poster specifications) and describe their functions.
- 205 - Shop Safety - display or poster focusing on small engine shop safety.

### Unit 2 – Warm it Up

- 210 - Internal parts - display a small (max. 18 h.p.) engine with internal parts identified by name and function.
- 215 - Personal safety - display or poster focusing on personal safety in a small engine shop.
- 220 - Engine oil - display or poster on engine oil viscosity and service classification.

### Unit 3 – Tune it Up

- 225 - Troubleshooting - poster or display on troubleshooting an engine, how the problem was identified, and how it was fixed.
- 230 - Starting a business - display or poster on the research done in consideration of starting a small engine business.

## Electricity (display on any phase of project)

### Level 1 – Magic of Electricity

- 300 - Poster
- 305 - Simple working circuit using a light, buzzer, lamp or other electricity powered object
- 310 - Completed project book

### Level 2 – Investigating Electricity

- 315 - Poster
- 320 - Simple telegraph, burglar alarm, or rocket launch system
- 325 - Completed project book

### Level 3 – Wired for Power

- 330 - Poster
- 335 - Electrical tool & supply kit with items labeled
- 340 - Completed project book

### Level 4 – Entering Electronics

- 345 - Display of electronic parts, labeled with description
- 350 - Display of a LED flasher “blinky”
- 355 - Poster on the uses of solar cells throughout Monroe County
- 360 - Display of Integrated Circuit (IC), label its function and where it is used



## Bicycle Adventures

### Unit 1

- 400 - Poster – Safety check list for your bike
- 405 - Poster – Road signs and what they mean – use correct colors
- 410 - Poster – Show the correct way to make a left hand turn
- 415 - Poster – List hazards of riding a bike
- 420 - Completed project book

- 425 - Poster – Showing parts of bike
- 430 - Poster – List typical “failures” of a bike rider that could cause an accident.
- 435 - Collage including information on purchasing and riding a bike.
- 440 - Completed project book



## Section 40 Entomology

Class	5.00	4.00	3.00	2.00	1.00
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- 100 - Poster – Mount a picture, photo or drawing of an insect and identify its body parts
- 105 - Poster – Mount a picture, photo or drawing of three different insects and identify by mouth type
- 110 - Poster – Mount a picture, photo or drawing of three different insects and identify their method of communication
- 115 - Poster – Exhibit your record of cricket behavior observations
- 120 - Poster – List five insect pests and what you could use to control them without using chemicals
- 125 - Poster – Reproduce the drawing of the grasshopper on page 28 and list its digestive parts
- 130 - Project book

### What's Bugging You? – Unit 2

- 200 - Poster – Mount three ads using insect images to sell their product. List obvious errors in the portrayal of the insect.
- 205 - Display your insect trap
- 210 - Poster – Display three help wanted ads that indicate that a person with an entomology background would be hired; be sure to include the name of the paper, date and page number.
- 215 - Display your insect extractor
- 220 - Project book

### Dragons, Houses and Other Flies – Unit 3

- 300 - Poster – Make a list of five plants that you found would attract butterflies. Also, list other insects that were attracted to the same plants.
- 305 - Poster – List ten different insects and identify the mouth type.
- 310 - Display your rearing/observation chamber
- 315 - Display your water scope
- 320 - Project book