## STUDENT PAGE

# Gypsy Moth Control Team Cards



#### **NO CONTROL**

Your team advocates doing nothing, which will allow natural biological processes to function in the forest. For example, predation by birds, spiders, and flies will help to control outbreaks. Your team hopes that outbreak populations will be brought back to nondamaging levels by those processes before the gypsy moths cause social or economic damage.

#### **CULTURAL CONTROL**

Your team advocates cultural practices, which focus on the growing and planting of vegetation. To control the gypsy moth, you advocate planting a variety of trees, including ones that the gypsy moths prefer not to eat. You also advocate improving the health of established trees through watering, fertilizing, and pruning so the trees can better withstand a gypsy moth attack.

### MECHANICAL OR MANUAL CONTROL

Your team focuses on mechanical practices that change the gypsy moth's access to food and ability to reproduce. Your team advocates using traps to catch male gypsy moths so that they can't mate. Your team also advocates picking egg masses from trees and dunking them into soapy water, plus using sticky barriers to prevent larvae (caterpillars) from crawling up tree trunks to reach the food source.

### **BIOLOGICAL CONTROL**

Your team focuses on biological controls, such as introducing natural enemies (predators and disease organisms) to maintain gypsy moth populations at nondamaging levels. Predators such as beetles, flies, and wasps attack gypsy moth larvae. Spraying the area with disease organisms, such as Nuclear Polyhidrosis Virus (NPV) or Bacillus thuringiensis (Bt), kills any gypsy moth larvae that ingest the organisms. (Spraying also kills other butterfly and moth larvae that ingest the spray.)

### **REGULATORY CONTROL**

Your team advocates strict quarantines to keep the moth from spreading. You might require inspection of household goods and camping equipment that are being moved out of an infested area.

### **CHEMICAL CONTROL**

Your team advocates using chemicals to eradicate or manage the gypsy moth. Broad-spectrum synthetic chemicals, which are very effective, can be poisonous to many other organisms. Sprays derived from natural products generally kill only invertebrates but may be less effective than synthetic chemicals.