

# KNOWeeds

## K-12 Montana Noxious Weed Curriculum

### **Curriculum Design**

The curriculum will be organized into seven sections. Activities will fall into one of these seven sections that range from awareness and appreciation to action oriented skills. The seven sections guide the student from basic ecological principles and concepts in the lower grades to demonstration projects in the higher grade levels.

- 1) ***Awareness and appreciation:*** Activities in this section are introductory and designed to establish a foundation for activities to follow. Topics include: ecosystems, adaptive strategies of non-native plants, establishment and economic and ecological problems.
- 2) ***Diversity of land values:*** Provide students with an opportunity to consider the range of contributions by plants to people, agriculture, and the environment. Topics include: aesthetic, ecological, scientific, political, commercial, economic, recreational and intrinsic values.
- 3) ***Ecological principles:*** Provides a foundation for understanding the characteristics of plant ecosystems. Topics include: habitats, those species that inhabit them, native and non-native plant identification and classification, plant growth and development, succession, biodiversity and consequences to the environment.
- 4) ***Management and conservation:*** Builds on general principles established in the previous sections. This section provides a more in-depth understanding of Integrated Weed Management and the complexities in managing and preventing noxious weeds.
- 5) ***People, culture and botany:*** Examines the impacts of human cultural traditions on plant species and how these perspectives influence management. Topics focus on ethno botany and Native American use of plant species.
- 6) ***Issues and consequences:*** Most effective for students who have foundations in ecological principles. Difficult issues are addressed and students are able to apply knowledge they have gained by considering difficult issues and their consequences. Students focus on diverse audiences, values, opinions and understanding community process. Topics include rangeland health and human health effects.
- 7) ***Community Involvement:*** Designed for students to recognize, evaluate and make responsible decisions as citizens in their communities. Students are able to apply their knowledge in action-oriented research and demonstration projects in their community.