



Grade: K-2

Duration of Lesson: 3- 45 minute classes

Brief: Students will be introduced to identifying noxious weed species in Montana through terms of color, shape, and size

Note: Assistance levels vary with grades and learner's abilities

Materials:

Crayons or makers

Montana Noxious Weed Education folder

Montana Noxious Weed Education cards

Montana Noxious Weed Education poster

Classroom prints of the Montana Noxious Weed Education illustrations (Print a different illustration for each student, you may wish to check with your local weed control district to find out which weeds are the most prevalent in your area). Illustrations are available on the cd or on the web at:
<http://agr.mt.gov/Agriculture-in-the-Classroom/> choose K-8 projects, then Montana Noxious Weed Education (MNWE) project, follow links to illustrations

Key Terms

Color, size, shape, plant, flower, bloom, noxious

MONTANA COMMON CORE STANDARDS:

ELA K. Writing

2. Text Types and Purposes: Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

ELA K. Reading Informational Texts

7. Integration of Knowledge and Ideas: With prompting and support, describe the relationship between illustrations and the text in which they appear.

ELA K. Speaking and Listening

5. Presentation of Knowledge and Ideas: Add drawings or other visual displays to descriptions as desired or provided additional detail.

ELA 1. Reading Informational Texts

7. Integration of Knowledge and Ideas: Use the illustrations and details in a text to describe its key ideas.

ELA 2. Reading Informational Texts

7. Integration of Knowledge and Ideas: Explain how specific images contribute to and clarify text.

NGSS K. Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

Disciplinary Core Ideas, ESS3.C: Human Impacts on Earth Systems

Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2) (K-ESS3-3)

NGSS 2: Interdependent Relationships in Ecosystems

Disciplinary Core Ideas, ETS1. B: Developing Possible Solutions

Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (secondary to 2-LS2-2)

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| <u>Students will know:</u> Montana has 32 noxious weeds, and how to look for identifying characteristics separating by design | <u>Students will be able to:</u> Match a chosen noxious weed with the corresponding information card and photo on poster |
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Performance / Observations

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| <u>Performance Task(s):</u> Complete illustration with correct color matches | <u>Other Evidence:</u> Students will display final results of their investigation on a bulletin board along with corresponding MNWE cards |
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Learning / Inquiry Activities

Introduction

Invasive weeds are the greatest threat to Montana's environment. When these invaders are allowed to invade and spread, they cause a reduction in wildlife forage, degrade fisheries through erosion and sediment buildup, reduce property values, and erode our beautiful viewsheds in Montana. Currently, Montana has approximately 7.6 million precious acres infested with state-listed noxious weeds, and several new and potentially devastating invaders knocking on the door at our borders.

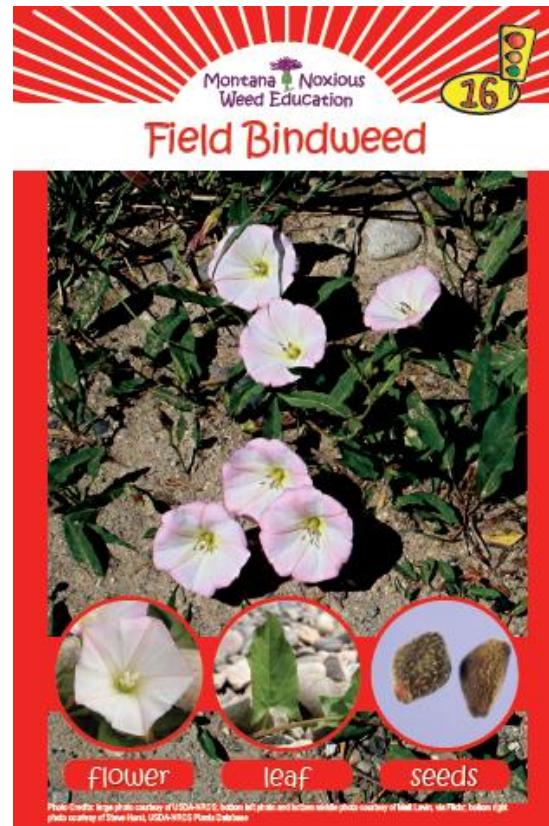
Montana Weed Control Association: <http://www.mtweed.org/>

Learning / Inquiry Activities:

Show students the Montana Noxious Weed Education packet, cards, and poster. Let them know that they will be creating informational illustrations on noxious weeds using the cards and poster, and when completed the illustrations will be shown on a bulletin board in your school or community.

Students have three ways to match their illustration with the correct photo on the poster or the correct photos on the cards: color, shape, and size.

1. Lay the MNWE cards on a table and display the poster.
2. Hold up the cards and illustration examples for Field Bindweed #16. Show them that they will be matching their illustration to the correct card and then the poster. This can be done in at least 3 ways:
 - a. Match the shape of the flowers
 - b. Match the shape of the leaves
 - c. Match the size of the flowers in proportion to the size of the leaves
 - d. Optional: Read and match names (according to student's abilities)
3. Ask students to tell you why the Field Bindweed illustration and card 26 match by using the key terms.



- Distribute the illustrations you have printed to each student, inform them that they are illustrating very important information for others in the school, including visitors. Ask students to go match their illustration to the corresponding cards, checking the card and illustration matches as they pick them using the key terms you have described above. They will use their corresponding card for more details when completing their illustrations.

NOTE: Since this is a scientific illustration exercise, the colors they use should **MATCH** the color on the corresponding cards. Bloom colors and leaf colors should be as close as possible to matching the cards.

- As students work on their illustrations, read from the cards about some of the ways their particular noxious weeds invade our state and cause issues for recreationalist, farmers, ranchers, and the economy. The spread of noxious weeds in Montana is a very real issue that they can help with, here is how:

Check your shoes, shoelaces, clothing, tires, and any gear you had along for weed seeds and plant parts: Throw the weed seeds and plant parts away in a trash receptacle. Do not throw them on the ground as they can start new infestations.

- When all of the illustrations are completed please create an informational bulletin board in your school or community to show your student's work, the MNWE cards and poster, and any other information you can use to help with educating about noxious weeds.

Thank you for being part of the solution to noxious weed control in Montana!

Contact your local Weed District Coordinator <http://www.mtweed.org/> for more information.