

# GRADE SIX: LET'S EXPLORE INVASIVE SPECIES

## Lesson Goals:

Students will demonstrate an understanding of how invasive species can impact local biodiversity and how humans can act to preserve biodiversity.

Students will demonstrate an ability to effectively use art to communicate information about an invasive species.

## Curriculum Expectations:

- **1.1** analyse a local issue related to biodiversity, taking different points of view into consideration, propose action that can be taken to preserve biodiversity, and act on the proposal.
- **2.5** use a variety of forms to communicate with different audiences and for a variety of purposes.
- **3.7** explain how invasive species reduce biodiversity in local environments.

## Class Discussion Prompts:

- What invasive species have you heard of?
- How do invasive species affect our native environments?
- Why is it important to protect biodiversity?
- How can we stop the spread of invasive species?
- How can we raise awareness about invasive species?
- How does art tell a story?
- How can we use art to communicate information about science?

## Structure + Activity:

### Activity One:

- Teachers will show students the Youtube video (from the 'Additional Resources' listed below) and facilitate class discussion about biodiversity, invasive species, and prevention/management of invasive species.
- The class will discuss using art to communicate science and how to communicate with different audiences (information and further resources in visual science communication are included on the next page of this document).

### Activity Two:

- Students will use art to communicate scientific information about a local invasive species of their choice. They will create posters to inform the public on why this species is a threat to local biodiversity and share ways that the public can help intervene. To brainstorm and plan their poster, students can use the "Let's be Science Communicators" worksheet.
- Optionally, teachers can have students give two-minute presentations of their posters to the class. Students will imagine they are pitching their poster to the Ontario Government, with the goal of having their poster be used in invasive species awareness programs.

## Additional Resources:

**Video:** <https://www.youtube.com/watch?v=gYNAtw1c7hI>

**Website:** <https://kids.britannica.com/students/article/invasive-species/631812>

**Book:** "Keep Out! Invasive Species" by Sara Latta

# GRADE SIX: LET'S EXPLORE INVASIVE SPECIES

**Species:** Zebra Mussel

**Scientific Name:** *Dreissena polymorpha*

**Species:** Round Goby

**Scientific Name:** *Neogobius melanostomus*

**Species:** Purple Loosestrife

**Scientific Name:** *Lythrum salicaria*

**Species:** Emerald Ash Borer

**Scientific Name:** *Agilus planipennis*

**Species:** Asian Carp

**Scientific Name:** *Cyprinus carpio*

## Other Invasive Species:

Sea lamprey, Asian longhorned beetle, spotted lanternfly, garlic mustard, buckthorn.

## Additional Information on Invasive Species:

- <http://www.invadingspecies.com/invaders/>
- <https://www.natureconservancy.ca/en/what-we-do/resource-centre/invasive-species/>
- <https://www.thecanadianencyclopedia.ca/en/article/invasive-species-in-canada-animals>

## Visual Science Communication

There are many ways that we can use art to impart scientific information to audiences. Some key factors that students should consider when making their posters include:

### The Elements of Design

- Shape and Form
- Colour
- Line
- Space
- Size
- Value
- Texture

### The Principles of Design

- Emphasis
- Movement
- Balance
- Harmony
- Contrast
- Repetition

Throughout this activity, students should be considering how to use these concepts to 'tell a story' with their art. They want to engage the public and motivate them to help the problem of invasive species, and should be using the above concepts to achieve that goal.

For more in-depth documents about visual science communication, visit the "Resources and Posters" page on the SMART website! [www.smartwindsor.com/free-posters-and-resources](http://www.smartwindsor.com/free-posters-and-resources)

Name: \_\_\_\_\_ Date: \_\_\_\_\_



# LET'S BE SCIENCE COMMUNICATORS!

Imagine you have been hired by the Government of Ontario to help inform the public about a local invasive species of your choice!

*Your task is to create a poster that will tell people how this species is impacting local biodiversity and what they can do to stop those impacts.*

To do this effectively you must think about how you can use art to convey your message to your audience. Ask yourself:

- Who is this poster aimed at?
- What images and text should be included?
- What colours and fonts will draw the audience in?
- How can this poster make people want to act?

**Answer the following questions to start thinking about how to design your poster:**

What invasive species is your poster about?

\_\_\_\_\_

Why is this species a threat to local biodiversity?

\_\_\_\_\_

\_\_\_\_\_

How can people help stop this invasive species?

\_\_\_\_\_

\_\_\_\_\_

I want my audience to feel \_\_\_\_\_ when they see my poster.

I will use the colour(s) \_\_\_\_\_ to convey this emotion.

I will use \_\_\_\_\_ shapes to convey this emotion.