

Microplastics

A Regional Science Consortium

Education Initiative



Subject: Science

Grades: 4-6

Number of Participants:
15 groups of 1-3 students

Regional Science Consortium

Microplastics

This lesson provides students with an introduction to microplastics through educational information in the form of a recorded PowerPoint lesson, video, and hands-on activity.

Supply List

In this kit:

- Digital copies of materials available at www.RegSciConsort.com
 - Microplastics lesson (ppt)
 - Microplastics lesson (mp4)
 - Educational video
 - Paperwork
 - Introduction (pdf)
 - Activity instructions (pdf)
 - Student worksheet (pdf)
 - Teacher guide (pdf)
 - Skype with a Scientist discussion points (pdf)
- Samples (15)
- Contain dryer lint
- Mesh (120)
- Large (30)
- Medium (30)
- Fine (30)
- Super fine (30)
- Plastic beakers (15)
- Rubber bands (30)

Component	Length
Lesson	10:28
Video	4:20
Activity	30-45 min
Worksheet	
Skype with a Scientist session	15 min

Provided by educator:

- Paper towels
- Water
 - Added to dryer lint samples

Goal

After completing this lesson, students will have gained a detailed understanding of microplastics in the environment, their role in Erie, PA, and what actions they can perform to reduce their personal contributions to this global issue.

Additional Resources

Related RSC Lessons:

- Ichthyology (Coming soon!)
- Marine Debris (Coming soon!)
- Stormwater Runoff

Citizen Science Programs:

- International Coastal Cleanup
 - <https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/>
- The Big Microplastics Survey
 - <http://microplasticsurvey.org/get-involved>

Pennsylvania Academic Standards

Grade 4	Grade 7	Grade 10	Grade 12
3.1.4. E	3.1.7. E	3.2.10. C	3.2.12 C
3.2.4. C, D	3.2.7. C, D	4.3.10. A, B	4.2.12. A
3.3.4. A	4.2.7. B, D	4.6.10. C	4.3.12. A, C
4.2.4. D	4.3.7. A, B		4.6.12. A, C
4.3.4. A, B	4.6.7. C		4.8.12. C
4.8.4. C	4.8.7. C, D		