

SIFTER DESIGN CHALLENGE (6-8):

Common Core Standards

Reading - Informational:

6.SL.4, 7.SL.4, 8.SL.4

Reading - Science and Technical:

6-8.RST.1, 6-8.RST.4, 6-8.RST.9



Teachers: View the [Sustainable Coastlines Hawaii](#) website with your students.

Together: Talk about plastic pollution found on local beaches and the work that Sustainable Coastlines Hawaii does.

Teachers: Break the class up into teams.

Students: Think about the design of a plastic sifter.

- What materials will you use to create it?
- How will it separate the sand from the plastic pollution?
- How big will it be and how much will it weigh?
- Will you add any decoration to it? What will you name it?

Present your team's invention to the rest of the class.

Together: Organize a beach clean-up and use the sifters that you have designed.

MATERIALS:

- Hole puncher
- Paper and pencils
- Reusable plastic containers
- Scissors and tape
- Twine or yarn
- Other materials as needed



ARTICLE:

[Ocean Trash: 5.25 Trillion Pieces and Counting, But Big Questions Remain](#), by National Geographic

BOOKS:



[Going Blue: A Teen Guide to Saving Our Oceans, Lakes, Rivers, and Wetlands](#), by Cathryn Berger Kaye and Philippe Cousteau

[Tracking Trash: Flotsam, Jetsam, and the Science of Ocean Motion](#), by Loree Griffin Burns



[Plastic, Ahoy!: Investigating the Great Pacific Garbage Patch](#), by Patricia Newman

VIDEO:

[Why is Plastic Marine Debris So Common?](#), by PBS Learning Media

