



Materials List

Activity 1 – Reduce Your Footprint with Shrinky Dinks®

How can you reuse plastic with recycle code 6?

Activity 2 – Cleaning Up Oil Spills with Chemistry

Which method works best to clean up spilled oil in the ocean?

Activity 3 – Choose and Reuse Compostable Plastics

Part 1: Which liquids are *PVA friendly*?

Part 2: How can we chemically convert PVA bait bags to slime?

PPE for each participant

- Splash goggles (Safety glasses are suitable for Activity 1)
- Non-latex gloves, 2 pairs

Specialty items

- Oil absorbent mat, such as:
 - [3M™ Oil-Only Folded Sorbent Roll](#)
 - 1 perforated mat is big enough to be cut into 15 pieces
 - 1 box serves a maximum of 45 participants per box
 - [Pig® Oil-Only Absorbent Mat](#)
 - Each mat is big enough to be cut into 18 pieces
 - 1 box serves a maximum of 900 participants per box
 - [3M™ Petroleum Sorbent Mat HP-156](#)
 - Each mat is big enough to be cut into 18 pieces
 - 1 box serves a maximum of 1,800 participants per box
- Carp fishing PVA bait bags such as:
 - [Mimilure™ PVA Carp Fishing Quick Water Soluble Bait Bags](#).
 - Small size 6 cm x 12 cm
 - One set of 100 bags serves up to 33 participants.
 - If using another brand or size, make adjustments to the procedure in Activity 3, Part 2
- *Optional*: Oil-based food color, such as [AmeriColor™](#), [Wilton®](#), or [ChefMaster®](#)
 - 1 bottle of any color is plenty provided you pre-color the oil
 - If you would like to color the water, use regular water-based food coloring

Have access to the following

- Paper towels, to wipe up drips and spills
- Table coverings, a large clean plastic trash bag works well. When you are finished turn it inside out and use the bag to collect and contain trash. Alternatively, used newspapers will help protect desks and tables.
- Oven or toaster oven able to heat to 325–350 °F (about 165–175 °C)
- Access to water

Each participant will gather one of each from a recycle bin

- Piece of plastic packaging marked with recycle code #6 or “PS” (polystyrene)
 - Typically clamshell style packaging is #6
 - Polystyrene feels more brittle than other plastics and cracks easily
- Piece of used brown cardboard, such as from an empty cereal box, at least 15 x 20 cm

Items for an adult to use

- Metal tray or cookie sheet to heat plastic pieces
- Aluminum foil to cover the metal tray or cookie sheet
- Oven mitt
- Spatula to flatten and move hot plastic pieces

Items and quantities listed are per participant

- Permanent markers, variety of colors
- Pencil or pen to label areas of the cardboard
- *Optional:* Non-toxic washable gel paint or food coloring
- *Optional:* Hole punch, string
- Graph paper
- Scissors
- Tray, cookie sheet, or large cake pan that can get wet or oily
- 6 small cups, like the kind for dosing medication or portion cups
 - If you are able to clean between activities only 4 small cups are need
- 4 wide cups or bowls
- $\frac{1}{8}$ teaspoon measuring spoon, 0.625 mL
- 1 teaspoon measuring spoon, 5 mL
- Spoon, plastic or metal
- Popsicle[®] stick, cocktail stirrer, or spoon
- 6 cotton swabs
- 1 flat cotton make-up removal pad (square, circle, or oval) or 5 cotton balls
- Water
- Dishwashing liquid, such as, Dawn[®], Palmolive[®], Ajax[®] or a generic alternative, 5 mL
- Vegetable or mineral oil, 5 mL
- Rubbing alcohol (isopropyl alcohol), 70%, 5 mL
- Salt, $\frac{1}{8}$ teaspoon
- Borax[®] solution, 4% 5 mL
 - To make your own borax solution, use $\frac{1}{8}$ teaspoon Borax[®] powder per 10 mL water