PFAS Scavenger Hunt Activity- Teachers

Goals:

The PFAS Scavenger Hunt activity is designed to engage students in an interactive exploration of PFAS sources, impacts, and solutions. Through this hands-on approach, students will develop critical thinking, research, and teamwork skills while gaining a deeper understanding of PFAS in their daily lives and environment.

Expected Outcomes:

By the end of this activity, students will:

1. Identify Common Sources of PFAS: Recognize everyday products and environmental locations where PFAS are commonly found.
2. Understand PFAS Distribution: Explore how PFAS move through air, water, soil, and living organisms.
3. Develop Research and Inquiry Skills – Use clues and information to discover key facts about PFAS.
4. Enhance Collaboration and Engagement: Work as a team to solve challenges and discuss their findings.
5. Reflect on Solutions and Actions: Consider ways to reduce PFAS exposure and advocate for informed decision-making.
6. Explore Alternative Materials: Think critically about alternative materials that can replace PFAS in various products to reduce environmental contamination.

60 Items That May Contain PFAS

Categories

1. **Kitchen and Food**
    - Non-stick frying pan
    - Microwave popcorn bag
    - Food packaging
    - Disposable plates
    - Wax paper
    - Takeout coffee cups
    - Non-stick baking sheets

- Plastic storage containers
- Paper towels
- Baking parchment
- Food storage wraps
- Coffee makers

2. **Clothing and Accessories**
    - Water-repellent jacket
    - Waterproof shoes
    - Raincoats
    - Backpack rain covers
    - Snow pants
    - Baby bibs
3. **Home and Furniture**
    - Stain-resistant carpet
    - Stain-resistant furniture
    - Mattress protectors
    - Shower curtains
    - Pet beds
4. **Personal Care and Health**
    - Cosmetics
    - Dental floss
    - Diapers
    - Menstrual products
    - Face masks
    - Waterproof makeup
    - Sunscreen sprays
5. **Outdoor and Sports**
    - Camping gear
    - Sports gear

- Artificial turf
- Ski wax
- Fishing gear
- Yoga mats

6. **Vehicles and Tools**
    - Car wax
    - Bike lubricants
    - Car interiors
    - Work gloves
7. **Miscellaneous**
    - Firefighting foam
    - Adhesives
    - Grease-resistant paper
    - Medical gowns
    - Coated cardboard
    - Roofing materials
    - Garden hoses
    - Grocery bags
    - Electronics
    - Insulated lunch bags
    - Phone cases

Item Found	Where You Found It	Why Might It Contain PFAS?	Potential Alternative
Non-stick frying pan	Kitchen	Non-stick coatings often use PFAS	Ceramic or cast-iron cookware
Microwave popcorn bag	Pantry	Grease-resistant coatings	Plain paper bags for popcorn
Water-repellent jacket	Closet	Water-repellent treatments often contain PFAS	PFAS-free outdoor gear
Food packaging	Fast-food restaurants	Grease-proofing chemicals	Uncoated paper or biodegradable packaging
Stain-resistant carpet	Living room	Stain-proofing treatments often use PFAS	PFAS-free carpet
Waterproof shoes	Closet	Water-repellent sprays	PFAS-free waterproofing treatments
Cosmetics	Bathroom	Long-lasting or waterproof formulations	PFAS-free certified cosmetics
Dental floss	Bathroom	Certain brands coat floss with PFAS	Waxed silk or biodegradable floss
Fast-food containers	Fast-food restaurants	Grease-resistant materials	Paper-based containers
Stain-resistant furniture	Living room	Stain-proofing sprays	PFAS-free upholstery treatments
Camping gear	Storage/Outdoor gear	Waterproof coatings	PFAS-free outdoor equipment
Raincoats	Closet	Water-repellent finishes	PFAS-free raincoats
Disposable plates	Party supplies	Grease-resistant coatings	Uncoated biodegradable plates
Paint	Garage	Certain durable paints	PFAS-free paint
Cleaning products	Under sink	Some contain surfactants with PFAS	Certified PFAS-free cleaners
Upholstery spray	Cleaning supplies	Water and stain repellents	PFAS-free fabric protectors
Firefighting foam	Emergency/fire safety kits	PFAS in aqueous film-forming foam	Fluorine-free foams
Adhesives	Office/garage	Durable industrial adhesives	PFAS-free adhesives
Car wax	Garage	Certain water-repellent waxes	PFAS-free car detailing products
Grease-resistant paper	Deli or bakery	Treated for grease resistance	Untreated paper wraps
Medical gowns	Clinics/hospitals	Water-resistant and non-stick coatings	PFAS-free medical textiles

Coated cardboard	Takeout or shipping boxes	Water or grease-proof coatings	Uncoated cardboard
Cookware	Kitchen	Non-stick or water-resistant coatings	Ceramic or stainless steel cookware
Sports gear	Gym/locker room	Water or stain-resistant materials	PFAS-free sports equipment
Artificial turf	Sports fields	Water-resistant infill or blades	PFAS-free artificial turf
Electronics	Home electronics	Insulating materials may contain PFAS	Research PFAS-free electronics (still limited)
Ski wax	Sports gear	Fluorinated ski waxes	PFAS-free ski wax
Water bottles	Kitchen/sports gear	Non-stick linings	Stainless steel bottles
Industrial lubricants	Garage/Workshop	PFAS in durable lubricants	Fluorine-free lubricants
Waterproof makeup	Bathroom	Water-repellent and long-lasting formulations	PFAS-free cosmetics
Wax paper	Kitchen	Grease-proof treatment	Uncoated parchment paper
Takeout coffee cups	Coffee shop	Water-resistant lining	Compostable cups without PFAS
Diapers	Baby supplies	Moisture-wicking materials	PFAS-free certified diapers
Menstrual products	Bathroom	Moisture barrier layers	Organic cotton products
Backpack rain covers	Storage/outdoor gear	Waterproof coatings	PFAS-free materials
Face masks	Personal protective equipment	Water-repellent coatings	Cloth masks without coatings
Shower curtains	Bathroom	Water-resistant treatments	Fabric or PFAS-free curtains
Non-stick baking sheets	Kitchen	Non-stick coatings	Silicone baking mats
Insulated lunch bags	School/work	Water and grease-resistant layers	PFAS-free insulated bags
Plastic storage containers	Kitchen	Non-stick inner coatings	Glass storage containers
Roofing materials	Construction supplies	Weatherproofing chemicals	PFAS-free roofing products
Garden hoses	Garden supplies	Flexible, water-resistant coatings	PFAS-free garden hoses
Paper towels	Kitchen	Treated for moisture resistance	Untreated or compostable paper towels
Pet beds	Living room/bedroom	Water and stain-resistant treatments	PFAS-free pet beds
Baby bibs	Baby supplies	Waterproof coatings	PFAS-free or fabric bibs

Mattress protectors	Bedroom	Water-resistant layers	PFAS-free mattress covers
Bike lubricants	Garage	Durable water-resistant properties	PFAS-free bike lubricants
Yoga mats	Gym/fitness equipment	Non-slip and water-resistant layers	PFAS-free yoga mats
Grocery bags	Kitchen/pantry	Water and grease-resistant reusable bags	Cotton or jute reusable bags
Car interiors	Vehicles	Stain-resistant upholstery	PFAS-free car interior treatments
Work gloves	Garage/Workshop	Waterproof or stain-resistant coatings	PFAS-free work gloves
Snow pants	Winter clothing	Water-resistant outer layers	PFAS-free snow gear
Baking parchment	Kitchen	Non-stick treatments	Silicone baking mats
Fishing gear	Outdoor gear	Waterproof and durable coatings	PFAS-free fishing equipment
Phone cases	Electronics	Durable and water-resistant materials	PFAS-free or biodegradable phone cases
Sunscreen sprays	Bathroom	Water-repellent formulations	PFAS-free sunscreen
Coffee makers	Kitchen	Non-stick components	PFAS-free or stainless steel coffee makers
Food storage wraps	Kitchen	Non-stick and grease-resistant coatings	Beeswax wraps

PFAS Scavenger Hunt Activity- Students

Objective: Identify everyday items or scenarios where PFAS might be present and understand their impact on the environment and health.

Instructions

1. Look around your home, school, or a provided list of hypothetical items.
2. Use the clues below to identify products or materials that may contain PFAS.
3. For each item, answer the questions in the table.

Clues

1. Kitchen and Food
    1. Seek out non-stick and greaseproof items. For instance: "I help you flip pancakes without a sticky mess—find me where you cook."
    2. "I wrap your burger and fries with care. Am I grease-proofed? Look there!"
2. Clothing and Accessories
    1. Seek out waterproof items. For instance: "Rain slides right off me, keeping you dry, but my coating could be why."
3. Home and Furniture
    1. Seek out waterproof and stain-resistant items. For instance: "I resist spills and stains underfoot, but my fibers might not be good."
4. Personal Care and Health
    1. "I make your lashes pop and stay waterproof, but check if I'm PFAS-proof."
5. Outdoor and Sports
    1. "Camping in the rain? My fabric keeps you dry again and again."
    2. "On snowy slopes, I glide with ease. Look for me where winter gear pleases."
6. Vehicles and Tools
    1. "I help your bike chain run smooth and clean—but is there PFAS in between?"
    2. "I'm inside your ride, stain-free and sleek. Look for my seats if you seek alternatives."
7. Miscellaneous

Scavenger Hunt Table

Item Found	Where You Found It	Why Might It Contain PFAS?	Potential Alternative?

Debrief Questions

1. How surprised were you by the number of items that might contain PFAS?
2. Which of these items do you use regularly?
3. What are the trade-offs of using PFAS-containing products versus alternatives?
4. How can you reduce PFAS exposure in your daily life?