| Environmental Issues and Resources | | | | |
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|  | **Why is this an issue/problem?** | **Research Resources** | **Data Collection Ideas** | **Action Ideas** |
| **Plastics/Styrofoam** | * People do not recycle enough plastic. * Plastics become litter, accumulate in the ocean, harm wildlife and food chain. * Plastics do not decompose; take up landfill space. * Some plastics contain harmful chemicals. * Plastics are made from oil; oil production and transportation can pollute the environment. * Styrofoam is not recycled in AA County. * Fast food cups, lids and straws are big source of plastic waste. * SOURCE REDUCTION is even better than recycling. | * Pebble Go>Social Studies>People and the Environment>Helping the Environment (text and video) * [Jellyfish or Plastic Bag?](http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=101482832) * [Plastics and Turtles Newsela](https://newsela.com/articles/plastic-turtles/id/12012/) * [Plastic Bag Bans Work](http://ocean.si.edu/ocean-photos/plastic-bag-bans-work) * [Bottles, Be Gone!](http://search.ebscohost.com/login.aspx?direct=true&db=mih&AN=60074288) * [Nat Geo Kids Water Bottle Pollution](http://kids.nationalgeographic.com/kids/stories/spacescience/water-bottle-pollution/) * [Bottled Water Newsela](https://newsela.com/articles/projectsyndicate-bottledwater/id/12644/) * [Plastic Problem Grolier](http://periodicals.grolier.com/php/ebsco/ebsco-go2.php?db=gkh&product=go3&editfield1=trash&StartRecNo=4&NoRec=1) * [An Ocean of Trash](http://search.ebscohost.com/login.aspx?direct=true&db=mih&AN=52543365) | * School or home surveys about plastic grocery bag use, single-use water/drink bottle use or fast food habits * School or home surveys about recycling * Monitor recycling at school * Schoolyard hunt for plastic litter | * Make reusable [grocery bags out of old t-shirts](http://www.instructables.com/id/No-Sew-10-Minute-T-Shirt-Tote/) * Decorate reusable grocery bags * Write letters to stores or community leaders about plastic bags and suggest alternatives * Create car mirror hangers with earth-friendly shopping reminders: “Bring reusable bags, buy in bulk, say “no” to Styrofoam, avoid excess packaging,” etc. * Decorate reusable water bottles, snack containers or sandwich containers * Create in-home recycle bins for use throughout the house (e.g., in bathrooms for shampoo bottles, old toothbrushes, etc.) to increase recycling rates * Create a laminated weekly menu planner/shopping list to reduce dependence on fast food (which creates plastic waste such as drinking straws and lids) * Create reusable cloth sandwich baggies/snack baggies |
| **Solid Waste** | * Landfill space is limited; people don’t want new landfills built near them. * We throw away plastic, paper, glass, metal, food, and other things. * AA County curbside trash is transported to VA, which uses energy and creates pollution. * Some trash is burned to create energy, but this creates more air pollution. * Styrofoam cannot be recycled in AA County so it adds to landfill problem. * SOURCE REDUCTION is even better than recycling. * Plant-based food waste can be composted * [AA County Landfill History & Future](http://www.aacounty.org/departments/public-works/waste-management/landfill/history-and-future/) | * Pebble Go>Science>Earth and Space>Earth>Natural Resources>Humans and Earth (text and video) * Pebble Go>Social Studies>People and the Environment>Helping the Environment (text and video) * [Britannica School Elementary “recycling”](http://school.eb.com/levels/elementary/article/353701) * [Discovery Education Video: Trash and the Environment (13.5 minutes in 4 segments)](https://aacps.discoveryeducation.com/player/view/assetGuid/dfe0827a-b27e-4ab5-a866-4641ef8fcff8) * [Recycling Pro and Con Newsela](https://newsela.com/articles/recycling-procon/id/13773/) * [Food Waste](https://www.epa.gov/recycle/reducing-wasted-food-home) * [How To Waste Less Food (sidebar)](http://search.ebscohost.com/login.aspx?direct=true&db=mih&AN=103735565) * [Composting at Home](https://www.epa.gov/recycle/composting-home) * [Electronic Waste Newsela](https://newsela.com/articles/states-recycling/id/13190/) | * School or home surveys about shopping habits, source reduction and alternatives to throwing things away * Monitor recycling at school * Monitor food waste at school * Monitor waste/overuse of materials like napkins, paper towels, paper | * See actions above for reducing waste from plastics * Create a “Think Before You Shop” poster to hang at home: Do I really need this? Shop second-hand first; say “no” to plastic shopping bags, etc. * Collect items for donation that might otherwise be discarded * Host a book, toy or clothing swap * Use old clothes or towels to make new things (dog toys, reusable grocery bags, etc.) * Create in-home recycle bins (e.g., in home office for junk mail or in bathrooms for shampoo bottles, toilet tissue tubes, etc.) * Remove name from catalogue mailing lists and other junk mail lists * Create cafeteria table toppers with reminders of how to reduce waste: Conserve paper napkins, leftover food from home can go back home, compostable items, recyclable items, etc. * Build [mini-composters](http://www.createyourowneden.org.nz/schools_docs/CYOE%20Activity%20-%20how%20to%20build%20a%20miniature%20compost.pdf) for students to demonstrate composting to family members |
| **Litter** | * Litter is ugly, attracts pests, and provides places for mosquitoes to lay eggs. * Litter is eaten by wildlife or entraps them. * Most litter is food and drink related. * Cigarette butts are litter and can also cause wildfires. * Litter travels by wind and water, accumulates in the ocean, harms wildlife and food chain. | * Pebble Go>Social Studies>People and the Environment>Helping the Environment * [Britannica School Elementary “pollution”](http://school.eb.com/levels/elementary/article/353650) * [Keep America Beautiful](https://www.kab.org/home) * [An Ocean of Trash](http://search.ebscohost.com/login.aspx?direct=true&db=mih&AN=52543365) | * Schoolyard litter tally and sort * Survey about litter in the community * School or home survey on knowledge, attitudes and behavior about litter | * See ideas above for promoting reusable items rather than single-use items, which tend to become litter * Conduct a litter pick-up (Contact Arlington Echo for Litter Pick-Up kit 410-222-3822). * Create and post laminated outdoor anti-litter signs in problem areas. * Fund-raise or contact PTA for funds for additional trash cans on school grounds; include plan for emptying. * Create bumper stickers about litter. * Write for [free bumper stickers](http://www.litterproject.com/litterproject-gear/). |
| **Energy Conservation** | * Much of our energy comes from fossil fuels (coal, oil, natural gas); mining these fuels can pollute the environment; natural gas mining called “fracking” can also cause earthquakes. * Burning these fuels creates air pollution. | * Pebble Go>Social Studies>People and the Environment>Helping the Environment * [Solar Energy Newsela](https://newsela.com/articles/overview-solar-energy/id/21121/) * [Wind Energy Newsela](https://newsela.com/articles/overview-wind-power/id/21005/) * [EnergyStar.gov](https://www.energystar.gov/index.cfm?c=kids.kids_index) * [Using and Saving Energy](http://www.eia.gov/kids/energy.cfm?page=3) * [Just the Facts Energy](http://search.ebscohost.com/login.aspx?direct=true&db=prh&AN=39755036&site=ehost-live) | * Monitor energy use at school. For example, count lights left on in empty rooms. * School or home survey about energy use * School or home survey about transportation habits | * Create light switch labels to remind people to turn off lights and electronics when leaving a room. * Create thermostat label: Think Before You Adjust (other ways to warm up or cool off). * Create your own 5-minute shower [sand timer](http://www.wikihow.com/Make-a-Sand-Timer-from-Recycled-Plastic-Bottles) (hot water uses energy). * Create magnetic “Full Loads Only” reminder labels for laundry washers and dish washers (hot water uses energy). * See additional ideas below for reducing air pollution, which is caused by energy use. |
| **Air Pollution** | * Air pollution can cause asthma and other health problems. * Air pollution becomes acid rain, which pollutes waterways and destroys forests. * Air pollution becomes Chesapeake Bay water pollution. | * Pebble Go>Science>Earth and Space>Earth>Natural Resources>Humans and Earth * [Britannica School Elementary “pollution”](http://school.eb.com/levels/elementary/article/353650) * [EPA Acid Rain Kids Site](https://www3.epa.gov/acidrain/education/site_kids/index.htm) | * Monitor school pick-up line: cars idling? * School or home survey about energy use * School or home survey about transportation habits | * See ideas above for energy conservation, which reduces air pollution. * Create car mirror hangers with reminders to avoid sitting in drive-thru lines; promote parking and walking in; turn off the car when waiting for someone. * Create laminated, reusable weekly errand planners to help combine car trips. * Create “No-idle Zone” signs for school pick-up line. * Plan regular school-wide “walk, bike, scooter, skate to school day” with incentives for participation. |
| **Water**  **Conservation** | * Most of AA County gets its water from underground aquifers. Fresh water is a resource that must be managed properly to make sure we have enough. Aquifers refill naturally but we cannot take water out faster than it goes in. * Our waste water can have an impact on the Chesapeake Bay * [AA County Water Report](http://www.aacounty.org/departments/public-works/utilities/forms-and-publications/WaterQuality2015.pdf) * [Aquifer Water Levels](http://www.mgs.md.gov/groundwater/current/anne_arundel_county_network.html) | * Pebble Go>Social Studies>People and the Environment>Helping the Environment * [Water Sense for Kids](https://www3.epa.gov/watersense/kids/index.html) * [Kristen’s Conservation](http://content.ebscohost.com/ContentServer.asp?T=P&P=AN&K=16726221&S=R&D=mih&EbscoContent=dGJyMMvl7ESeprM4wtvhOLCmr06ep7FSsqa4Ta6WxWXS&ContentCustomer=dGJyMPGvs1GzrrBMuePfgeyx45Du4%2FEA) * [Home Savings Plan](http://search.ebscohost.com/login.aspx?direct=true&db=ulh&AN=108722406) | * School or home survey about water use habits * School or home search for leaky faucets and toilets running | * Create water conservation posters to use near sinks and drinking fountains at school. * Create [window-clings](http://teachingmama.org/diy-window-clings/) with a water conservation message for bathroom mirrors at home. * Create 5-minute shower [sand timer](http://www.wikihow.com/Make-a-Sand-Timer-from-Recycled-Plastic-Bottles)s. * Create magnetic “Full Loads Only” reminder labels for laundry washers and dish washers. * Create laminated reusable leaky faucet/toilet inspection sheets for regular home check-ups. * Create posters to hang at home about outdoor water conservation. |
| **Pollinators** | * Pollinator populations are declining. * Many fruits and vegetables require pollination. * Pollinators are part of food chain. * [MD partial ban on neonicotinoids](http://www.bna.com/maryland-first-state-n57982073298/) | * [Pollinator Decline Newsela](https://newsela.com/articles/pollinator-decline/id/15378/) * [Britannica School Elementary “bee”](http://school.eb.com/levels/elementary/article/352839) * [Time For Kids Top Stories 4-12-16](http://www.timeforkids.com/content/tfk-top-stories-04-12-16) * [EPA Honeybee Infographic](https://www.epa.gov/sites/production/files/2016-01/documents/infographic_jan._2016.pdf) * [DE Video Bee Population Decline](https://aacps.discoveryeducation.com/player/view/assetGuid/8bfaaefb-e1ab-436f-913f-60fa9d75ce1f) | * Schoolyard pollinator and habitat search * School or home survey: knowledge, attitudes, and behaviors about pollinators and pollinator-friendly practices. | * Plant native flowering plants (or seeds) at school or home. [Pollinator Plant List](http://dnr2.maryland.gov/wildlife/Pages/habitat/wahumbutbee.aspx) * Create a wallet-sized information card for parents with a buying guide: plants not treated with neonicotinoid pesticides; organic produce and products * Participate in [Great Sunflower Project](https://www.greatsunflower.org/) |
| **Chesapeake Bay Water Quality** | * Many living things depend on good water quality. * People depend on the Bay for food, work and recreation (watermen, sailing, boating, restaurants, hotels, etc.) * Main threats to the Bay are sediment, nutrients and bacteria. * Storm drains carry these pollutants into the Bay * Air pollution from energy use also pollutes the Bay. | * Chesapeake Bay Foundation * Chesapeake Bay Program “Learn the Issues” * [How to Help the Bay](http://www.chesapeakebay.net/TakeAction/howtotips) | * Schoolyard inspection for erosion * School energy use study * Home survey about relevant issues such as erosion, fertilizer use, energy use, or pet waste. | * See energy conservation and air pollution reduction ideas above; air pollution becomes Bay pollution. * Repair schoolyard erosion (mulch or seed method). Contact Arlington Echo for guidance 410-222-3822. * Create, laminate and post signs about pet waste pick-up * [Storm drain “no dumping” stenciling](https://blackboard.aacps.org/bbcswebdav/xid-838511_1) * Create poster with fertilizer guidelines to be hung in garage at home (e.g., Fertilize in the fall, If at all) |
| **Deforestation** | * Forests are habitats for many living things. * Forests protect water quality in streams, rivers and the Bay. * Forests clean the air. * People enjoy forests for camping, hiking, etc. * The maintenance (mowing) of large, grass-covered open spaces wastes energy and creates air pollution. | * [Britannica School Elementary "forest"](http://school.eb.com/levels/elementary/article/390614) * Pebble Go>Science>Earth and Space>Earth>Natural Resources>Humans and Earth * [Forests Branch Out](http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=23676835) * [Forests in Trouble](http://search.ebscohost.com/login.aspx?direct=true&db=sch&AN=17945340) * [Trees Stop Crime Newsela](https://newsela.com/articles/trees-stop-crime/id/19862/) | * Monitor trash at school; are paper products going in the trash? * School or home survey: use of paper products and paper recycling. * Home survey about lawn size, trees and tree planting * Count trees dead/dying on school grounds | * Create “point of use” reminders that paper products come from trees. * Create “No Paper” reminder signs on/near trash cans. * Promote tree-planting and care at home. * Add nest boxes to school grounds (Contact Arlington Echo 410-222-3822) * Promote recycling at home by creating in-home recycle bins (e.g., home office bin for junk mail and bathroom bins for tissue tubes) * Remove name from catalog mailing lists and other junk mail lists. * Create a laminated weekly menu planner/shopping list to reduce dependence on fast food, which creates paper waste. * Support kindergarten tree planting with a summer watering plan. * Write letters to businesses or community leaders encouraging tree-planting in open spaces. |