| 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
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| **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
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| **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/).
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| **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.
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| **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.
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| **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.
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| **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/)
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| **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)
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| **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.
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