

Nature Notes

A weekly round-up of useful information we explore the natural wonders around Nolan Catholic High School.

October 17, 2019

Question of the Week:

What are those little yellow dots on the milkweed?



<http://nathistoc.bio.uci.edu/hemipt/OleanderAphid.htm>

<https://www.jhunewsletter.com/article/2017/03/the-aphid-the-complex-foe-of-all-gardeners>

http://entnemdept.ufl.edu/creatures/orn/shrubs/oleander_aphid.htm

<https://blogs.unimelb.edu.au/sciencecommunication/2012/10/14/winter-is-coming-fatherless-males-of-the-aphids/>

Answer:

They are oleander aphids, a nuisance insect with a bizarre life story. Sources differ on how dangerous aphids are to milkweeds. At best, they are unsightly, and excrete a white substance onto the milkweed leaves called honeydew. The sticky honeydew can turn into sooty mildew. At worst, oleander aphids can kill the milkweed plant.

However, these tiny creatures are also pretty amazing. Their gold color warns predators, because they gain the same toxin protection from eating milkweed that monarch caterpillars do.

The aphid life cycle is a strange, but brilliant way to survive changes in weather and food availability. Adult female aphids give live birth to tiny girl aphid clones of themselves. This ability for aphids to clone themselves without partners enables aphid populations to explode when they find a suitable host plant. Once they have exhausted the food supply, aphid moms start giving birth to winged clones. The babies can then fly to find other plants to ravage.

Given the female aphid's ability to clone herself, why bother with male aphids at all? Winter. Adult aphids can't survive the harsher conditions of winter. So in late fall, mom aphids start cloning, but the babies are born without a second X chromosome, creating male aphids. Those mate with females, and the females lay eggs, which survive the winter quite well, guaranteeing a fresh crop of female aphids next spring to start the whole cycle over again.

Recycle Crayons!

Who knew? For the cost of shipping, you can mail all those broken bits of leftover crayon to an organization that makes them into new crayons, employs people with developmental disabilities, and keeps tons of petroleum-based crayons out of landfills.

Plus, if you're looking for unique gifts, they sell their recycled crayons and fire starters from crayon wrappers.

That's just a win for everyone!

<https://crazycrayons.com/crayon-recycle-program/>

Recycle Athletic Shoes!

Let's get our viking athletes involved in this one. Nike will take back any brand of athletic shoe, and recycle it into raw materials. Their factory stores in Grapevine and Grand Prairie are drop off locations. According to their website, over 70% of their new gear utilizes recycled material from their shoe program.

<https://www.nike.com/help/a/recycle-shoes>

Repurpose old cell phones

Do you always wonder what to do with your old cell phones? This organization refurbishes old phones for soldiers throughout the world. Their website explains how you can wipe personal data off your phone before sending it. Any phones they can't use, they recycle (and they've recycled over 20 million phones already!)

<https://www.cellphonesforsoldiers.com/>

BUY Recycled

This company recycles stonyfield farms yogurt cups and other #5 plastics into things like toothbrushes and razor blades. Once you're done using those products, they'll take them back and give you coupons to buy more. Now that's one way to close the loop!

<https://www.preserve.eco/collections>

Good Reads

We may not all have the experience of climbing real mountains, but this article offers an insightful perspective on why we long for that mountaintop experience:

<https://creatio.org/verso-l-alto/>

From the creation, learn to admire the Lord! Indeed the magnitude and beauty of creation display a God who is the artificer of the universe. He has made the mode of creation to be our best teacher.

- St. John Chrysostom (347-470)

Courtyard Adventures

We have new sign stakes for your use in the courtyards. These stakes hold a normal sized sheet of paper, and can be used throughout both courtyards when you want students gathering information at stations. So far we have 10 available, although I can get more if needed. If you'd like to use the stakes, please include a note in your courtyard reservation e-mail, and I will get them to you. Thanks!!



Please remind your students that they can use the courtyards during passing periods.

Remember, I'm available to help with activities and lesson plans if you want to get your students outside but don't know where to start. Email or come by my office anytime.

Where to find Emily next week

Monday 9:30-2

Tuesday out of office, but available as needed over e-mail

Wednesday 9:30-1

Thursday 8:30-4

ebreclaw@nchstx.org

Outdoor Learning Headquarters

In the office immediately to the left of the teacher boxes in room D22.

Please come by anytime! Let's chat about how we can work outdoor learning into your lesson plans!

Personal cell: 682-438-2393

