#Giving Tuesday THANK YOU!
Denise Echelbarger

On November 28, WSU Extension 4–H came together to do good. You made donations, cared for our communities, and proved that, when we take action together, we can change our world through generosity. Thank you!

Ferry County earned the $300 match by having the most donor contributions for #GivingTuesday 2023. Overall WSU 4–H saw an increase from $500 in donations in 2022 to
$2,100 for 2023’s #GivingTuesday. Thank you so much to the entire 4–H community that shared in the excitement of kicking off the charitable season and end-of-year giving.

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Introducing the New State 4–H Fair Manager!

Kirk Gresham

Hello 4–H Families,

I’m excited to introduce myself, Kellian Whidden, to Washington State 4–H families as your new 4–H State Fair Manager.

I bring with me twenty-one years of military experience managing people and projects to the office. I have been involved with 4–H for a number of years – first as a parent volunteer for a couple of years, then spending four and a half years as the 4–H Program Coordinator for Clark County. As the Program Coordinator, I was responsible for managing clubs, editing the Clark County Fair Exhibitor Guide, working with all the Superintendents, and making sure all the 4–H projects entered into the County Fair were judged. The last two years, I participated at the State Fair as the 4–H Horse Superintendent for Senior and Intermediate Performance. I enjoyed working with all the State Fair employees and 4–H families.

I look forward to working with all the 4–H State Fair Superintendents to put on the State Fair in 2024.
Kellian Whidden

Kellian’s contact email is st4hfair@gmail.com.

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**Premium Checks Have Been Mailed!**

Kirk Gresham

2023 Washington 4-H State Fair Premium Checks were mailed on November 9. Contact the State Fair office with questions or concerns.

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**State 4-H Dog Committee Adopts New 4-H Curriculum**

Jennifer Leach

During the meeting of November 5, 2023, the Washington State 4-H Dog Leaders approved the replacement of The Complete Dog Book for Kids by AKC ©1996 with the 4-H Dog Project Manual (Facilitator Guide for Leaders and 4-H Members) by AKC ©2021 as a curriculum source. The manual will be used to create questions for Showmanship Care and Health Knowledge Topics, Dog Bowl, and any future skillathon event.


The Curriculum Committee will be reviewing and revising the current Showmanship Knowledge Topics and Questions to be published January 1, 2024.

DISCLAIMER: The 4-H Dog Project Manual was a project of Florida 4-H with the cooperation of the American Kennel Club, therefore contains information specific to Florida 4-H,
primarily found in Chapter 1 – Introduction. Any information pertaining to Florida 4–H should be disregarded by Washington State 4–H Dog Leaders, members, parents, and volunteers.

Dog parents and leaders—if you have questions, please contact Amie Adams, Chair of the State Dog Committee Curriculum Committee at adamsrus1@hotmail.com

Submitted by Jennifer Leach, WSU 4–H Faculty and 4–H staff liaison to State 4–H Dog Committee

State 4–H Ambassadors Present the 4–H Youth of the Month for November!

Berklie Sheppard

The Washington State 4–H Ambassadors recognize the 4–H Youth of the Month honoree for November, Chloe Clyburn of Kittitas County! The Ambassadors are proud to highlight 4–H youth monthly throughout the year!
If you have any questions about the State Ambassadors, or are interested in joining, please email wa4hsa@gmail.com. We hope to hear from you!

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**WA State 4-H Equine Science and Horsemanship series Continues!**

Kim Baker

The WA State 4-H Equine Science and Horsemanship series will continue through September 2024. Register online at [https://bit.ly/WA4-HEquineScience](https://bit.ly/WA4-HEquineScience) or by email to: kim.baker@wsu.edu.

Hands–on Fun for Everyone! Every fourth Thursday of the month, 6:30 to 7:30 pm on Zoom!
WSU EXTENSION | WA STATE 4-H
EQUINE SCIENCE
& HORSEMANSHIP SERIES

FUN VIRTUAL
EQUINE LEARNING
FOR EVERYONE!

4th THURSDAYS
DEC 2023 - SEPT 2024
6:30-7:30 PM
ON ZOOM

REGISTER HERE:
HTTPS://BIT.LY/WA4-MC4HINE-SCIENCE
OR BY EMAIL: KIM.BAKER@WSU.EDU

4-H
WASHINGTON STATE UNIVERSITY
EXTENSION
Jennifer Leach

After much discussion and consideration of feedback from key Washington 4-H horse judges, key horse program volunteers/leaders and State Equine Committee of county 4-H staff and faculty, a decision has been made to return to a Washington-based model for developing and implementing a Washington State 4-H Equine program rulebook, as well as training of 4-H horse show judges, rather than the multi-state PNW model (Oregon, Washington and Idaho) that has been in place for many years.

This change has been officially enacted as of the new 4-H year which began October 1st, 2023, and we are currently in the process of redesigning essential components of our program to align with these changes.

Here is what is happening:

1. Washington State 4-H will have a state-specific rulebook that is updated on an annual basis or as-needed and aligned with the start of the 4-H program year.
2. Recommendations or suggestions to the rulebook or other official WA 4-H Program policies and procedures can be initiated by any judge, volunteer, staff/faculty, parent, or member by submitting an online form, which can be found here: https://wsu.co1.qualtrics.com/jfe/form/SV_7VXMLPDSCPCPG6y.
3. Depending on the rule or policy change as related to the 4-H equine program—final recommendations are vested in the State 4-H Equine Committee with final approval with the State 4-H program leader.
4. The state equine committee is working to develop a Washington State 4-H Horse Judges School that is accessible, affordable, and efficient while still upholding a high standard for professionalism, knowledge, and utilization of the 4-H Positive Youth Development framework.

This will mean several things for the existing PNW 4-H Horse Judges list:

1. The PNW horse judges list will still be active on our WA website and carried over, and so judges who are currently on the list will remain on the list and be part of the new Washington 4-H horse judges’ system.
2. Once the development of the new judge’s training system is in place, the Washington State 4-H horse judges list will be updated.
3. Washington State 4-H Equine Program Rules for the 2023–2024 can be expected to be consistent with the updates that were introduced late this summer via two addenda that were posted to the Horse Program Website.

It is our hope that this change creates a stronger 4-H equine program in Washington State with an efficient system for training judges, show managers, and volunteers by maintaining a rulebook that has clearly defined rules and policies that is reflective of Washington State 4-
H program that promotes horsemanship, sportsmanship, and the Essential Elements of positive youth development.

We realize that many people will have questions, and we ask that you have patience as we work to answer questions and consider any feedback we receive.

For questions about the 4-H horse judge’s training, contact Stephanie Roeter-Smith.

For questions and/or clarifications about Washington 4-H policies and rules related to equine, contact Jennifer Leach, WSU 4-H equine contact.

The Washington 4-H Horse Judge's Sub Committee members are:
Stephanie Roeter Smith, WSU 4-H Faculty, subcommittee chair
Jennifer Leach, WSU 4-H Faculty and State 4-H equine contact
Kim Baker, 4-H Staff
RA Mazzola, 4-H Staff
Pat Pehling, 4-H Volunteer
Dusti Kissler, 4-H Staff and 4-H Horse Judge
Dawn Spencer, 4-H Judge
Anne Garrett, 4-H Judge
Patty Burns, 4-H Judge
Sherri Spoltman, 4-H Judge

Submitted by Jennifer Leach, WSU 4-H Horse Contact- Email: jleach@wsu.edu and Stephanie Roeter-Smith– Email: stephanie.roeter@wsu.edu

Save the Dates! State Equine Presentations for 2024!
Kim Baker & Jennifer Leach
New for 2024 — the state equine presentations, formerly called “National Equine Presentations,” will no longer be held at the 4-H State Fair. This year, the equine presentation contest will be held February 3, 2024 and will be virtual.

These are specific presentations for seniors that focus on the equine industry that include:
individual presentation, team presentation, and public speaking, with the top blue ribbon winners eligible to represent the Washington State 4–H equine program at the Eastern 4–H Equine Roundup that is held the first weekend of November in Louisville, Kentucky.

More details will come later about the specifics of the contest, such as registration information, updated rules, etc.

We wanted to let counties know now about the revised date in order to prepare senior 4–H members at the county level for the state contest.

Kim Baker has agreed to be the coordinator for this state contest. If you have questions about the contest contact Kim at kim.baker@wsu.edu or Jennifer Leach, State 4–H Horse contact at jleach@wsu.edu

Submitted by Jennifer Leach, State 4–H horse contact

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**Washington 4–H Horse Program Q and A Session Announces Topics for December 6th Zoom!**

Jennifer Leach & Kim Baker

The Q and A session for the Washington 4–H Equine Program is for parents, leaders, staff, and members has been offered monthly on the first Wednesday of each month from 6:30 to 7:30 pm

For December 6th Q and A, the topics will be updates for the upcoming 4–H year for state contests such as horse bowl, hippology; equine presentations; horse judging, and groom squad.

A very important update and details will also be shared on the soon to be published Washington State 4–H Equine Rule book being developed by the State 4–H Equine Committee. This rule book will be replacing the PNW 4–H Horse Contest Guide.

The December meeting will be facilitated by Jennifer Leach, 4–H Equine Contact/Specialist and Kim Baker, State 4–H Equine Coordinator.

**The Zoom meeting ID is 452–082–9765 with no passcode.** You must have a zoom account to participate.

State 4–H Equine Open Office Hours are hosted on the first Wednesday of each month at 6:30 pm on Zoom. All are welcome – members to staff, statewide!! Pop in to ask a question any time during the hour. **We anticipate questions about the State 4–H Equine**
Presentations Contest coming up February 3 this month and next, but bring any questions you may have, or just stop in to share ideas and stories!!

Submitted by Jennifer Leach, 4-H Equine Contact/Specialist

Check Out 4-H International Exchange 2024 Outbound Opportunities NOW!

Carolyn Russo

Interested in traveling outbound with 4-H International Exchange? Start an application at this link: https://smr.to/p92010 and contact Carolyn Russo at carolyn.russo@wsu.edu to schedule an interview.

Washington State applications and interviews need to be completed and submitted by December 10, 2023.

Dates, ages and countries being traveled to in the summer of 2024 are:

- Costa Rica (age 15–18) June 20–July 19
- Japan 4 week (age 12–18) July 10–August 9
- Japan 8 week (age 15–18) June 12–August 9
- South Korea (age 12–17) July 16–August 15
- Taiwan (age 12–18) July 16–August 15
- Norway (age 15–18) June 20–July 15
- Argentina (age 15–18) June 20–July 15
Ask Dr. Universe: What Is Pi? – Johsan, 10, Alabama

Do you love babies? Check out this podcast episode with a baby scientist!

Dr. Universe: What is Pi? – Johsan, 10, Alabama

Dear Johsan,

One of my favorite holidays is Pi Day. On March 14, people who love the math constant called pi celebrate by eating the other kind of pie. Like apple pie, pumpkin pie and even pizza pie.

I talked about the number pi with my friend Kristin Lesseig. She studies how kids learn math.

She told me pi is the ratio between the distance around a circle and the distance across a circle. A ratio is the relationship between two numbers. We usually think of pi as about 3.14—but there’s more to it than that.
“Pi is a fabulous ratio that’s constant across every single circle,” Lesseig said. “It doesn’t matter how big or how small the circle is. That ratio is always a wee bit more than three.”

Lesseig teaches this idea using licorice laces. Her students draw circles then stretch licorice laces across the middle of their circles. They cut several lengths of licorice equal to the distance. Then, they wrap those pieces around the circles. For every circle, it takes three pieces plus a little more to go around the circle.

One way to look at that relationship is with division. Let’s say the distance around a circle—its circumference—is 6.28 inches. The distance across the circle—its diameter—is 2 inches. If we divide 6.28 by 2, the answer is 3.14. That’s pi rounded to two decimal places.
Using that short version of pi is easy and works fine for simple problems. If you've ever used the pi button on a calculator, that probably uses pi rounded to ten decimal places. That's 3.1415926535.

As we build more powerful computers, we’re able to calculate pi with more precision. Right now, scientists know pi to 63 trillion places. That’s 63 trillion numbers after the decimal. But pi goes on forever.

I remember lying in my nest as a kitten, trying to wrap my brain around the idea of forever. I would think as far as I could then double it. Then double it again and again—until I felt dizzy with the bigness of it.

“The idea of infinity is so cool,” Lesseig said. “And it’s not something that you have to wait for college to study. You can make sense of it now.”

But pi is rad because it’s useful, too. People use pi to figure out the distance around a circle or how much space is inside it. Let’s say you had a circular garden. You could use pi to determine how much fence you need. Or how much soil will fill the garden.

**Space scientists use pi** to work out how big planets are, what asteroids are made of and the size of fuel tanks they need to power a spacecraft. Back on Earth, people use pi to aim satellites, figure out what size water heater they need and understand how motors work.

To me, the most amazing thing about pi is that it’s a pattern in nature and that ancient people noticed that pattern and used it to explore the world around them. Scientists are still
doing that today—and they’ll keep doing it as long as there are people thinking about the universe.

That’s something you can count on.

Sincerely,
Dr. Universe

Entomology is for everyone.

Check out the full podcast to hear more!!

Dr. Universe: What and where is the rarest plant in the world? – Thomas, 7, Virginia

Dear Thomas,

Every few years, a smell like a rotting corpse wafts around a stairwell at Washington State University Vancouver. But it’s not really a dead body. It’s the bloom of the corpse flower plant.

There are fewer than 1,000 corpse flower plants left in the wild. It’s one of the rarest plants in the world.

But the list of rare plants is massive. If you look at all the plants we know about in the world, there are about 435,000 different kinds of plants—and many more we don’t know
about. Some scientists say that more one-third of all plants are “exceedingly rare.”

I asked my friend Dawn Freeman what makes a plant rare. She’s responsible for the **WSU corpse flower**.

“What makes the corpse flower rare is that it has a very, very small native habitat,” Freeman said. “Its habitat is one side of one mountain range on the island Sumatra in Indonesia.”

That habitat is being destroyed to farm palm oil. Habitat destruction is one reason the corpse flower and other rare plants are in danger of going extinct.

The corpse flower is also rare because it takes so long to bloom. If you dig underneath a corpse flower plant, you’ll find a swollen root kind of like a potato. It’s called a corm. It can weigh up to 200 pounds!

The corm sends up a giant leaf. The leaf uses the sun’s light to make sugar and stores it in the corm. After about a year, the leaf dies, and the plant is dormant for a few months. The plant does this seven to ten times before it has enough energy to make its first bloom. That means it can take 10 years to make one bloom.

The maroon bloom looks like a flower, but it’s really a flower holder. Inside is a tall green spike with yellow flowers and red flowers on it. That spike makes heat and a **smell like rotting meat**. It’s an enticing smell for flesh flies, carrion beetles and other insects that eat or nest in dead things. They zoom toward the bloom and dive in to look for tasty rotten flesh—but it’s a trick.
As the disappointed flies and beetles climb out, pollen from the yellow flowers sticks to them. If they visit another blooming corpse flower, that pollen will fall off onto the red flowers and make fruit. Then a rhinoceros hornbill bird eats the fruit and poops out the seeds to make baby plants.

“So, it’s rare because its habitat is small and being degraded and because it only opens after 10 years and stays open for just a day or two,” Freeman said. “The fact that this plant persists at all in the wild is amazing.”

The corpse flower and many other rare plants are on the Red List of Threatened Species compiled by the International Union for the Conservation of Nature. You can use their database to investigate nearly 25,000 plants that are critically endangered, endangered or vulnerable. That means they’re at risk of becoming extinct unless we do something to protect them and their homes.

If you find one rarer—or more stinky—than the corpse flower, I’d love to hear about it.

Sincerely,
Dr. Universe

Get more questions and answers here!

Know a kid with a science question?
Help them submit it for a chance to be featured in a future Q&A.

Submit a question!

Updated December 5, 2023