Body Systems Diagnostic Challenge

Inspiring Problem Solvers Who Make a Difference

This story is about Elaine Scott and how 7th grade science was instrumental in saving her life.

Elaine started 7th grade at Northwood in the fall of 2015. Like many middle school students she was growing like a weed, always hungry and often tired. These characteristics, along with a busy schedule and Scandinavian heritage seemed to explain her thin frame and pale skin. As the year progressed Elaine expressed occasional concern about her hunger and tiredness but, as her mother Heidi explains, “We never had a 13-year old before so we assumed it was all part of growing up.”

Students learn about human body systems in 7th grade science. A part of this body systems unit is the Diagnostic Challenge. Using medical analysis, students in ‘physician’ teams look at patient symptoms and make diagnoses based on what they have learned about each body system and key diseases.

Last March during this project-based Diagnostic Challenge, Elaine came home and shared what she was discovering about diabetes. She told her parents, “It’s weird . . . every symptom we are learning about is something I’m experiencing.” To alleviate her concerns, they approached a neighbor whose daughter has Type 1 diabetes and asked to test Elaine’s blood. Fasting blood sugar should be less than 100 . . . Elaine’s was 375! They immediately headed to Sacred Heart Emergency where a diagnosis of Type 1 diabetes was confirmed. Elaine’s doctor informed the family she had most likely been experiencing blood sugar levels in the very high 600-700 range for several weeks – scary! Waiting even another day may have led to Elaine suffering a coma or worse.

Reflecting on this past year Elaine says, “It was actually school that really saved me from a coma and possibly even dying. I had unknowingly been getting sicker and sicker. Thank goodness I paid attention to the unit on diabetes.”

In a letter to the 7th grade science teachers, Elaine’s parents Heidi and Kelly expressed sincere appreciation stating, “Thank you for teaching our daughter and all her peers. Thank you for engaging them in meaningful and compelling lessons that keep their attention. We can’t imagine what might have happened had Elaine not self-diagnosed when she did.”

When Elaine grows up she wants to be a pediatric endocrinologist helping other young people deal with Type 1 diabetes. “That’s the goal,” says science teacher Renee Demand, “to show students real world context for the content being taught so they can be team-based problem solvers who make a difference in our world and community.”
**KHQ January “Teacher of the Month”**

Congratulations to Mead High special education teacher Beth Dolezal who is the KHQ January Teacher of the Month. Anna Passmore, one of Ms. Dolezal’s students, nominated her for the award, which was presented by KHQ Morning Show co-anchor Kalae Chock at an all school assembly on January 19th. Representatives from EWU and STCU, who help sponsor the award, were also on hand for the presentation.

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**2017-18 School Year All Day Kindergarten District-Wide**

Starting next year Colbert, Farwell, Meadow Ridge, Midway & Prairie View will join Brentwood, Evergreen & Shiloh Hills in offering all day kindergarten. To be considered “in compliance” by the state, all public school districts must offer kindergarten as an “all day” program starting in the fall of 2017.

Finding approximately 10 classrooms for the Mead School District to meet this state mandate has been challenging. Our student enrollment continues to grow – 190 this year with an increase of 900 students in the past 10 years. Prairie View and Midway are our fastest growing communities. At those two locations we are purchasing portable classrooms to provide the extra space. At Colbert, Farwell and Meadow Ridge we have creatively rolled-up our sleeves to find the needed classrooms. At some locations smaller support programs will now share a room and at others we are looking to convert common areas into specialist teaching spaces to free up classrooms.

An ideal elementary school has 500-550 students. At this time our elementary schools have enrollments ranging from 506 to 644.

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**2017-2018 Registration Opens March 1, 2017**

Elementary schools will be open extended hours on March 1st (8 am – 6 pm) to accept kindergarten and new student registrations.

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**Governor Inslee Visits Shiloh Hills**

Governor Jay Inslee and his wife Trudi had lunch in mid-January with Shiloh Hills teachers, including Principal Laura Duchow and Principal Assistant Nick Edwards. School Board members Denny Denholm, Bob Olson, Carmen Green, Chad Burchard and Superintendent Tom Rockefeller also had the opportunity to visit with Governor Inslee.

Teachers were able to share first-hand stories illustrating their passion for students and explore with Governor Inslee ways the state and his office can help support this work.
STEM Forward Tour Update

Starting in late fall the Mead School District began its first ever STEM Forward Tour providing several opportunities for students and parents to attend a variety of STEM exploratory activities. At this writing four of the original six events have taken place and two additional opportunities have been added. Upcoming STEM Forward Tour activities include:

- Feb. 25 – MSD Robotics Competition @ Mt. Spokane, Finals 12:30 pm
- March 17 – STEMplosion @ Whitworth University, 6-8 pm
- April 19 – Most Likely to Succeed documentary @ Mt. Spokane, 6-8:30 pm
- May (date tba) - Underwater Robotics Competition @ Whitworth

STEM Forward Tour Review

Mobius in the Middle
On a snowy evening in December, 150 middle school students and parents gathered at the new Mobius Science Center in downtown Spokane. They watched fun/instructive demonstrations, explored Bodies: The Exhibition and had the opportunity to tinker with a variety of technologies and electronics.

Medical Mystery Night @ WSU Spokane
WSU Health Science students provided a wonderful hands-on learning opportunity for 100 5th-8th graders. Students were given four clues and worked throughout the evening to discover why a woman attending a GU basketball game collapsed and had to be rushed to the hospital. Using deductive reasoning students uncovered the cause of her collapse.

Mead School District Annual STEM Night
An estimated 2,000 students, parents and community members attended STEM Night, where they visited with local companies and explored the many STEM courses offered throughout the Mead SD. The evening’s keynote speaker, former NASA astronaut Dottie Metcalf-Lindenburger, shared her journey from teacher to astronaut and inspired students to pursue their dreams.

Mead School District 3rd Annual Bridge Building Competition
More than 250 elementary, middle and high school students participated. Winners are posted on the Mead SD homepage (www.mead334.org). This competition is sponsored by the Washington Structural Engineers Association.

Keynote Speaker Dottie Metcalf-Lindenburger with Addison Edmonson, Owen Edmonson & Savannah Cox
Construction Update
A Message from
Superintendent Tom Rockefeller

I hope you have had the opportunity to drive by Northwood Middle School and see the progress on the new building. Despite the cold and snow, construction is proceeding at a brisk pace! Completion of structural steel support walls and roof structures change the look of the new building daily. Ned Wendle, our Director of Facilities & Planning, frequently expresses how pleased he is with the caliber of work being performed by our contractors. Our target completion date is the end of this calendar year and we fully expect students to be in the new building next January. The old Northwood will then house numerous community programs, provide much needed office space/storage and offer space to address fluctuations in student growth.

As Northwood enters the interior construction phase this spring we will begin work on the Midway Elementary renovation project, which will be completed in phases. The building will be divided into three sections and be remodeled one section at a time. Displaced students will move into temporary on-site housing, moving back inside once their section has been updated. Working closely with the general contractor, we will take all necessary precautions to assure a safe environment for students and staff during construction.

Once work starts on Midway we will finalize the Shiloh Hills design. The Shiloh renovation will begin in the spring of 2018, with completion expected by the end of the 2018-19 school year.

In closing, I want to again extend my sincere thanks to the Mead community for its support in providing our students and staff with these facility upgrades. Mead continues to be a wonderful place to raise and educate children as evidenced by the constant influx of families who choose to live in our district.