

The logo features the word "NASA" in blue, bold, sans-serif capital letters. Below it, the word "HUNCH" is written in large, white, bold, sans-serif capital letters with a blue outline. The text is set against a red, stylized, jagged background shape that resembles a comet or a splash. A small blue horizontal line is positioned below the red shape.

# NASA HUNCH


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# Wyoming Indian High School

We are located on the Wind River Indian Reservation.





The Wind River reservation is made up of 2.2 million acres. It is home to the Eastern Shoshone and the Northern Arapaho tribes.



WIHS has 175 students, grades 9-12. We are located at Ethete, Wyoming.



# How our program was started.

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Wyoming Indian High School started the NASA HUNCH in the school year 2019-2020. Gary Duquette from Jackson Hole High School was instrumental in helping start our program. We were also introduced to the regional NASA HUNCH implementation Project Manager, Florence Gold and Glenn Johnson HUNCH Design Engineer.

# NASA HUNCH at WHIS

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We currently have two HUNCH programs:

- Design and Prototype
- Sewn Flight Articles - Softgoods program

NASA HUNCH is taught as a Physics/Engineering class. It is a year long class, which is attended 5 days a week. The class is offered to 11th and 12th grade students, they can take the class for two years. I average 12-15 students per year and am the only HUNCH teacher in the district.

I was successful in getting this class certified as a Applied Physics class through the Wyoming Education State Department.

[https://docs.google.com/document/d/1rui102k6oZTtPH07iL\\_msaFANXj9iar4YaTrl6NiY6o/edit](https://docs.google.com/document/d/1rui102k6oZTtPH07iL_msaFANXj9iar4YaTrl6NiY6o/edit)

# Grading and Rubrics WIHS NASA HUNCH

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Grading:

- NASA Capstone Elements ( modified rubrics to meet our program requirements )
- Engineering notebook ( students record daily and they are graded weekly )

I also use Proficiency Scales:

<https://docs.google.com/document/d/1osUHOtvB4ttxfgecw1MMGwHuFtG5yp300kZXyP1dAnA/edit>

# Class Format

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- Student groups pick a project for the new selections each year.
- Research and Brainstorm solutions
- I allow each group \$200 and they order items from Amazon. This is taken out of my annual science budget.
- Equipment used:
  - 3D printers (6)
  - CNC engraving machine
  - (new) ProtoMAX waterjet cutting CNC



# Tongs for Lunar Landing



# Unique take on NASA HUNCH projects

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We try and incorporate a Native American culture perspective when solving the problems given to us from NASA HUNCH.

Example from previous projects:

- The use of buckskin solving the lunar shoe project.
- The use of traditional medicinal plants grow in the ag nanolab.
- The use of animal hair for the Lunar dust brush

# Benefits of NASA HUNCH for WIHS students

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- Gives students ownership of their education
  - This starts the process of taking and completing a project that is owned by them.
- Instills creative problem solving skills
- Introduces the learning of the engineering process
- Learning to give presentations to HUNCH representatives
  - The CDR at a regional site further enhances the presentation value
  - My students do not present well when we start the process. I see major growth as the year goes on.
  - This increases the importance of the program, presenting to JSC.