## Rocket Engineering Facilitator: Don Plumlee

## **Newton's Laws of Motion**

Why do your toes sting after kicking a soccer ball? Which laws apply?
What happens to this pencil sitting on the desk? Which laws apply?
What happens to the pencil dropping from my hand? Which laws apply?
How does a rocket move up into the air? Which laws apply?
Draw a Picture
What forces act on the rocket?
What makes a good rocket?
Design Requirements/Metrics
Materials: 2 liter bottle, sticks, scissors, glue gun, masking tape, duct tape, scotch tape, popsicle sticks, tin foil, toothpicks, tagboard, paper, cardboard, straws, markers, ribbon, feathers, clay, baseball, tennis balls, ping pong balls, golf balls, rocks, fabric, wooden dowels
Reflection:
How did you team meet the requirements?
What would you have done differently?