



North Kingstown High School Anchor Assignment Assessment Plan

Department: Science

Name of Course: The Science and Technology of Boatbuilding

“Title” of Anchor Assignment: Building a Spaghetti Boat; A Lesson From Archimedes (Semester 1)

What are students asked to do/create/write/present to complete this assignment?

Students must perform a lab demonstrating the principles of buoyancy and then produce a scientific lab report.

GSE(s) Covered by this Assignment:

Physical Science3 (9-11) POC+ INQ 8

Given information (e.g., graphs, data, diagrams), use the relationships between or among force, mass, velocity, momentum, and acceleration to predict and explain the motion of objects.

PS3 (9-11) - 8

Students demonstrate an understanding of forces and motion by...

8a) Predicting and/or graphing the path of an object in different reference planes and explain how and why (forces) it occurs.

ENG: Written and Oral Communication

W – 12 – 6 *Informational Writing: Reports, Procedures or Persuasive Writing*

In informational writing, students organize ideas/concepts by...6A, 6B, 6C, 6D

NKHS Expectation(s) for Student Learning Covered by this Assignment:

Expectation #6:Problem Solving

The NKHS student shall solve problems, and express those solutions through a variety of mediums.

Problem Solving

Depth of Knowledge (Check one)

_____ **Level 1-** Recall of Information - requires the student to write or recite simple facts. Does not include complex synthesis or analysis, but basic ideas. Level 1 requires students to demonstrate a rote response, perform a well-known algorithm, follow a set procedure (like a recipe), or perform a clearly defined series of steps.

_____ **Level 2-** Basic Reasoning- requires some mental processing, connecting ideas using a simple organizational structure. At this level, students are engaged in first draft writing for a limited number of purposes and audiences; Keywords that generally distinguish a Level 2 item include “classify,” “organize,” “estimate,” “make observations,” “collect and display data,” and “compare data.” These actions imply more than one step.

_____ **Level 3-** Complex Reasoning- requires some higher level mental processing. Students are developing multi-paragraph compositions that may include complex sentence structures or demonstrate some synthesis and analysis. The cognitive demands at Level 3 are complex and abstract. The complexity does not result from the fact that there are multiple answers, a possibility for both Levels 1 and 2, but because the task requires more demanding reasoning.

 X **Level 4-** Extended Reasoning- Higher-level thinking is central to this level. Multi-paragraph compositions demonstrate synthesis and analysis of complex idea or themes and evidence of a deep awareness of purpose and audience. Level 4 activities include designing and conducting experiments; making connections between a finding and related concepts and phenomena; combining and synthesizing ideas into new concepts; and critiquing experimental designs.

Is proficient completion of this assignment required for the e-Portfolio? Yes ___ **X** ___ No _____

How will this anchor assignment be graded and weighed in the overall grading?

This assignment will count as a test grade for the second quarter.

Outline the opportunities for students to revise their work.

Students will have the standard opportunity as stated by North Kingstown High School’s policy for completing and revising any unsatisfactory Anchor Assignment.
