Portfolios must be brought to the Nashua High School South security office on between 8:00 am and 3:00 pm, or prior to that date by appointment only. To schedule a drop off appointment, please contact Mrs. Cheryl Meesig and Dr. Naomi Hall at meesigc@nashua.edu and halln@nashua.edu.

All evidence must be able to fit in a copy paper box (12” x 18” x 10”), but may be submitted in a smaller binder, envelope, or box.
All evidence must be clearly labeled with student and artifact name.
Electronic evidence must be on CD, DVD, or flash drive.

- Electronic evidence must be accompanied by hard copies.
- Electronic evidence should be placed into a labeled manila envelope.

Please remember to keep copies for your records, as portfolios will not be returned.
Submissions will be taken:

- On April 14th from 8 am to 3pm at Nashua High School South.
- By appointment prior to April 14th. Contact Cheryl Meesig and Naomi Hall to set up an appointment.

Portfolios that are incomplete or late will not be scored. If the portfolio meets the above requirement, the portfolio will be assessed using the science competency rubric (Appendix F). A copy of the scored rubric will be returned via parent and student email.

If the student demonstrates proficiency (a “3” or higher) in each of the course competencies a minimum of 4 times, the student will be invited to a 30-60 minute interview with a review panel for their final defense.

The review panel at a minimum will include a building/district administrator, the head science teachers at North and Sou54oarent a TETdeW* nBT/F1 11.04 Tf1 0 0 1 90.024 582.82 Tm0 g0 G[(Su)6(b)3(m2.544(u54o)-5 p)3(aren)3(t)9(reW*

To be completed by student/parent:

Student Name	
Student Email	
Current School	
Future High School	
Parent Name(s)	
Parent Email	
Parent Phone	

These standards have been taken from the NH Science Literacy Curriculum Framework and serve as the basis for the physical science curriculum at the high schools. Each standard should be demonstrated one to two times throughout the portfolio.

Processes and Rates of Change
S:ESS1:8:5.3 Explain the role of differential heating or convection in ocean currents, winds, weather and weather patterns, atmosphere, or climate. [ESS1(5-8)SAE+POC-4]
Stars and Galaxies

Change

S:PS2:8:1.5 Given a real-world example, show that within a system, energy transforms from one form to another (i.e., chemical, heat, electrical, gravitational, light, sound, mechanical). [PS2(5-8)SAE+POC-6]

S:PS2:11:1.5 Explain relationships between and among electric charges, magnetic fields, electromagnetic forces, and atomic particles. [PS2(9-11)SAE-7]

Conservation

S:PS2:8:2.2 Collect data or use data provided to infer or predict that the total amount of mass in a closed system stays the same, regardless of how substances interact (conservation of matter). [PS1(5-8)INQ+SAE-3]

S:PS2:11:2.5 Demonstrate how transformations of energy produce some energy in the form of heat and therefore the efficiency of the system is reduced (chemical, biological, and physical systems). [PS2(9-11)POC+SAE-5]

Energy

S:PS2:8:3.6 Use data to draw conclusions about how heat can be transferred (convection, conduction, radiation). [PS2(5-8)INQ+SAE+POC-7]

S:PS2:11:3.10 Using information provided about chemical changes, draw conclusions about the energy flow in a given chemical reaction (e.g., exothermic reactions, endothermic reactions). [PS2(9-11)INQ+SAE-6]

Forces

S:PS3:8:1.3 Use data to determine or predict the overall (net) effect of multiple forces (e.g., friction, gravitational, magnetic) on the position, speed, and direction of motion of objects. [PS3(5-8)INQ+POC-8]

S:PS3:11:1.8 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)INQ+POC-8]

Motion

S:PS3:11:2.3 Apply the concepts of inertia, motion, and momentum to predict and explain situations involving forces and motion, including stationary objects and collisions. [PS3(9-11)POC-9]

S:PS3:11:2.4 Explain the effects on wavelength and frequency as electromagnetic waves interact with matter (e.g., light diffraction, blue sky). [PS3(9-11)SAE-10]

Students must demonstrate proficiency in each competency a minimum of four times.

1. Solutions: Develop and test proposed solutions to complex problems with no obvious answer.
2. Communication: Speak, read, and write to infer, interpret, draw conclusions, and support arguments in science.
3. Computational Thinking Utilize mathematics and computational thinking to model, analyze, and interpret scientific data and concepts.
4. Patterns: Utilize patterns to connect observable or unobservable phenomena between systems, processes, or objects.

Students should be able to use these eight practices to demonstrate their understanding of the topics covered in physical science. Each practice should be used a minimum of two times.

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data

Artifact Tie

(list standards here) 0.00000912 0 0 0.00000912 0 612 792 re W* n BT /F1 16 Tf 1

S:PS2:8:1.5				
S:PS2:11:1.5				

Develop and test proposed solutions to complex problems with no obvious answer.	The student effectively developed a solution to a complex problem. The student applied the solution to a new and different situation. The student successfully tested the proposed solution to solve a complex problem. The student used their solution to generate further questions or ideas to investigate.	The student effectively developed a solution to a complex problem. The student applied the solution to a new and different situation. The student successfully tested the proposed solution to solve a complex problem.	The student partially developed	

Utilize mathematics and computational thinking to model, analyze, and interpret scientific data and concepts.	The student used math to effectively model, analyze, and interpret scientific data and concepts. The student used their model, analysis, or interpretations to make connections to other situations, the student applied other models to the same situation appropriately.	The student used math to effectively model, analyze, and interpret scientific data and concepts. Mathematical errors are present, but do not take away from the student's demonstration of understanding of content or skills.	The student used math to model, analyze, and interpret scientific data and concepts. Mathematical errors show an inconsistent understanding of the content or skills.	The student made an attempt to use math to model, analyze, and interpret scientific data and concepts. Mathematical errors show that the student does not understand the necessary content or skills.

Utilize patterns to connect