

# **Proficiency-based assessment**

Health and Science School  
(HS2)

# Today's learning targets

- I can describe the goals of proficiency based assessment.
- I can explain the relationship between learning targets, teaching, proficiency, and interventions.

# What is Proficiency-based assessment?

- Measuring progress towards a complete understanding of specific content and skill sets of knowledge
- NOT credit by proficiency only (ex: PE credit for marching band)

# Goals of Proficiency- based assessment

- To Provide clear learning targets for all students
- To Focus on specific, in-depth content and skills
- To Separate behavior from the assessment of learning

# Learning targets

- Proficiency Based Assessment Starts with Clearly Stated Learning Targets

<b>ALGEBRA I</b>				
1. I can determine the best mathematical model for a data set by making a scatter plot and using a graphing calculator.	3	2	1	N
2. I can use a graphing calculator to do linear and quadratic regression and determine which is the best model.	3	2	1	N
3. I can create a graph, table and algebraic equation for a linear function when provided a few characteristics.	3	2	1	N
4. I can add, subtract, & multiply positive & negative numbers without a calculator & explain the rules for each operation.	3	2	1	N
5. I can solve a linear equation for the given variable.	3	2	1	N
<b>ALGEBRA II</b>				
1. I can create mathematical models from a data set, determine the best model, and justify my thinking.	3	2	1	N
2. I can use a graphing calculator to create a scatter plot, mathematical models, and graph the models on the scatter plot.	3	2	1	N
3. I can represent a function as a table, graph, & an algebraic equation & move from one form to another using the context of the information provided.	3	2	1	N
4. I can multiply polynomial expressions and simplify.	3	2	1	N
5. I can solve a quadratic equation by factoring.	3	2	1	N
6. I can describe the characteristics of a linear, quadratic, cubic, and quartic function, i.e. find the y-intercept, the number of maximums and minimums, the possible number of x-intercepts, and the end behavior.	3	2	1	N
<b>BIOLOGY</b>				
1. I can explain the connection between form and function in viral structure.	3	2	1	N
2. I can describe the role RNA/DNA plays in the cell cycle.	3	2	1	N
3. I can describe the components of the immune system and vaccines and how these work to fight disease.	3	2	1	N
4. I can explain the mechanisms of genetic change that lead to viral evolution.	3	2	1	N
5. I can demonstrate the correct way to use electrophoresis equipment to study genetic differences among viruses.	3	2	1	N
6. I can analyze electrophoresis results to compare unknown viruses.	3	2	1	N

# Learning Targets

- Refined and modified through a peer review process
- Organized Into Table Format & Connections Across Discipline are Identified
- Worded as "I can" statements to increase student ownership
- Provided to students and parents at the beginning of each trimester

# Teaching to Proficiency

- Learning Targets are Clearly Posted in Class at the Beginning of Each Trimester
- Learning Targets are Identified on Individual Assignments
- Daily learning targets connect Each Day's Activity to a Specific Learning Target

# Assessment of Proficiency

- Rubrics are Provided Prior to formal Assessments

## Analysis of Electrophoresis Results (LT 6) – Generic Rubric

**I can analyze electrophoresis results to compare unknown viruses.**

1 = Profiles are very incomplete or missing. There is not way to tell two electrophoresis gels apart.

Summary comparison of the results is missing or unclear; makes no reference to the profiles created.

2 = Profiles are incomplete, include minimal details, gels can be compared but are difficult to tell apart.

Summary comparison attempts to describe differences between gel results but does not refer to profiles or refers to them only minimally.

3 = Profile of each electrophoresis result includes enough detail to make it possible to tell them apart easily.

Summary comparison of the results is clear; uses details from the profiles to describe the differences and similarities between the viruses.

# Assessment of Proficiency

- Multiple Opportunities to Show Proficiency are Provided

Sample Assessment Set for Tri 1 LT 6 "I can analyze electrophoresis results to compare unknown viruses."

Assessment #1: Electrophoresis & Identification of Unknown Viruses Worksheet

Assessment #2: Comparing Unknown Flu Virus

Assessment #3: Electrophoresis Report

Alternative Assessment 1: Intensives Electrophoresis Result Analysis

Alternative Assessment 2: Revisiting Electrophoresis II

# Grade Reporting

Each class develops 5-7 learning targets per grading period (trimester). Using these targets, we will assess each student using a proficiency-based 3-point system with the points equating to:

Level	Description
One	Students at this level have a beginning or basic understanding of a complex body of knowledge or concept.
Two	More detailed level of understanding of knowledge and facts, but not fully proficient in the learning target concepts and skills. Students at this level show inconsistent demonstration of mastery.
Three	Students meet or exceed the learning target. Performance at this level indicates the use of application, justification, and synthesis.

To convert these proficiencies into a traditional letter grade for your report cards, we have the following system:

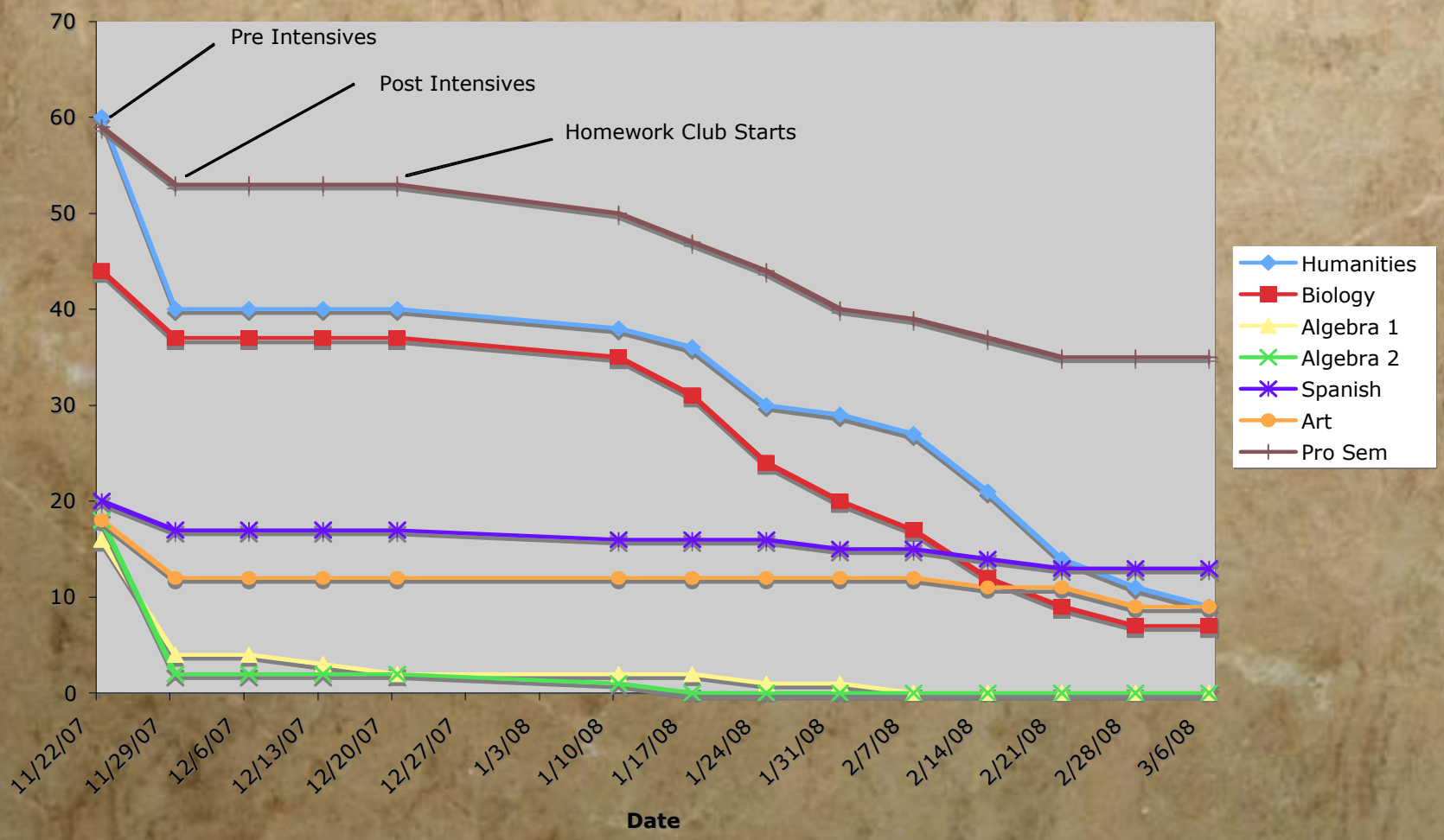
Grade	Description
A	To achieve an "A" for a marking period, a student must earn 3s on all learning targets for a given class.
B	To achieve a "B" for the marking period, a student must receive no 1's and at least two 3's for every one 2.
C	To achieve a "C" for the marking period, a student must have a majority of marks be a "3" and no ones "1"
I	"Incomplete" reflects missing work and/or work that is below expectations for this grade level and this course.

# How Proficiency Based Assessment Sets Up Interventions

- Limited Number of Targets Allows for a Focus on Re-Teaching
- Interventions are directly targeted to a proficiency gap and not vague performance measures

# Results So Far

## Proficiency Recovery Trimester 1



# Challenges of Proficiency Based Assessment

- Late Work
- Behavior
- Record keeping
- Conversion to traditional Letter Grades and reporting
- Communication to community

# Current conversations at HS2 About Proficiency

- Content vs. Skills
- Number of Opportunities
- Behavior Rubric
- Transition to new staff