



"NOT ONLY DO WE LIVE AMONG THE STARS, THE STARS LIVE WITHIN US" – N.D. TYSON

Physics with Mr. Bryant

SYLLABUS

Welcome to Physics!

What is physics anyway??

Physicists study all the fundamental and basic parts of the physical world including: motion, forces, gravity, momentum, energy, waves, electricity, magnetism, and atomic & sub-atomic matter.

A short list of guidelines for class:

- ➔ **Share air/screen time equitably.** Know yourself, balance your listening and talking.
- ➔ **Value differences.** Remember that your perspective is not the only one and that we all face different challenges.
- ➔ **Argue using evidence.** Back up what you have to say with data.
- ➔ **Make sure everyone feels safe.** How can we support others?
- ➔ **Discomfort is okay.** Identify your learning edge and push it.
- ➔ **Own your impact.** Your intentions may not be the same as your impact. Positivity & respect are critical especially when we don't have in-person cues.
- ➔ **Create community.** Acknowledge others and don't isolate anyone.



THE BIG PICTURE

I want you to **do well** in this course,
to **feel supported** while you are here,
to approach the class **without fear**,
and to leave it **without regret**.



A Modeling Classroom

I'll be using a modeling method of instruction that is not only new to me, it's likely new to you! What does that mean for us?

Generally, we'll start a new unit with a lab and then through a combination of small and large group discussions we will develop a physics "model" to help us understand what we observe. Once we have an agreed-upon model, I will guide you in deploying and refining the model in new lab investigations and puzzles.

Perhaps the most different part of this method is that the teacher rarely provides answers, but instead asks guiding questions. Modeling instruction is a way of teaching that I'm excited to try and I hope that we all grow by engaging in it!

<https://www.modelinginstruction.org/sample-page/for-parents-students/>

Contact Information

matthew.bryant2@warren.kyschools.us

(Don't forget the "2!")

<http://www.mrbryant.net>

What to expect...

Topics

1st Quarter: Motion, Forces, & Gravity

2nd Quarter: Energy, Momentum,
Waves, Electromagnetism

Assessing Your Performance

In this class you'll be assessed with a version of standards-based assessment (SBA or SBG). Even if you've never encountered SBA before, I bet you're going to love it!

SBA Highlights for us:

- Points for grades, nope.
- Standards assessed on multiple quizzes & tests, yep.
- Most recent assessment on standard in Infinite Campus.
- Student ownership of learning
- Able to improve to mastery on each standard.
- Increases transparency in grading
- Replaces 100 levels with just 5 (79% vs 80% really?!)
- Less grading → More Feedback
- Emphasizes *learning over grading*

Standards-based assessment may seem very different to you, but we'll work

together to make sure everyone understands course expectations and practices. My goal is to help each of you reach proficiency on the standards and be transparent along the way.

Of course, SWHS does require me to submit a letter grade for each student, but we can still do that in a way that more accurately reflects your learning. Take a look at the example standard and level guide below. My plan is to have around 15 standards per quarter, and I'll use the numbers associated with the level guide to help determine a letter grade in Infinite Campus.

CONSIDERING THE PANDEMIC

Whether in-person or remote learning, we'll use [Google Classroom](#) and associated software. This will allow us easier transitions and provide less physical contact with objects that must be sanitized. If we are in-person, then students will be expected to wear facial coverings in class and maintain physical distancing as much as possible.

When life happens... let me know, whether it's an illness for you or a loved one, internet issues, anxiety, stress about an upcoming deadline, or perhaps celebrating a win, success, or family event. If I can help make accommodations to assist, lend an ear, or celebrate with you—I'd love to do so.



Sample Lab Standard 1. I can design and communicate my data collection methods with well explained, labeled diagrams and words, distinguishing between independent, dependent, and controlled variables.

- I can create an experiment in which only two variables at a time are changing.
- I can communicate the process of conducting that experiment with a combination of words & diagrams.
- I can identify which variables are not changing, and of the variables that are changing which one I am manipulating. I can name which variable is the independent and which is the dependent.

Standard Level	Abbreviation	Description
Mastery	Ma	Accomplished demonstration of all relevant sub-skills. Errors, if any, are merely cosmetic. (10)
Proficiency	Pr	Good demonstration of sub-skills. Only a few small errors or omissions are present. (8.5)
Nearing Proficiency	Np	Developing demonstration of several sub-skills, but multiple and/or significant errors or omissions are present. (7.5)
Just starting	Js	Beginning demonstration of some sub-skills. Significant conceptual errors or omissions may be present. (6.5)
Insufficient Evidence	IE	No attempt made yet or work shows no understanding of this objective. (5)

This document represents my best attempt to chart our course through the semester together. However, conditions have changed since I last passed through here; we may have to take detours, make alternate arrangements, or otherwise revise our plans.

More to come...What questions do you have?

matthew.bryant2@warren.kyschools.us