

# **Giving Student-Friendly Standards-Based Feedback**

Python, Spreadsheets, and YouTube

**[bit.ly/friendlyfeedbackworkshopny2016](http://bit.ly/friendlyfeedbackworkshopny2016)**

Joe Kremer & STEMteachersNYC

## **Standards-Based Feedback:** Focusing students' attention on the areas where they can improve.

**Skill Feedback:** Use feedback on each skill to learn from your mistakes.

☐

**1a** I can identify the independent and dependent variables of an investigation, as well as any controlled variables, and identify a relationship between two variables if it exists.

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**1b** I can graph data on graph paper, making sure that my axes are labeled and scaled appropriately and the graph has a useful title.

☐

**2b** I always use correct units when working with numerical values.

# This can get complicated as the class progresses:

**Skill Feedback:** Look through the feedback you get, skill by skill. For any Ps or Xs, use the rubrics and videos for each skill to help you master each skill by correcting this test.

☐

**1b** I can graph data on graph paper, making sure that my axes are labeled & scaled appropriately and the graph has a useful title.

☐

**2b** I always use correct units when working with numerical values.

☐

**2d** I use algebra correctly when solving problems, first writing a general form then substituting specific values.

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**2e** I use a reasonable number of decimal places, and write answers as a decimal not a fraction.

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**2f** I can create a linear trend line by hand to show a pattern in a set of data. I can calculate the value of the slope & intercept of this line.

☐

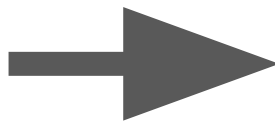
**2g** If the slope of a trend line has physical meaning, I can write a "slope statement" expressing the meaning of that slope.

☐

**2h** I can construct an algebraic model from a linear trend line and use it to make predictions.

**Today's Objective:** Use technology to efficiently translate feedback into a form where students can use it easily.

◇	A	C	D	E
1	Period 1			IV
2	Annie	1.00	1.00	3.00
3	Bernard	3.53	3.50	3.60
4	Charlie	1.17	1.10	1.00
5	Dorothy	0.67	0.60	2.00
6	Emma	1.17	1.10	1.00
7	Fiona	2.50	2.50	3.00
8	George	3.40	3.40	3.20
9	Harold	1.73	1.70	2.00



Annie ,

Your classwork grade for last week was 1.0 . This is an average of three grades, listed below:

Wednesday: IV and DV worksheet: 3.0

Thursday: Ball Bounce Data: 0.0

Friday: Graph Discussion: Absent

Think about how you spent your time and who you chose to sit with on each particular day. Pay SPECIAL attention to the days where you got a 2.5 or below. Think about who was in your group and how you could have spent your time better.

## Three Components:

- A.** Use the **Python** programming language to “scrape” a spreadsheet to turn numbers/codes into a paragraph that students can easily interpret.
- B.** Use a spreadsheet to turn standards-based feedback into a number/letter for use with “traditional” grading schemes.
- C.** Use targeted “Skill Review” YouTube videos to support students who are struggling with certain skills.

# A. Use Python to Scrape Excel Spreadsheets

```
# -*- coding: utf-8 -*-

import xlrd
formatting_info=False
book = xlrd.open_workbook("PersonalFeedbackSample.xlsx")
sh = book.sheet_by_index(0)

n = 1

name = sh.cell_value(rowx=n, colx=1)

while n<150:

    name = sh.cell_value(rowx=n, colx=1)

    print name, ",", "\n"

    if sh.cell_value(rowx=n, colx=5) < 1.0:

        print "On the Third Quarter IA, your total score was entered"

    if sh.cell_value(rowx=n, colx=5) >= 1.0:

        print "On the Third Quarter IA, your total score was",int(sh.

    if sh.cell_value(rowx=n, colx=5) >= 3.6:

        print "Nice work!! We're getting close to the end of the year"
```

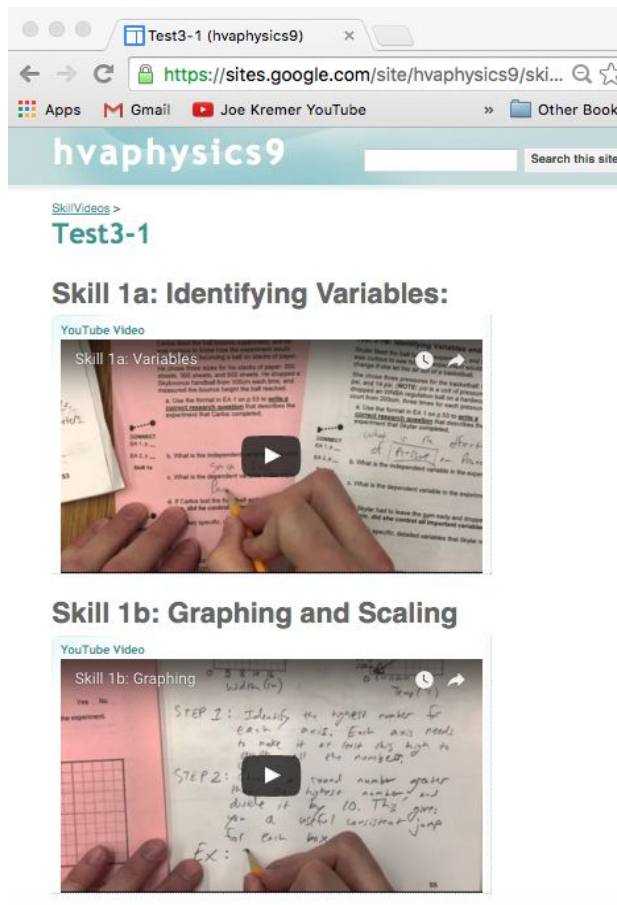
1. Learn / review basic Python programming
2. Browse/debug sample code
3. Practice coding for your own data.

## B. Turn standards-based feedback into a “traditional” number or letter grade.

Test 1				F	C	B	A-	A				2a	2b	2c	2d
				X	P	PM	M	MM							
NAME				0	5	7	9	10							
										EC					
Period 1										/4.0					
Alvin	3.6	A-		0	0	0	5	0	3.6		m	m	m	m	
Bob	2.8	B		0	0	5	0	0	2.8		pm	pm	pm	pm	
Carl	2.0	C		0	5	0	0	0	2.0		p	p	p	p	
Dorothy	4.0	A		0	0	0	0	5	4.0		mm	mm	mm	mm	
Evelyn	0.0	F		5	0	0	0	0	0.0		x	x	x	x	

1. Look through the spreadsheet I use for “skill based test grades”
2. Make and modify an assessment/ spreadsheet for your own use.

## C. Practice making targeted “Skill Review” YouTube videos to support these skills.



The screenshot shows a web browser window with the address bar displaying <https://sites.google.com/site/hvaphysics9/ski...>. The page title is "Test3-1 (hvaphysics9)". The main content area is titled "Test3-1" and "Skill 1a: Identifying Variables:". Below this, there is a "YouTube Video" player showing a video titled "Skill 1a: Variables". The video content shows a person's hands writing on a piece of paper with a yellow pencil. The paper has a list of questions and a table. The questions are: "1. What is the independent variable?", "2. What is the dependent variable?", "3. If Carlos had not jumped, what would have happened?", and "4. What is the independent variable in the experiment?". The table has columns for "Time (s)" and "Height (m)". The video player has a play button in the center.

**Skill 1a: Identifying Variables:**

YouTube Video

**Skill 1b: Graphing and Scaling**

YouTube Video

**Skill 1b: Graphing**

The video content shows a person's hands writing on a piece of paper with a yellow pencil. The paper has a grid and a list of steps: "STEP 1: Identify the highest number for each axis. Each axis needs a unit. If you are high to the number, the number is the highest number you can use. If you are low to the number, the number is the lowest number you can use." and "STEP 2: Round the number you have to the nearest 10. This gives you a useful consistent jump for each axis." The video player has a play button in the center.

1. Browse examples of feedback on two ninth grade physics tests, and corresponding skill videos.
2. Practice *grouping* similar skills for a test on **algebraic models** & outline the content of AT MOST 3 different Skill-Review videos.

# ***VIRTUAL WHITEBOARDING***

**[bit.ly/friendlyfeedbackworkshopny2016](http://bit.ly/friendlyfeedbackworkshopny2016)**

**Share your work in THIS doc w/  
descriptions, links, Google Docs**

*Think of these sections like virtual whiteboarding. Describe your successes and failures. Include your name or email address if you'd like others to be able to contact you in the future.*