

TEACHING & LEARNING IN THE 21ST CENTURY

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New Challenges

- ❑ Global Competition
- ❑ Global Interdependence
- ❑ Workplace Innovation
- ❑ Ubiquitous Information
- ❑ Digital Lifestyle



Harnessing Our Digital World

- ❑ Web 2.0 Tools
- ❑ User-Created Content
- ❑ Mobility 24/7 Access
- ❑ Social Interactions for Learning

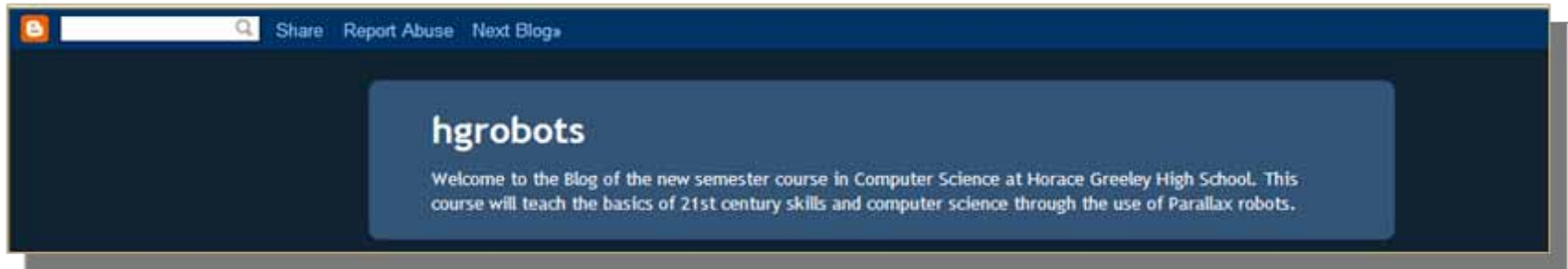


Developing an Understanding of the Transformative Potential of Web Technologies

Chappaqua's Research & Development Team

- Studying the opportunities for learning afforded by Web 2.0 tools

Blogger



➔ HTML Blog Post addition to Project

Hi Everyone,

As we're working on our HTML project, I've noticed a lot of you using tags and options that we have not reviewed in class. Please respond to this post with some of your tags and what they do!

Example

```
< color="#hhffcc" size="+2"> Text < /font >
```

This will change the color of your text and increase the size relative to the set size by your browser.

Make sure that you put a space after the <> so that the blog doesn't interpret it as code and actually format your code.

-J. Block

Posted by Josh Block at [10:34 AM](#)

[15 comments](#)

➔ Reflection on the first quarter of Robots

Hi Everyone,

I would like you all to comment on the first quarter of our Robotics class. Please comment on the use of Web 2.0 in the class, use of robots in the class, how much you've learned about computer science, and how much you've learned about programming and engineering. As usual, feel free to comment on other classmates responses.

Points: 30 points

5 points - comment on web 2.0

5 points - comment on robotics

5 points - comment on computer science

5 points - comment on computer programming and engineering.

10 points - general reflection on class.

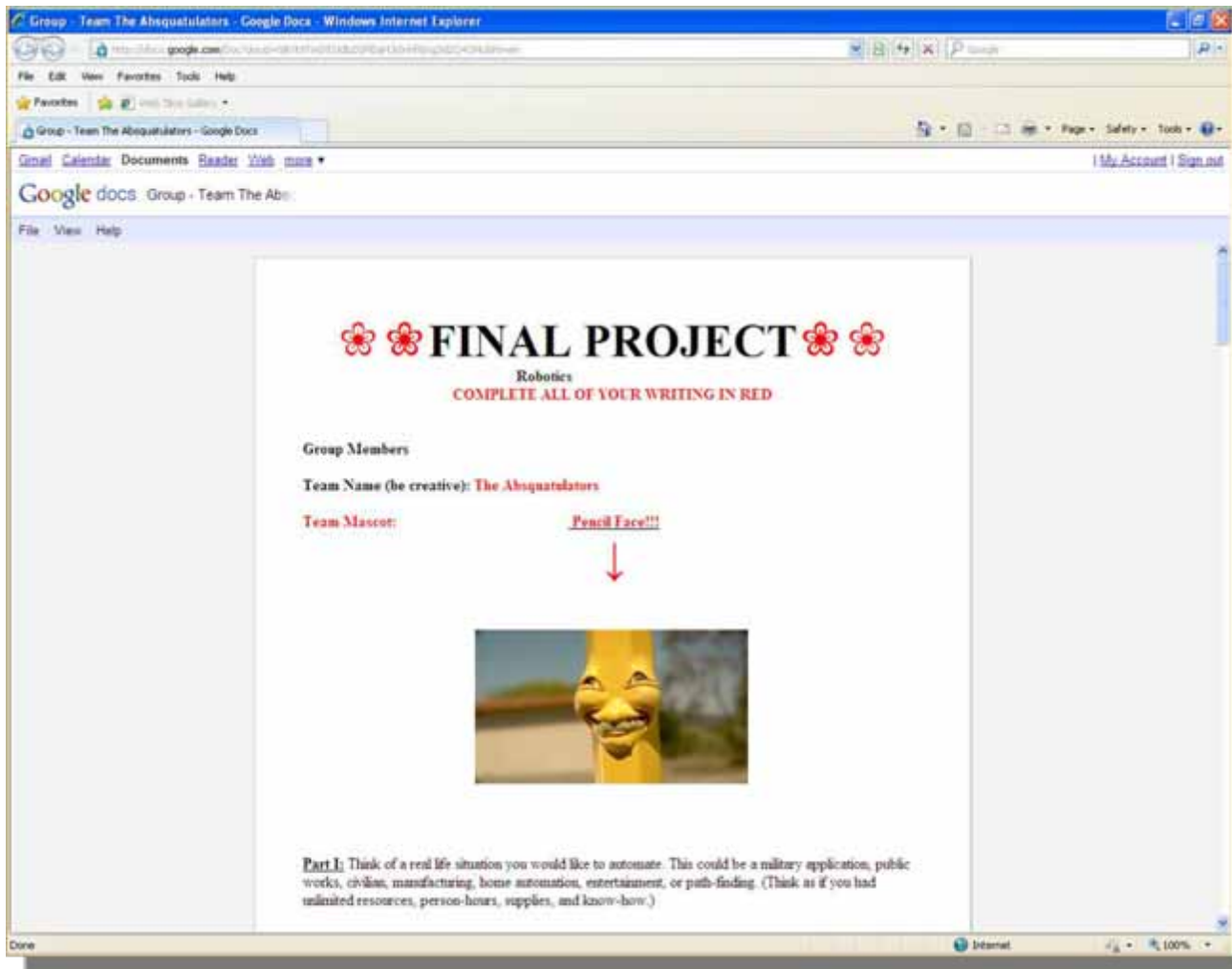
This assignment is due on Monday evening.

-Josh Block

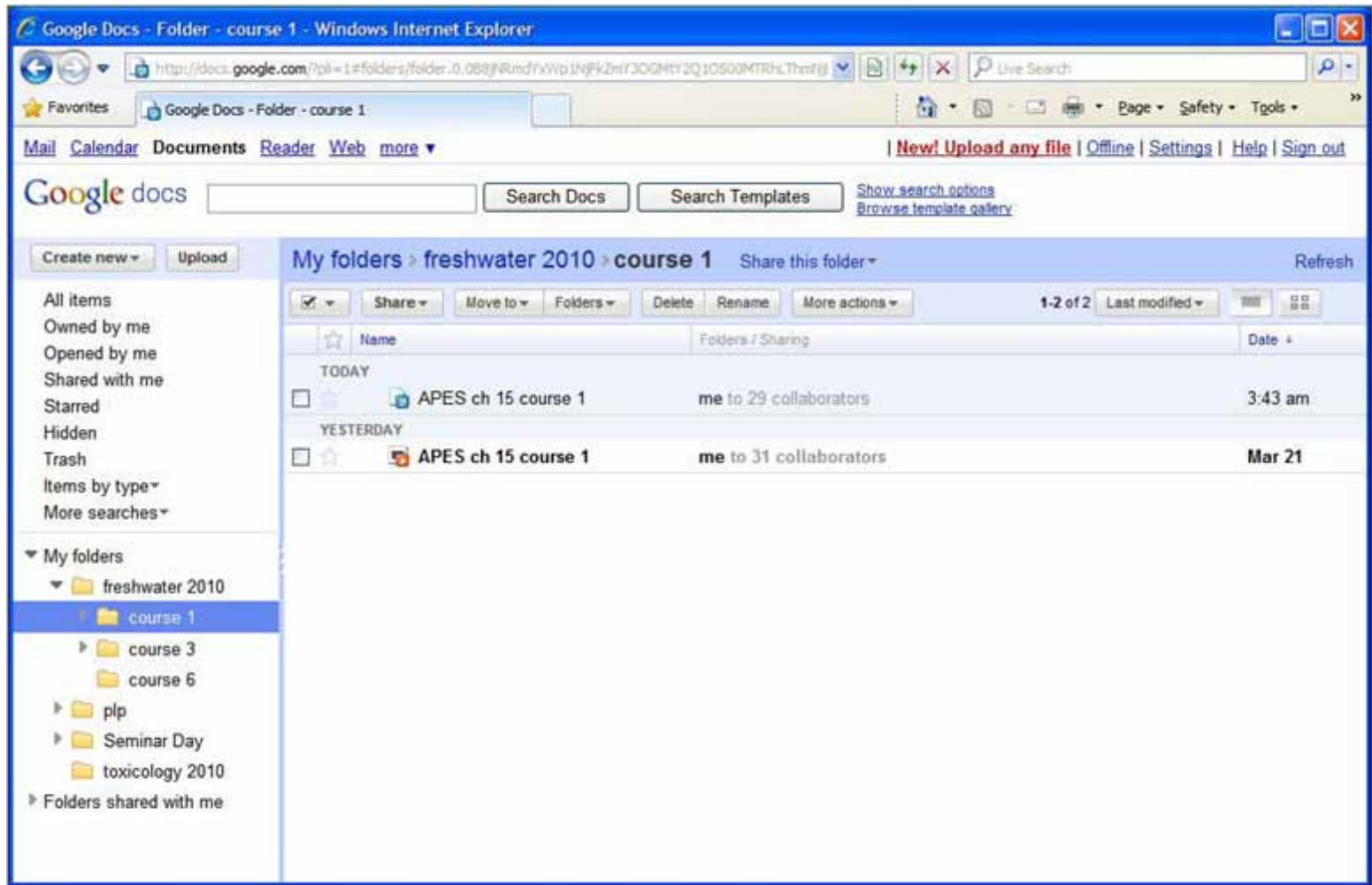
Posted by Josh Block at [3:02 PM](#)

[26 comments](#)


Google Docs






Google Docs



Blackboard





Home Help Logout

Blackboard 7

Courses

Announcements

Course Documents

Assignments

Communication

External Links

Tools

Communication

Course Tools

Course Map


Control Panel

Refresh


Detail View

PHYSICS (FABIANCHIO) > ASSIGNMENTS

EDIT VIEW



Assignments




Tires and Coefficients of Friction - due Friday 12/4

Read the article comparing summer, winter, and all-season tires at
<http://www.insideline.com/features/tire-test-all-season-vs-snow-vs-summer.html>
Each of the three tires was compared for accelerating and braking effectiveness in snow, rain and on dry road. Using the data for braking distances only (the acceleration data is incomplete), calculate the coefficient of static friction for each tire for each road surface (nine values in all.)

1. Your answer should start with a few sentences explaining how you will calculate the coefficients, showing the general mathematical solution.

2. Then create a table with all the data from the article that you need to solve the problem, as well as with the coefficients of friction you calculated for each case. Don't forget to convert the data to SI units. Google will do it for you - for example, type "120ft to m" or "2500lbs to kg" or "50mph to m/s", without the quotes.

3. Finally write a few sentences evaluating your results. What are the most dangerous combinations of tire and road surface that you would want to avoid? In this area, is it worth buying separate summer and winter tires and changing them with the seasons, or more sensible to just drive on all-season tires all year?



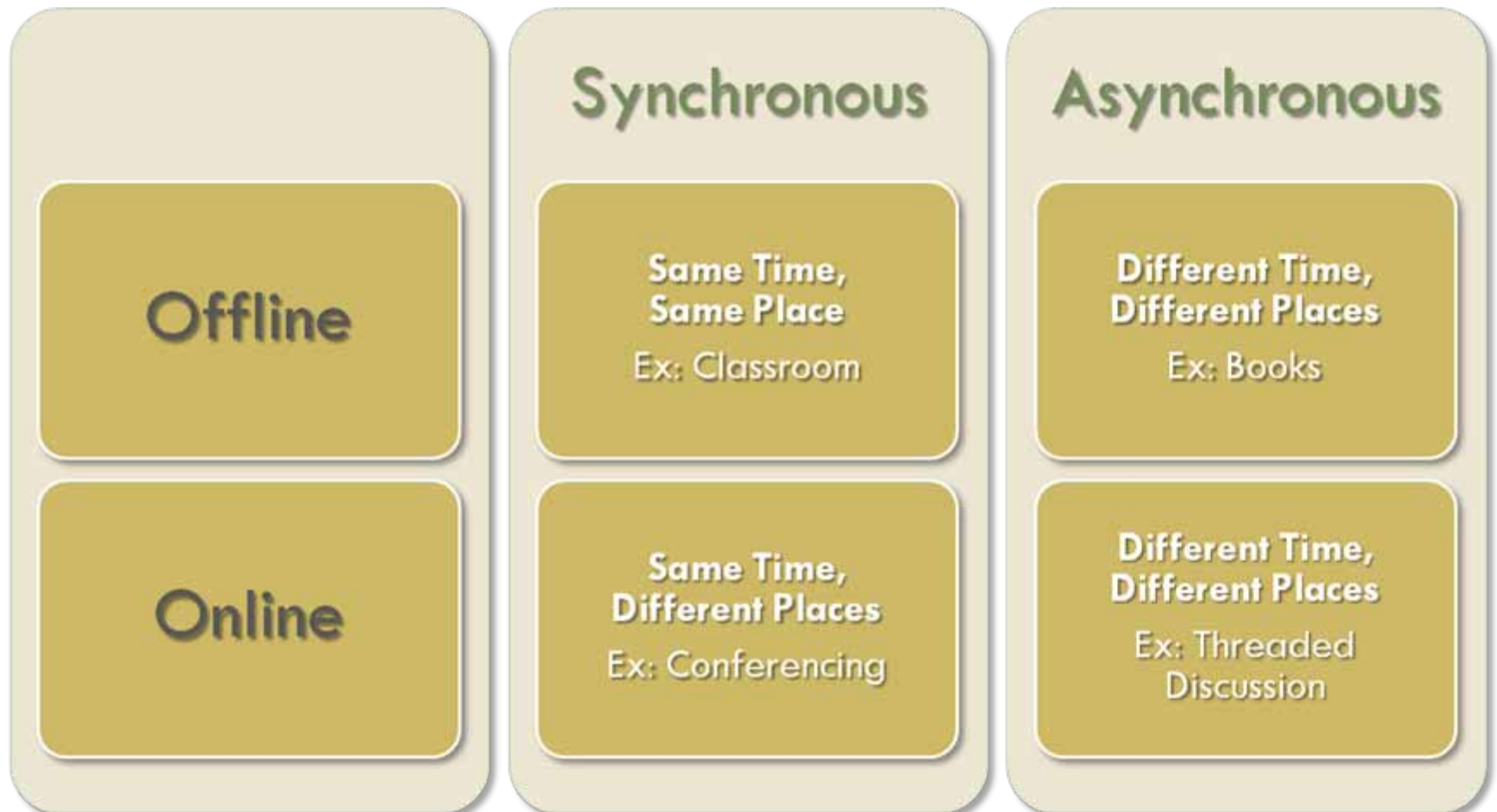
The Economist Essay: Progress

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Components of Blended Learning Environments



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- Studying the opportunities for learning afforded by Web 2.0 tools
 - ▣ Learning through networked-connected technologies
- Collecting/analyzing survey data
- Studying through Action Research

Classroom Action Research

Computer Science/Mathematics

- ❑ De-emphasis on the classroom as a place for disseminating information
- ❑ Emphasis on online collaboration, information research, and course management
- ❑ Teacher as facilitator of learning

Classroom Action Research

A.P. Environmental Science and Chemistry

- Emphasis on deepening the level of student discourse – both online and in the classroom
 - ▣ Create an online resource center
 - ▣ Create asynchronous discussion boards
 - ▣ Create a knowledge community

Classroom Action Research

Physics

- Emphasis on how the classroom can change as a result of embedding online work outside of class
 - ▣ Notes and assignments available online
 - ▣ Moderated online discussion forum for homework
 - ▣ Class time spent less on lecture and homework review, more on topic development and project work

Next Steps

- Research & Development Team – Year 2
- Work collaboratively with other districts to examine best practices in online learning
- Explore online opportunities for staff to learn new software applications

