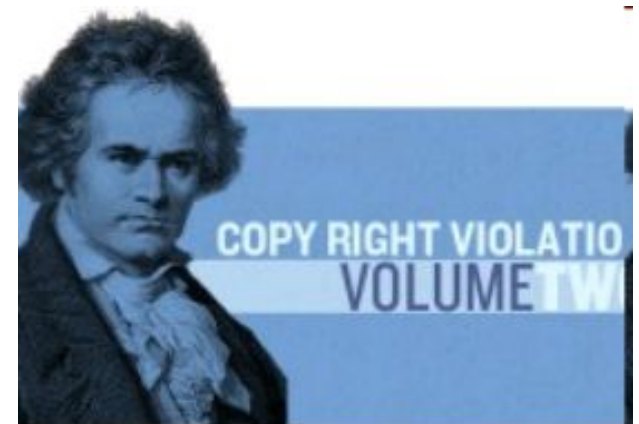# Nuts and Bolts of Project Based Learning

Successful Projects…

- ❑ Arise from a meaningful question
- ❑ Take time
- ❑ Require investigation
- ❑ Are semi-structured, requiring substantial student input
- ❑ Follow a timeline with articulated milestones to be reached along the way
- ❑ Require a tangible end product

• Successful Projects, cont….

- ❑ Include presentation for a real audience
- ❑ Include moments of reflection
- ❑ Blur subject area boundaries— emphasize issues, skills, concepts
- ❑ Blur line between "slow" and "fast" learners
- ❑ Create a culture of accomplishment
- ❑ Connect students with adult mentors
- ❑ Conceive of teachers as "coaches/ facilitators" and students as "colleagues"

Project Planning Sheet

- Begin with the end in mind
- Create your Essential Questions
- Plan the Assessment: Products, Artifacts and Criteria
- Map the Project (--the day to day)
- Identify materials needed
- Differentiation
- Reflection

- Assessing Projects

  – Assessment starts on Day One
  – Develop criteria (standards) from models
  – Co-construct assessment with students
  – Include presentation for a real audience
  – Include moments of reflection
  – Collegial pedagogy → mutual vulnerability
  – Assessment looks at the project design, too!

Essential Question
Who Owns Assessment?

- ## What and How to Assess

- ## <u>Content</u>
  - Mid and Final Products (individual slice)
  - Quiz or exam
  - Student reflection
  - Other ??? (Expert consultants?)
  - Note: Look for "knowing transformation" of content

- ## <u>Process</u>
  - Observation
  - Work logs
  - Evidence of drafting, revision, participation in critique, etc.
  - Other ???

- ## What and How to Assess

- ## <u>Skills</u>
  - Observation
  - Product analysis
  - Performance
  - Student reflection/testimony
  - Other ???

- ## <u>Surprises</u>
  - Observation
  - Student reflection/testimony
  - What's "off the grid?"

- Caveat!!

- <u>No Group Grades!!</u>

- (Group product, individual accountability)

- Balances to strike (always):
  - Content, process, skills
  - Achievement, growth
 - Other ???

Begin With The End In Mind

- What do you ENVISION?
  - Think IDEAL here
  - Try to avoid "This won't work because…"
  - We can find solutions to problems later!

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Create Your Essential Questions

- This is the class' focal point
  - What should everyone UNDERSTAND as a result of completing this project?
- Example: How clean/safe is our water?

What is your Product?
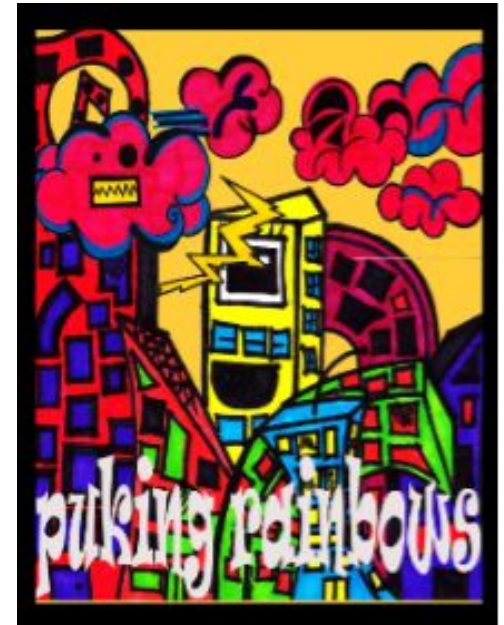
- What will the students produce?
- When will they produce them?
- You need multiple deadlines and critique sessions

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Product:Criteria

•Not just what students will do, but HOW WELL it should be done
•Rubrics
•Show samples of beautiful work

MAP The Project

- Backwards Design
  - Begin with the end in mind
  - How can you make sure every student is successful

MAP The Project –
Build Your Calendar

•How long will your skill/concept lessons take?
•What does your schedule look like: pull outs, holidays, testing…
- Have several critique sessions!
- Make final products due one week before exhibitions

Identify Materials Needed

- Uber-important, but sometimes neglected
- Has been the downfall of many a project
- Take your time make a list, go shopping
- Organize for student accessibility

Differentiation

- Are there entry points for all?
- Build in supports for struggling students
- Challenge work--how do you push students to work deeper?

Reflection

•Take the time for student reflection-look at, think about, discuss final products

•Student self-assessment, What am I proud of? How can I do improve?

•Take the time for teacher reflection-look at, think about, discuss final products