

Problem-Based Learning

A teacher has 30 students in his classroom. He is teaching a unit on the importance of how to research.

Constraints:

- Have one week to get the lesson in
- Lesson must be engaging
- Should be choice in the lesson
- Have to assess mastery somehow

Plan this lesson

Lesson Plan

Topic: __Research skills_____

Learning Goal(s): _____

Other Skills Learned:

-
-
-
-
-
-
-

How will you break the lesson into a...

Beginning: _____

Middle: _____

End: _____

What materials will be needed for the lesson? _____

How will you assess mastery of what was taught? _____

Steps to Problem-Based Learning

- 1) Present the problem
- 2) List what is known
- 3) Develop a problem statement
- 4) List what is needed
- 5) List actions, solutions, or hypothesis
- 6) Present and support the solution

INTEROFFICE MEMORANDUM

FROM: The Gifted Guy

SUBJECT: How do you learn something you've always wanted to learn?

DATE: 9/27/18

PURPOSE

You must create a passion project that represents something you have always wanted to learn about but have not had the opportunity to do so.

QUESTIONS TO PONDER

- What is something you have always wanted to learn?
- Why have you always wanted to learn about this particular topic?
- How would be the most meaningful way to learn about this?

RECOMMENDATION

Product: you must come up with an exhibition that shows the culmination of your learning. This will be in a public forum so you must be able to show someone what you learned, why you learned it, and how you went about learning it.

You have choices in what form this exhibition takes. Some suggestions might be:

- Poster
- Presentation
- Demonstration
- Social gathering
- Website

ADVICE

1. Pick an idea you are madly curious about, want to learn more about, and/or want to share with the world.
2. You should pick something a little out of your comfort zone. Don't pick something you already know how to do well. Choose something that will allow you to grow and learn as a person.
3. You must choose something that can be learned in 4 weeks time. Don't bite off more than you can chew or pick something overly ambitious, but at the same time it must be something that would take a four week period to learn.

Project Contract

Student Name: _____

Project Name: _____

Estimated Time of Project: _____

Learning Objectives (have at least three):

Skills Learned:

-
-
-
-
-

Overall Goal of Project: _____

Product of Project: _____

How will you measure mastery of your learning objectives: _____

Steps to a project

1. Define the problem
2. Develop solution options
3. Plan the project
4. Execute the plan
5. Monitor and control progress
6. Close project

Case-Based Learning

Tom is an 8th grade teacher who decides for his lesson on rocks and minerals, he is going to have the students work in groups. He puts them into groups of 5 students and does this alphabetically until he has 6 groups.

He decides he is going to have them research about different types of rocks and minerals and to learn the three types; metamorphic, igneous, and sedimentary. After a couple of days of researching, Tom gets the following email.

Mr. Thomas, my son is not getting along with his group.

After researching, each group must create a poster that defines the three different types of rocks and minerals. Each group is provided with a piece of posterboard and a package of markers.

A couple of days into this, Tom gets a phone call from another parent. The gist of the conversation is that this parent's daughter is complaining that she is having to do all of the work and that there are members of her group who are not doing anything.

Finally, there is a presentation aspect where students have to find an example of a metamorphic, igneous, and sedimentary rock around their neighborhood and explain how they know which type of rock or mineral it is. For one of the presentations, the group has an igneous example and a metamorphic one, but when prompted for the sedimentary, one of the group members shrugs his shoulders and Tom marks the rubric accordingly.

The lesson is graded using a rubric. Tom checks the appropriate boxes, tallies a holistic letter grade, and gives it back to the group before moving on to the next lesson.

Analyze this case and determine several strategies that could be used to make this lesson better.

Steps to Case-Based Learning

1. Case is established
2. Case is analyzed by the student or group
3. Brainstorm solutions
4. Formulate learning objectives
5. Dissemination of new findings
6. Share results
7. Reflect