

Integrated Project-based Learning: Combining PTE Standards and Academic Standards

Use this template for planning and sharing ideas for projects. This template is based on the 6 A's:

Authenticity Academic Rigor* Applied Learning* Active Exploration* Adult Connections* Assessment*

Project

Title of Project	“Stick It To Me”
Project Developed by	Shirley Hubbard//Becky Gummerson
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School	Cassia Regional Technical Center//Burley High School
Pathway / Small Learning Community/Academy	Health Professions/Mathematics
Course Title(s)	Medical Assistant//Geometry
Time Frame	1-3 hours (2-80 Minute classes)

Authenticity

Briefly describe your project. Include the key question and provide an overview of what students do and learn. Tell why the question is meaningful to the students and where one might see a similar question tackled by an adult in the workplace.

Key Question	The importance of delivering the correct medication, and dosage to the correct patient?
Overview	The students will work in teams of 2 and will be able to perform mathematical calculations and accurately read medication orders and labels to help assure that clients will receive the correct dosages and strengths of the prescribed medications as ordered. Handle a 3 mL syringe by drawing liquid medication. (No Needle will be used and H2O as medication.) And use physical worksheet practice.

Vocabulary/Key Terms

List vocabulary words and key terms essential to student understanding.

Prescription, Medication, Medication Label, Syringe,, Parenteral, Ratio, Proportion, Metric System,

Active Exploration * Applied Learning * Adult Connections

What classroom-based, community-based, and career-based activities does the project involve? Include a description of the active exploration, applied learning, and adult connections in the project (as needed).

Active Exploration *How does the project engage students in real investigations using a variety of methods, media and sources? What field-based work will students perform? How does student learning and service support active career exploration?* Students will examine real models of homes. Math will explain scaled units in architecture. They will have lessons on home construction and the building codes for bids. How knowledge is used in industry?

Applied Learning *How do students apply what they have learned and researched to a complex problem (e.g. designing a product, improving a system, creating an exhibit, organizing an event)?* Lecture on industry usage of this concept i.e. model designs. Application with their own proportions also will be explored along with industry standards.

Adult Connections *Who from the community, workplace, postsecondary and/or industry partnership works with students on the project?* Lecture from local industry and community in home design.

Classroom Activities

INTRO; Discuss information on student handout packet on reading med labels, understanding dosages, syringe reading and practical application.

DATA COLLECTION; Working as partners, the students will read med labels, med dosages, use syringes using ratios described on handout as a measurement techniques and utilizing worksheets and scenarios of physical activity. Then enter on a practical worksheet.

COMPARISON:

Each student will then compare their findings with the rest of the class and answer sheets.

Community Activities

Volunteer or job shadow in doctor offices, health clinics, and Home Health to assist medical personnel or mentors in med application.

Set up a Booth at local Health Fairs to inform clients of importance of taking meds as prescribed

Career Activities

Pursue postsecondary courses in the medical arena.

Academic/PTE Rigor

Standards *Use the space below to list the state content standards and PTE industry standards addressed by the project. (A list of the content standards is available at <http://www.sde.idaho.gov/ContentStandards/default.asp>. This page, which includes selected high school level standards, is designed to let you easily create a list of standards you are addressing. You may then copy and paste the list into this template.)*

Academic/PTE Rigor

IDAHO STATE MATIMATICAL STANDARDS:

Geometry: Standard 2: Concepts of Principles of Measurement

GOAL: 2.1 Understand measurable attributes of objects and the units, systems, and processes of measurement.

GOAL 2.2: Apply techniques. tools, and formulas to determine measurements.

OBJECT GOAL; Understand and use formulas to calculate the perimeter, circumference, area, and surface area, and volume of geometric figures.

SKILL STATEMENT;A- Determine the volume of a cylinder.

PTEHEALTH PROFESSIONS STANDARDS:

MEDICAL ASSISTANT;

17.0 Perform Math Computations both manually and electrically.

STUDENT WILL BE ABLE TO;

17.10: Solve Problems using proportions and ratios.

17.11: Solve Problems using systems of measurement and conversions.

17.04: Interpret charts, graphs, and tables

17.08: Solve Problems using Metric Units.

School to Career Competencies *Please check (x) the competencies addressed by the project*

- Communicate and understand ideas and information
- Collect, analyze and organize information
- Identify and solve problems
- Use technology
- Initiate and complete entire activities
- Act professionally
- Interact with others
- Understand all aspects of an industry
- Take responsibility for career and life choices

Student Goal(s) Once the project begins, ask students to generate one or two personal goals.

Read Medication Label Read a Prescription Read a Syringe Calculate Medication Dosages
Administering Intend Dosages per Skin or Muscle.(Practice with no needle .attached to the syringe.)

Assessment

How do you and the students know the project is a success? What are your criteria for measuring students' achievement of the disciplinary knowledge and applied learning goals of the project? What evidence do they use to demonstrate their progress? What deliverables do they need to complete prior to the final exhibition? How will students self-assess?

Academic/PTE Rigor

Verbally and manually identify and demonstrate the concept of dosage calculation and delivery along with utilizing the student handouts

Recommended Resources / Sample Products

Software or Materials Needed
(Examples)

Medication Labels, H2O, Syringes, Paper, Pencils Text Books of Math for Health Professions.

Teacher-Developed Materials
(Examples of materials that can be shared with other classes. Please attach samples.)

Student Handout Packet

Student-Developed Materials
(Examples of products that can be shared with other classes. Please attach samples.)

Student Handout Packet

Websites Used
(Examples)

Final Words
(In a sentence or two, highlight your project's overall value.)

Competency and or understanding of medication, labels and medication application.

Teacher Tips/Extensions
(Use the first person to share a useful idea that helps with implementation and ensures success. Make it chatty, informal.)

Colored water used in syringes and help the students in overcoming the fear of meds and needles.

Extensions
(List any ideas for students who may want to go deeper into the learning standards.)

Students can attend a medication class at the next level with actual medication application.

Timeline

What sequence of teaching and learning experiences will equip students to develop and demonstrate the PTE standards and the Academic standards?

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(Adapted from the Boston Public Schools Signature Projects.)

DATA COLLECTON EVALUATION AND DISPLAY;

Compare the results of each part of the project to determine if the appropriate standards listed are met.