

WAMC Lab Template

Math Concept(s):

Source / Text:

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Attach the following documents:

- Lab Instructions
- Student Handout(s)
- Rubric and/or Assessment Tool

Short Description (Be sure to include where in your instruction this lab takes place):

The students will work in Below this template I copied and pasted all lab instruction and procedures.

Lab Plan

Lab Title: Bathroom Remodel

Prerequisite skills: Cost per units, budgeting, measuring, research inquiry, and comparison shopping.

Lab objective: Students will be able to work in groups and compromise a layout for a bathroom. They will be able to determine what materials and how much they need to purchase. The students will then create a scaled image on graph paper.

Standards: (Note SPECIFIC relationship to Science, Technology, and/or Engineering)

Mathematics K–12 Learning Standards:

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Standards for Mathematical Practice:

- G-MG.3 Apply geometric methods to solve design problems

K-12 Learning Standards-ELA (Reading, Writing, Speaking & Listening):

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K-12 Science Standards

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Technology

-

Engineering

-

Leadership/21st Century Skills:

21st Century Interdisciplinary themes (Check those that apply to the above activity.)

- | | | |
|---|--|---|
| <input type="checkbox"/> Global Awareness | <input checked="" type="checkbox"/> Financial/Economic/Business/Entrepreneurial Literacy | <input type="checkbox"/> Civic Literacy |
| <input type="checkbox"/> Health/Safety Literacy | <input type="checkbox"/> Environmental Literacy | |

21st Century Skills (Check those that students will demonstrate in the above activity.)

LEARNING AND INNOVATION

Creativity and Innovation

- Think Creatively
- Work Creatively with Others

INFORMATION, MEDIA & TECHNOLOGY SKILLS

Information Literacy

- Access and Evaluate Information

LIFE & CAREER SKILLS

Flexibility and Adaptability

- Adapt to Change
- Be Flexible

Productivity and

Accountability

- Manage Projects
- Produce Results

- Implement Innovations
- Critical Thinking and Problem Solving
- Reason Effectively
- Use Systems Thinking
- Make Judgments and Decisions
- Solve Problems
- Communication and Collaboration
- Communicate Clearly
- Collaborate with Others

- Use and manage Information
- Media Literacy
- Analyze Media
- Create Media Products
- Information, Communications and Technology (ICT Literacy)
- Apply Technology Effectively

- Initiative and Self-Direction
- Manage Goals and Time
- Work Independently
- Be Self-Directed Learners
- Social and Cross-Cultural
- Interact Effectively with Others
- Work Effectively in Diverse Teams

- Leadership and Responsibility
- Guide and Lead Others
- Be Responsible to Others

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Procedure:

1. Teacher will put students into groups of 4-5. Each group needs one person to fill the following roles:
 - Project manager
 - Taper (might need help from another person so if you have 5 in your group then two people should be here)
 - Scribe
 - Quality Assurance

2. Each group should have the following:
 - a. Roll of painters tape
 - b. Clipboard to write on
 - c. One of the following: ruler, tape measure, yard stick, piece of computer paper, a shoe about a foot long
 - d. Pencils
 - e. Calculator
 - f. Smartphone

3. In your groups you need to come up with an ideal and realistic bathroom with a double sink vanity. You need to tape the perimeter of your bathroom. You need to plan for the tub, toilet, and vanity. Mark each outline with blue painters tape. The quality assurance and project manager roles should have smartphones, and they will also be doing some research on HomeDepot and Lowes website to determine sizing of vanity and tubs. After they have finalized their tape floorplan they need to take a picture with their phone and upload it to a Google Doc. The scribe then needs to draw the bathroom on a piece of graph paper. They will need to create a scale. 1 Square=6 inches or 1 Square = 4 inches. As long as they keep the scale consistent I don't really care. From their they will need share the document and to go to Google Sheets and share a blank sheet to start budgeting and start pricing everything. Vanity, toilet, sink, wax ring, paint, flooring, towel racks, lighting, silicone, any other special materials from the installation guide. Example: If they decide they want tile, then they need to buy hardiebacker and hardiebacker screws and mastic and grout. The students will need to determine how much square footage is needed for materials. Walls and ceiling for paint and flooring. They might have to buy extra that will be left overs depending on how the material is packaged and sold. Each group member needs to make a copy of the final project and turn it in on Google Classroom.

Teacher Preparation: (What materials and set-up are required for this lab?)

Materials

-

Set-Up Required:

-

Lab Organization Strategies:

Leadership (Connect to 21st Century Skills selected):

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Cooperative Learning:

-

Expectations:

-

Timeline:

-

Post Lab Follow-Up/Conclusions:

Discuss real world application of learning from lab

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Career Applications

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Optional or Extension Activities

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