



STEM Activity: Budget Planning

Type of Teacher Tool: Whole Class- Groups

Targeted Grade Level(s): 9-12

Targeted Curriculum Areas: Community; Mathematics

Learning Objectives:

The learner will:

1. practice precision in budget planning and calculations.
2. increase their understanding of emergency planning and the costs ensued.
3. demonstrate ability to make decisions in regard to budget planning.

Featured National Standards

1. CCSS.ELA-LITERACY.RH.9-10.7

Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.

2. CCSS.ELA-LITERACY.RH.9-10.1

Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.

3. CCSS.MATH.CONTENT.HSN.Q.A.1

Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

4. CCSS.MATH.CONTENT.HSN.Q.A.2

Define appropriate quantities for the purpose of descriptive modeling.

5. CCSS.MATH.CONTENT.HSN.Q.A.3

Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

Resources/Materials Needed:

1. Infrastructure 2: Economics of a City's Infrastructure
2. Infrastructure 5: Fighting Fires 2010-1
3. Infrastructure 6: Fighting Fires 2010-2
4. Point to Point 13: What is it like to be an Emergency Medical Service Professional
5. Internet and calculator

Teacher Instructions:

1. Divide class into 3 planning groups for emergency services (fire, police, and emergency medical).
2. Pick a size for your town. Keep in mind that smaller numbers have fewer variables, so a population of 10 – 25 thousand is a good figure.
3. Have students look up information to model their town off of. (i.e. number of firemen, salaries, cost to maintain firetruck etc.). Remind students that they should consider costs of gas, vehicle maintenance, uniforms etc.
4. Have students come up with a basic budget to fund their particular department of emergency services.
5. Find budget data from an actual town or city of similar size to compare with the data from step 2.
6. As a follow up to their work or for use as additional information while they work, select any of the Educate.Today videos above for viewing.

Assessment/Evaluation Option:

1. Have students write a short report with their findings that compare budgets and analyze deficits in their planning project. (i.e. did they consider gas expenses)