4th Grade's Tiny House & New Beginnings Community

Driving Question: How can we, as philanthropists, engineer a tiny house and create a community development to provide a new beginning for the homeless population?

Content: Students are going to establish a tiny home and community for the homeless. After researching the different causes and effects of homelessness, they will individually engineer a 3D model of a tiny home. Then in teams as "developers", they will plan a community with services and/or resources to help the homeless population. Proposed communities will be presented to volunteers as investors. This PBL unit focuses on real-world problems, while incorporating 21st century skills and mathematical practices.

Standards:

Mathematics:
- CCSS.MATH.CONTENT.4.MD.A.3: Apply the area and perimeter formulas for rectangles in real world and mathematical problems.
- CCSS.MATH.CONTENT.4.G.A.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- CCSS.MATH.CONTENT.4.MD.A.1: Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.
- CCSS.MATH.CONTENT.4.NBT.B.4: Fluently add and subtract multi-digit whole numbers using the standard algorithm.

English Language Arts:
- CCSS.ELA.W.4.1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
  - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.
  - b. Provide reasons that are supported by facts and details.
  - c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
  - d. Provide a concluding statement or section related to the opinion presented.

Major Products:
- **Individual:** A 3D model of a fully furnished Tiny Home.
- **Group:** A plan and map for a community to help the homeless population find new beginnings.

Making It Public: The groups will present their development proposals to the class and their potential "investors".