Preparation:
- If Scouts choose to build a model of a campsite, you can plan to take the measurements on a camping trip. This would be a great opportunity to encourage Scouts to think about how they can improve their campsite.
- Some other options for this project include community places like historical landmarks, or a building like a fire station, a library or a school.

The Activity:
- If you see that the Scouts are missing some important measurements, you can guide them by asking questions like “Do you think you can model the room with these? Are there any other dimensions or measurements that you need?”
- If the dimensions of the site are too big for Scouts to measure, they need to learn the “distance computer” method in advance. For this, they should be asked to research the method beforehand at home, or you should have a computer and internet connection available at your meeting place to review the method from: usscouts.org/scoutcraft/dc/
- Make sure you help the Scouts in figuring out what tools they might need for building the model with their chosen materials. You can have some general tools and materials on hand in case some unexpected problems come up. This will help move things forward faster in the building process.
- If Scouts decide to design a campsite and build a scale model for that, make sure to encourage them to use their experiences at different camps as a guide and try to find design solutions for problems they faced.

Review:
- Encourage Scouts to think about how they can take their project a step further. Options include:
  - Using computer software to create 3D computer models
  - Find a 3D printer in the community and print a model
  - Come up with ideas to improve on the design of the object they made the model of.

Online Resources:
- You might be able to find publicly available 3D printers in the “Maker Spaces” in your community. Search for “Maker Space” or “Maker Lab” or visit this website: www.thingtanklab.com/makerpassport/canadian-maker-spaces
- Here you can find a free software that Scouts can use to create 3D computer models: www.sketchup.com
- For a list of commonly used materials in professional model making visit: www.design-skills.org/model_making.html

Suggested Timeline:
Specific timing of each step depends on the project. You will probably need two meetings: one to collect the measurements and one to build the model.