

Design Solutions

(3-week activity)

Requires fifteen to nineteen 45-minute class periods

Note: Allowing students to 3-D print each design solution might increase the time required, but it is the preferred method to use.

Teacher

1 Class

- Review the Presentation 1 *PowerPoint* file.
- Insert the video into the appropriate *PowerPoint* slide.
- Lead a discussion to introduce the unit, using the Presentation 1 *PowerPoint*.
- Distribute the Design Logbook.

Students

- View the *PowerPoint* presentation.
- Discuss the information presented in the *PowerPoint* slides.
- Complete the activities on the Day 1 pages in the Design Logbook.

Teacher

1 Class

- Provide a link to the introduction video.
- Provide access to the *Tinkercad* software.
 - Install *Tinkercad* on student computers.
 - Provide a link to the online version.
 - Provide access to the iPad version.
- Provide access to the video tutorials.

Students

(Work in teams of two.)

- View the *Adding and Sizing Solids* video tutorial.
- Practice the techniques shown in the video about creating objects.
- View the *Moving and Snapping* video tutorial.
- Practice the techniques shown in the video about moving objects and snapping to objects.

Teacher

1 Class

- Provide access to the *Tinkercad* software.
- Provide access to the video tutorials.

Students

(Work in teams of two.)

- View the *Grouping and Combining Shapes* video tutorial.
- Practice the techniques shown in the video about grouping objects.