

Lesson Plan

3D Printer Designs

Book: *All About 3D Printing*

Series: Cutting-Edge Technology

Level: Navigator

Objective

To help students identify how images contribute to a text, as well as helping them make effective image and layout choices when explaining a technical process.

Supplies

- *All About 3D Printing*
- Computer access for each student
- Drawing paper
- Colored pencils, markers, or crayons

Before the Activity

Read through the *All About 3D Printing* book, or assign it to students to read on their own. Give each student a blank sheet of drawing paper.

Activity

Show students the “How It Works” spread on pp. 16–17 of *All About 3D Printing*. Using the following questions, have students compare this spread to the paragraph describing filament printers on p. 15.

1. What information appears in both the paragraph and the “How It Works” spread?
2. What information is found only in the “How It Works” spread?
3. What do the pictures help you understand about each step in the process?
4. What would you not know about the process without the pictures?
5. Are there any parts of the process that are not shown in the pictures?

Now ask the students to create their own “How It Works” spreads. Each student should choose one of the three other types of 3D printers described in Chapter 2 (“How 3D Printers Work”). They should make a spread that describes how that kind of 3D printer works. The students should split the printing process into five steps. They should include a picture for each step. They can draw these pictures, or they can find photos online and print them out. Remind students to put the steps in an order that is easy to follow and to create a layout that is easy to read.

Evaluation

Give the students 2 points for each step they describe accurately and 1 point for including a picture with each step.

Standards

This lesson may be used to address the Common Core State Standards' reading informational texts standards, grade 4 (RI 4.3; RI 4.7).