Teacher instructions for career activity (after segment 6)

- Ask students to break into groups of 10 students each (to simulate a group of 10 people with science careers, all working together to discover a new cancer treatment).
- Print out one copy of each the following two slides, and give each group the two worksheets.
- Ask the students to cut out the 10 career descriptions into strips, and have each student take one strip of paper.
- Ask each group to reconstruct these 10 paper strips into one complete story of how new cancer treatments are discovered, by pasting the 10 descriptions in the correct order, in the large empty box on their worksheet.
- Once the students have ordered the strips correctly (the answers are on the last page of this file), the students will fill in the other two columns of the chart to answer the following questions:
  - What is the name/title of the career that matches each description?
  - Where would each person work (hospital, bio lab, chem lab, office, etc)?

Instructions: Cut out the 10 career descriptions below into 10 individual strips. Then place them in the correct order that these people would work together, to discover a new cancer treatment.

Then, I make hundreds & thousands of different chemical compounds.

Then, I test the potential drug on cancer patients, and I determine how well it works.

Next, I write reports on how well the drug works, so as to make sure that other scientists, companies and doctors learn about the drug and its uses.

Then, I make a lot more of each of the one chemical compound that worked best, from all those in the large experiment.

Next, I analyze the data obtained from testing thousands of chemical compounds, to determine which one worked best, from all those in the large experiment.

I meet the patient and identify the disease.

Then, I make many analogs (versions) of the best chemical compound so far, to figure out which analog is most potent.

Next, I help the scientists to patent their new drug, so as to protect the information they have discovered from being used by other drug companies, for the first several years it is in use.

To save scientists lots of time, I automatically test different chemical compounds, to see how they affect cells/proteins taken from patients with the disease.

Next, I test the potential drug in models for the disease (such as cells growing in a dish, or small organisms like fruitflies or mice).

Paste in the 10 career descriptions below, in the correct order that these people would work together, to discover a new cancer treatment.	What is the name/title of the career that matches each description?	Where would each person work (hospital, bio lab, chem lab, office, etc)?

Answers to the science career activity

Paper strips in the correct order:	Title of each career:
I meet the patient and identify the disease.	Oncologist (cancer doctor)
Then, I make hundreds & thousands of different chemical compounds.	Synthetic chemist
To save scientists lots of time, I automatically test different chemical compounds, to see how they affect cells/proteins taken from patients with the disease.	Big Yellow Robot
Next, I analyze the data obtained from testing thousands of chemical compounds, to determine which one worked best, from all those in the large experiment.	Computational biologist
Then, I make a lot more of each of the one chemical compound that worked best, from all those in the large experiment.	Synthetic chemist
Then, I make many analogs (versions) of the best chemical compound so far, to figure out which analog is most potent.	Medicinal chemist
Next, I test the potential drug in models for the disease (such as cells growing in a dish, or small organisms like fruitflies or mice).	Experimental Biologist
Then, I test the potential drug on cancer patients, and I determine how well it works.	Clinical Trials Manager
Next, I help the scientists to patent their new drug, so as to protect the information they have discovered from being used by other drug companies, for the first several years it is in use.	Patent lawyer
Next, I write reports on how well the drug works, so as to make sure that other scientists, companies and doctors learn about the drug and its uses.	Scientific writer