

STUDENT ACTIVATION



Senior Scientist

Medtronic has a rich history in medical technology and innovation. They have created or improved therapies to treat more than 70 medical conditions at the therapeutic, procedural, and system levels. **Senior scientists**, like Dr. Kimberly Chaffin, lead these efforts through development and research. She is working to advance new technologies across all parts of the business, and she is a recognized expert for her research on the role of **material thermodynamics**.

SENIOR SCIENTIST¹

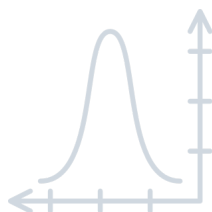
Senior scientists are research professionals who are usually seen as leaders within their organizations. They usually manage teams of other scientists and collaborate with other departments like marketing, sales, development, and engineering.

Thermodynamics

The relationship between heat, work, temperature, and energy. The laws of thermodynamics describe whether a system can work in its given environment.

IS SENIOR SCIENTIST A GOOD CAREER FOR ME?

Me	Senior Scientist
I enjoy researching and reporting on new topics.	Senior scientists are professional researchers.
I like working in groups.	Senior scientists are collaborative.
I have a curious mind. I like to predict and solve big problems.	Senior scientists are skilled at solving complex problems.
I like working with others, teaching them new things, and helping them reach their goals.	Senior scientists are excellent leaders.
I am interested in school subjects like biology, chemistry, and technology.	Senior scientists work in lab sciences, engineering, and medical technology.



¹ <https://bit.ly/3l1fwMg>

Senior Scientist

STUDENT ACTIVATION (CONTINUED)



How does this career help me?	How does this career help the world?
<p>If anyone in your family has ever experienced a chronic or critical illness or suffered a severe injury, they have likely benefited from the work of a senior scientist. When a person is treated using the latest or most innovative medical technology, it is the result of a senior's scientists' research and development.</p>	<p>With the entire world living through the effects of the COVID-19 pandemic, the minute-by-minute work of senior medical scientists is suddenly apparent by the general population. Previously hidden in labs, these vital professionals are now the heroes discovering and developing the innovations that will help the world recover.</p>

What are some related careers?
<p>Physicians and surgeons are medical professionals who diagnose and treat illnesses and injuries, and assist in health maintenance. They often benefit from the research of senior scientists or utilize the innovative medical technology they develop.</p> <p>Research scientists conduct research in the fields of the natural sciences, medical science, environmental science, computer science, or behavioral sciences. They make hypotheses, collect and analyze data, and interpret results to answer questions.</p> <p>Biomedical engineers combine principles of mechanical engineering with knowledge and experience in biology. Their goal is to discover how these two disciplines can be used together to improve people's lives.</p>

Here are ways to practice the skills to be a successful **senior scientist**:

- Meet with your guidance counselor to review your class schedule and course choices. Figure out where you can fit in lab sciences, anatomy or medical tech classes, engineering experiences, or technology courses.
- Seek out leadership positions in your classes, on your teams, in clubs or church groups, or in your community. Practice positive collaboration and communication, active listening, and responsiveness to your team. Solicit feedback on your performance.
- Look for a position as a research assistant. Pay attention to the habits and procedures that professional researchers employ.

