

Bring the science and engineering in *Superhuman Body* to life in your classroom with STEELS Standards aligned lesson plans. The educator guide includes interdisciplinary connections, differentiation opportunities, and hands-on learning for students K-12.

### 3<sup>rd</sup>-5<sup>th</sup> Grades

#### T-Cell Receptor Puzzle

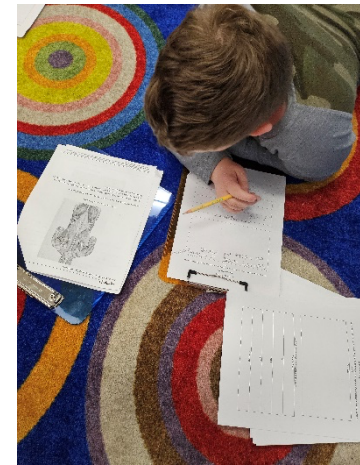
Students explore immune cells and how to stay healthy by playing a Germ Invaders game and creating a puzzle that shows how T-Cells lock on to infections.

#### Heart Stations

Students rotate through stations integrating English Language Arts, math, and physical education to as they learn about the human heart.

#### Prosthetic Possibilities

Using the Engineering Design Process, students explore how engineers design technology to meet specific accessibility needs.



### 6<sup>th</sup>-8<sup>th</sup> Grades

#### Building Immunity

Students explore how the body responds to infected cells, invading bacteria and cancer cells. Using communication, teamwork and engineering design principles they'll craft a killer immune cell that fits to a specific antigen on an invader cell.

#### Pump It Up

Using a simple model of the heart that they create, students experiment with the function of the heart chambers and valves to circulate blood.

#### Universal Design Challenge

Students are encouraged to see their community with new eyes as they design assistive technology or new products to help a chef with a limb difference.



### 9<sup>th</sup>-12<sup>th</sup> Grades

### Optimal Optics

Using a pinhole camera they construct, students learn about focal length, its impact on the image created, and the brain's role in vision.

### Clear It Out: Stent Design

Using design and engineering principles, students build a stent prototype to clear plaque from clogged arteries.

### Accessible Engineering

Students re-design a product or design an assistive device to help an athlete with a limb difference.

Educator Guide STEELS Standards Connections				
		3.1 Life Science	3.2 Physical Science	3.5 Technology and Engineering
3 <sup>rd</sup> -5 <sup>th</sup>	T-Cell Receptor Puzzle	3.1.4.A		
	Heart Stations	3.1.4.A		
	Prosthetic Possibilities			3.5.3-5.U, 3.53-5M
6 <sup>th</sup> -8 <sup>th</sup>	Building Immunity	3.1.6-8.C		
	Pump It Up	3.1.6-8.C		
	Universal Design Challenge			3.5.6-8.W (ETS)
9 <sup>th</sup> -12 <sup>th</sup>	Optimal Optics		3.2.9-12.X	

	Clear It Out: Stent Design			3.5.9-12.DD
	Accessible Engineering			3.5.9-12.I (ETS)