

# Super STEM Movies...Vol. 4

## **Arrival**

PG-13, 2016, 116 min

Ideas for Projects: Language & communication, physics, spacecraft, codes & patterns, personal protective equipment, antigravity, canary in a cage, sound waves, audio vs. visual, heptapods

Top Scenes: 41:54-43:30 Help me understand how to learn a language

Big Question: If you could see your life, start to finish, would you change things?

Further Study: Study the history of language and communication (both spoken and written).

## **Gifted Hands**

Not rated, 2009, 86 min

Ideas for Projects: Neuroscience, classical music & concentration, twins, surgical techniques, life support systems, vision & glasses, literacy, imagination, depression, geology

Top Scenes: 28:28-31:07 Learning unlocked, 1:16:11-1:17:10 Preparation for the surgery

Big Question: Ben Carson's mom said, "You can do anything anybody else can do, only you can do it better." What can you do "better" than anyone else? What do you want to do "better" than others?"

Further Study: Read the book Gifted Hands by Ben Carson & investigate neurosurgery.

## **The Goonies**

PG, 1985, 114 min

Ideas for Projects: Contraptions, asthma, Rube Goldberg machines, zip lines, archaeology, piracy, plasma balls, maps, bicycles, booby traps, plumbing, counterfeiting, waterfalls, ships, balances

Top Scenes: 7:36-9:02 Opening the door machine, 1:09:47-1:11:42 The key & the trap & falling

Big Question: Can you build a Rube Goldberg machine? Is it possible to make a Rube Goldberg machine that makes a task easier instead of more difficult?

Further Study: Learn about Rube Goldberg and how he invented his machines

## **I, Robot**

PG-13, 2004, 115 min

Ideas for Projects: Robotics, ethics, artificial intelligence, dreams, prosthetics, holograms, smart homes, driverless vehicles

Top Scenes: 1:05:40-1:08:06 The "Save the Girl vs Save Me" dilemma

Big Question: Is it a good idea to develop robots to "serve" humans?

Further Study: Read about the advances in artificial intelligence and the ethics of technology.

## **Spiderman Homecoming**

PG-13, 2017, 133 min

Ideas for Projects: Spider webs, heads up display technology, weapons technology, shop classes, tracking devices, superhero suit design

Top Scenes: 12:13-13:41 Being a student & a superhero

Big Question: If you could design a superhero, what powers would you give them? Would a world filled with superheroes still have problems?

Further Study: Study the creation, structure, and substance of spider webs for different types of spiders.

Note: Movies are written, directed, & produced to tell a story and make money, not to be used as an educational resource. Every movie should be previewed for content that may be inappropriate for your kids.

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