Super STEM Movies...Vol. 5

Chicken Run

G 2000, 95 min

<u>Ideas for Projects</u>: Claymation, stop motion, chickens, blueprints, disguises, tunnels, profit & loss, egg production, catapults, flight, machinery & automation, thrust & propulsion, engineering, gears, ramps <u>Top Scenes</u>: 16:26-18:05 Fences in your mind, 50:02-54:13 Pie machine, 1:03:01-1:06:10 & 1:06:56-1:13:55 Building, flying, & escaping

<u>Big Question</u>: Is it possible to build a flying machine using recycled parts? How would it work? Further Study: Learn more about clay animation and try making your own short film using stop motion

Chitty Chitty Bang Bang

G, 1968, 145 min

<u>Ideas for Projects</u>: Automobiles, inventions, windmills, rockets, gears & machinery, vacuum cleaner, candy making, flutes, repurposing, sandcastles, zeppelins, flying machines, toy making, imagination <u>Top Scenes</u>: 47:52-52:40 Making the car, 2:04:45-2:10:01 The dancing 'toys'

<u>Big Question</u>: Using your imagination is important for invention. What inventions can you imagine? Further Study: Study the history of the first automobiles. What worked and what didn't?

Meet the Robinsons

G, 2007, 95 min

<u>Ideas for Projects</u>: Inventing, adoption, sleep, journaling, brain science, memories, science fairs, failure, flying vehicles, time travel, robots, teamwork

<u>Top Scenes</u>: 4:10-4:31 The need for everything, 1:16:13-1:17:49 What is your future, 1:26:44-1:27:51 Keep moving forward

Big Question: What is the purpose of inventing? Why do people invent?

Further Study: Study the history of inventions. Were there times or conditions that led to more inventing?

Space Camp

PG, 1986, 107 min

<u>Ideas for Projects</u>: John Glenn, jets, biplanes, JPL (Jet Propulsion Laboratory), simulators, robotics, EVA, Space Shuttle, effort & caring, thermal curtain failure, oxygen, Daedelus, Morse Code, Coordinates, White Sands, re-entry angle

<u>Top Scenes</u>: 19:20-21:37 Max fixes Jinx, 21:38-24:48 roles in space, 1:30:08-1:33:16 NASA hears them <u>Big Question</u>: What would you do if you accidentally launched into space with 5 people you just met? <u>Further Study</u>: Try to find a space camp or museum near you, or create your own experience at your school or in your community to introduce others to space careers. Learn more at spacecamp.com

Sneakers

PG-13, 1992, 126 min

<u>Ideas for Projects</u>: Anagrams, computer hacking, braille, phone lines, electronics, alarms, codes, prime numbers, cryptography, the five senses, voice recognition, blueprints, garbage, heat sensors, motion sensors, velocity, toy technology

<u>Top Scenes</u>: 39:18-46:32 Too many secrets, 1:09:39-1:15:40 What did it sound like? 1:16:10-1:25:24 the plan

<u>Big Question</u>: What if you had to design a super-secret hideout. What security measures would you create?

Further Study: Learn more about secret codes & cryptography and try making your own code.

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