

**The Lunar Lander**  
**Inventions that Shook the World Series**

**Vocabulary:**

Tom Kelly, NASA, President John F. Kennedy, lunar lander

**Pre-Viewing Discussion:**

Why do you think it was important for the United States to put a man on the moon? What was happening in the world that made such an accomplishment so important?

What was the “space race”?

**Post-Viewing Discussion:**

How did Kelly’s idea for landing a man on the moon differ from other engineers’?

What were some of the challenges faced by Kelly when designing the lunar lander? How did Kelly and his team overcome them?

How did the lunar lander safely land on the moon and then return to the command module?

**Further Activities:**

Research the development of the lunar lander and the challenges associated with it. How did the public react to the moon landing? What impact has the moon landing had on our world today?

**The Weather Satellite**  
**Inventions that Shook the World Series**

**Vocabulary:**

Dr. Harry Wexler, Arthur C. Clarke, satellite, meteorology, TIROS-1

**Pre-Viewing Discussion:**

How do you get the weather forecast today? How do you think people got the weather forecast in the 1960s?

How do you think people dealt with severe weather in the 1960s?

**Post-Viewing Discussion:**

What did Dr. Wexler learn when he flew a plane into a hurricane? Why wasn't the information enough? What did Dr. Wexler want to create?

Where did Dr. Wexler get the idea for a weather satellite? How did that inspire him?

How successful was TIROS-1?

**Further Activities:**

Arthur C. Clarke was a science fiction writer, but he contributed to the development of a weather satellite. What does this tell you about how art and humanities can influence science and technology? How do you think science and technology influences art and the humanities?

**The Video Game Console**  
**Inventions that Shook the World Series**

**Vocabulary:**

Ralph Baer, video game, Bill Harrison, RF Signal, glass vacuum tubes, transistor, semiconductor

**Pre-Viewing Discussion:**

Do you play video games? Which are your favorites? Why do you like them?

How do you think the first video games were created? What do you think sparked the idea?

**Post-Viewing Discussion:**

What was Ralph Baer's background? What did he want to do to the TV experience? How did he think he might accomplish this?

Why do you think Baer kept his project a secret?

What were some of the challenges Baer had to overcome to create his first gamebox? How did he resolve them?

How did his superiors react the first time he unveiled his creation? How did he launch the entire gaming industry?

**Further Activities:**

Research Ralph Baer's life. Write a biography that includes his childhood, background, professional life, and major accomplishments. How are his accomplishments felt in our world today?

**The Taser****Inventions that Shook the World Series****Vocabulary:**

John Cover, non-lethal weapon, electrical current, Taser

**Pre-Viewing Discussion:**

What do you know about a Taser? Have you ever seen one used on TV? What usually happens to the person?

What do you think spurred the invention of the Taser? What element of the 1960s would have made a non-lethal weapon so appealing?

**Post-Viewing Discussion:**

What incidents inspired Cover to create a non-lethal weapon? Where did he get his idea?

How does a Taser work?

Why do you think Tasers are so popular with law enforcement around the world?

**Further Activities:**

Research the ways law enforcement are using Tasers in the United States. Are there rules for their use? What would justify a police officer using a Taser on a suspect?

Research what was happening in American society during the 1960s. What changes were happening in our culture and how did the 1960s shape the coming decades?

**The Industrial Robot**  
**Inventions that Shook the World Series**

**Vocabulary:**

George Devol, robot, Unimate, Joe Engelberger

**Pre-Viewing Discussion:**

What do you think inspired the invention of a robot? Where are robots used today?

What personal characteristics do you think make for a successful inventor? What personal challenges do you think they face?

**Post-Viewing Discussion:**

What was George Devol's personality like? What were his strengths? What were some of his weaknesses?

How does Devol's robot work?

Why did robots have a negative public image in America? How was that image different in Japan? How did Japan's adoption of the robot change the perception of robotics in America?

**Further Activities:**

Research the first industrial robots. How are they different from those used today? How are they the same?

Write a story set 20, 50, or 100 years in the future. Where do robots fit in to the society you create?