

U.S. HISTORY: 1865 TO THE PRESENT - USII.9 – CHANGING PATTERNS OF SOCIETY DURING THE SECOND HALF OF THE 20TH AND EARLY 21ST CENTURIES - 2023 STANDARDS

STANDARD USII.9A – ADVANCEMENTS IN SCIENCE AND TECHNOLOGY

- a. *study the iterative and ongoing advancements in science and technology;*

Time Period: Mid-20th Century to Early 21st Century

Key Idea: After World War II, the United States entered a period of rapid change often called **the Information Age**. **New inventions** in science, technology, communication, medicine, and business **transformed how Americans lived**, worked, and connected with the rest of the world. These innovations also changed what kinds of knowledge, education, and skills people needed to succeed.

Space Exploration and Technology

- **NASA** was created in 1958 to compete with the Soviet Union during the **Space Race**.
- **Apollo 11** (1969): Neil Armstrong and Buzz Aldrin became the first humans to **walk on the moon**, a symbol of U.S. scientific achievement.



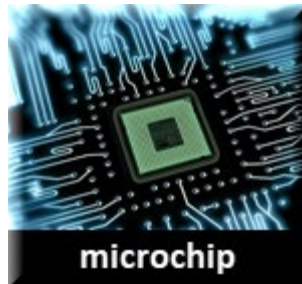
Space Shuttle launch

- Continued missions such as the **Space Shuttle Program** (1981–2011) and **International Space Station** (1998–present) encouraged global cooperation.

- **Satellite technology** revolutionized **GPS navigation**, weather forecasting, and global communication.

Computers and the Information Age

- The invention of **transistors** (1947) and **microchips** (1958) made **computers** smaller, faster, and cheaper.
- **Personal computers** appeared in homes and schools by the 1980s (Apple II, IBM PC).
- **The Internet** (developed from a 1960s military project called ARPANET) connected the world,



microchip

transforming communication, education, and business.

- The rise of email, social media, smartphones, and streaming services made **instant communication** part of everyday life.
- These advances created **new industries**—software, cybersecurity, digital media, biotechnology—and new career paths.

Advances in Medicine and Science

- **Vaccines** for polio, measles, COVID-19, and other diseases saved millions of lives.
- **Medical imaging** (X-rays, MRIs, CT scans) and surgical robots allowed safer, more precise treatment.



DNA

- Research in **genetics and DNA** led to gene therapy, personalized medicine, and new treatments for cancer and rare diseases.

- **Artificial intelligence (AI)** and data analysis are now used to detect disease, predict weather patterns, and design safer transportation systems.

Environmental Science and Energy

- Awareness of **pollution** and **resource depletion** grew during the 1960s and 1970s, inspiring laws like the Clean Air Act and Clean Water Act.



Renewable Energy

- In the 21st century, focus expanded to **climate change**, **renewable energy** (solar, wind, hydro), and electric vehicles.

- New “**green technologies**” aim to balance economic growth with environmental protection.

STANDARD USII.9B – CHANGES IN AMERICAN CULTURE

- b. *describe the changes in American culture related to music, art, media, and communication, as well as advancements in American economics related to banking, business, and industry.*

Key Idea:

Global communication, new media, and innovation in business and finance changed how Americans express themselves, earn money, and interact with the world.

🎵 American Culture: Music, Art, and Media

- **Music:** Rock and roll (1950s) evolved into new styles—Motown, disco, hip-hop, pop, country, and electronic music—often reflecting social change.
- **Art and Architecture:** Movements such as Abstract Expressionism, Pop Art, and Postmodernism challenged tradition. Architects used new materials like glass, steel, and sustainable designs.
- **Television and Film:** From black-and-white TVs to color broadcasting, cable, and streaming platforms, media became a major influence on public opinion and culture.



- **Social Media** (21st century): Sites like Facebook, YouTube, and TikTok turned everyday people into global creators and entrepreneurs, spreading ideas instantly around the world.

💰 Economics, Banking, and Business

Innovation

- **Automation** and **robotics** transformed factories, improving efficiency but reducing some manufacturing jobs.
- **Globalization** connected the U.S. economy to world markets, increasing trade and competition.
- **Online banking**, credit cards, and digital payments (PayPal, Venmo) made transactions faster and safer.
- **E-commerce** (Amazon, eBay, Etsy) and remote work technology changed the way Americans shop and work.
- **Entrepreneurship** and **innovation** in technology sectors—Silicon Valley, biotechnology, clean energy—became key drivers of U.S. economic growth.

