

Living in a high tech world:
Should we be concerned?



NATIONAL SCIENCE WEEK QUIZ 2024 - GRADE 8 to 12

Day 1: Technology in Education

1. What is one major advantage of using smartphones in education?

- A) They are expensive.
- B) They can provide access to a wide range of educational resources.
- C) They cause distractions.
- D) They are heavy.

2. How does online learning benefit students?

- A) By offering flexibility and personalized learning experiences.
- B) By limiting access to course materials.
- C) By reducing interaction with peers.
- D) By making coursework less accessible.

3. How can technology improve accessibility to education?

- A) By increasing the cost of learning materials.
- B) By providing online courses and resources.
- C) By limiting educational content.
- D) By making learning environments less interactive.

4. What is a benefit of e-books over traditional print books?

- A) They are less portable.
- B) They lack interactive features.
- C) They are more expensive.
- D) They offer adjustable text size and integrated search features.

5. How can overuse of technology affect academic performance?

- A) By causing distractions and reducing productivity.
- B) By increasing focus and study time.
- C) By enhancing learning experiences.
- D) By improving time management skills.

6. Which technology has significantly enhanced access to education in South Africa by providing online learning resources and virtual classrooms?

- A) Radio
- B) Television
- C) Internet
- D) Print media

7. How does technology help reduce social inequality?

- A) By increasing access to education, healthcare, and job opportunities
- B) By widening the gap between urban and rural areas
- C) By replacing human workers with machines
- D) By having no significant impact on disadvantaged communities

8. Which of the following is a key principle of technology access and use in South Africa?

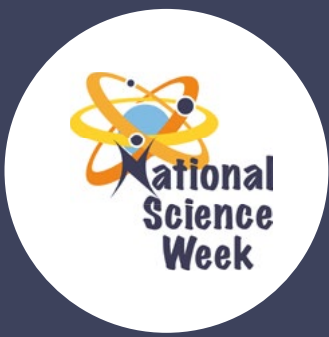
- A) Equity and inclusivity
- B) Lack of control
- C) Corruption and crime
- D) Restriction of human rights

9. Which of the following is a benefit of technology use and access in South African education?

- A) Improved student outcomes and achievement
- B) Increased access to educational resources and materials
- C) Enhanced teacher training and development
- D) All of the above

10. What is the role of the South African government in promoting digital literacy and skills development?

- A) To remove funding and support for digital literacy programs
- B) To restrict digital literacy and skills development
- C) To promote digital literacy and skills development through policy and initiatives
- D) To reduce digital literacy and skills development



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Day 2: Technology in Healthcare, Fitness, and Accessibility

1. How can technology improve healthcare?

- A) By increasing wait times for appointments.
- B) By reducing the accuracy of diagnoses.
- C) By enabling telemedicine and remote consultations.
- D) By decreasing the availability of medical information.

2. How can technology assist people with disabilities?

- A) By making it harder to access information.
- B) By offering assistive devices like screen readers and speech-to-text software.
- C) By creating additional barriers.
- D) By reducing accessibility options.

3. How can wearable technology benefit fitness and health?

- A) By reducing exercise motivation.
- B) By tracking health metrics and providing fitness feedback.
- C) By making workouts less engaging.
- D) By creating distractions during exercise.

4. In what way can technology aid in disaster response?

- A) By delaying communication.
- B) By providing real-time data and improving coordination.
- C) By hindering rescue operations.
- D) By making resource distribution less efficient.

5. What is the role of technology in economic development?

- A) To hinder growth
- B) To promote growth
- C) To have no impact
- D) To replace human workers

6. Which technology has improved access to financial services in South Africa?

- A) Mobile banking
- B) Internet banking
- C) ATM machines
- D) All of the above

7. Which company is a leader in cybersecurity technology and originated in South Africa?

- A) MTN
- B) Vodacom
- C) Telkom
- D) Dimension Data

8. Which of the following is a benefit of technology use and access in South African healthcare?

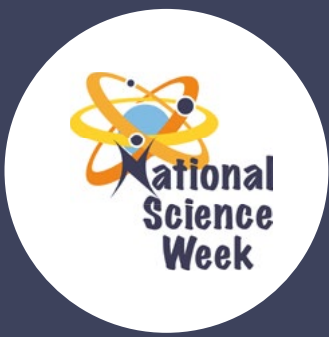
- A) Improved patient outcomes and care
- B) Increased access to healthcare services and resources
- C) Enhanced healthcare worker training and development
- D) All of the above

9. Technology can be beneficial and destructive

- A) Only beneficial
- B) Only destructive
- C) Both
- D) None

10. Which technology is more related to load shedding

- A) Medical technology
- B) Electrical technology
- C) Mining technology
- D) Agricultural technology



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Day 3: Technology in Business and Economic Development

1. What role does technology play in enhancing business productivity?

- A) It causes more paperwork.
- B) It leads to fewer communication tools.
- C) It streamlines processes and improves efficiency.
- D) It creates more manual tasks.

2. What advantage do online platforms provide for businesses?

- A) They limit customer reach.
- B) They offer a global marketplace and customer base.
- C) They decrease market visibility.
- D) They reduce sales opportunities.

3. Which South African start-up is using AI to improve customer service?

- A) Jumo
- B) Yoco
- C) Zapper
- D) SnapScan

4. What is the impact of technology on small businesses in South Africa?

- A) Only negative
- B) Only positive
- C) Both positive and negative
- D) No impact

5. Which South African startup is using blockchain technology to enhance transparency in the agricultural supply chain?

- A) Aerobotics
- B) Yoco
- C) Custos Media Technologies
- D) SweepSouth

6. What is the role of the South African government in promoting technology innovation and entrepreneurship?

- A) To reduce funding and support for start-ups
- B) To compete with technology start-ups
- C) To promote technology innovation and entrepreneurship through policy and initiatives
- D) To reduce technology innovation and entrepreneurship

7. Which of the following is a challenge to technology innovation and entrepreneurship in South Africa?

- A) Limited funding and support
- B) High regulatory barriers and restrictions
- C) Limited access to technology and internet
- D) All of the above

8. Which of the following is a challenge to digital literacy and skills development in South Africa?

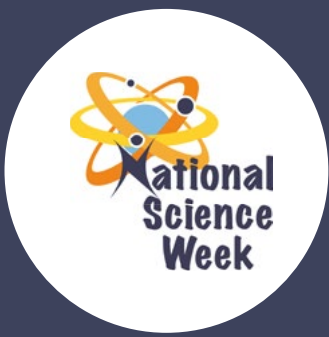
- A) Limited access to technology and internet
- B) High cost of digital literacy programs and training
- C) Limited qualified trainers and educators
- D) All of the above

9. What is the purpose of the South African Electronic Communications and Transactions Act (ECTA)?

- A) To regulate electronic communications and transactions
- B) To make business harder for electronic communications companies
- C) To reduce electronic transactions security
- D) To decrease the amount of electronic communications

10. Which of the following technologies is least essential for human survival?

- A) Information and communication technology
- B) Medical technology
- C) All of the above
- D) None of the above



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Day 4: Technology, Environment, and Social Issues

1. Which technology can help reduce energy consumption in homes?

- A) Traditional light bulbs.
- B) Smart thermostats and energy-efficient appliances.
- C) Older, non-digital devices.
- D) Unconnected home systems.

2. How does technology contribute to environmental conservation?

- A) By enabling smart grids and renewable energy technologies.
- B) By increasing the use of non-renewable resources.
- C) By polluting more.
- D) By promoting wasteful practices.

3. What is a potential downside of automation in the workforce?

- A) Job displacement and reduced employment opportunities.
- B) Increased job opportunities.
- C) Enhanced job satisfaction.
- D) Better work-life balance.

4. What is a disadvantage of digital divide?

- A) Increased access to technology.
- B) Unequal access to technological resources and information.
- C) Improved global connectivity.
- D) Increased technological literacy.

5. How does technology contribute to environmental pollution?

- A) By decreasing waste production.
- B) By increasing electronic waste and energy consumption.
- C) By reducing carbon footprints.
- D) By promoting recycling.

6. What is the purpose of the South African Protection of Personal Information Act (POPIA)?

- A) To regulate personal information collection and use
- B) To enable people to easily commit fraud
- C) To make the country more unsafe
- D) To reduce personal information regulation and oversight

7. Which technology has improved transportation in South Africa?

- A) High-speed rail
- B) Electric vehicles
- C) Mobile ride-hailing apps
- D) All of the above

8. What is a term for the use of technology to improve environmental sustainability?

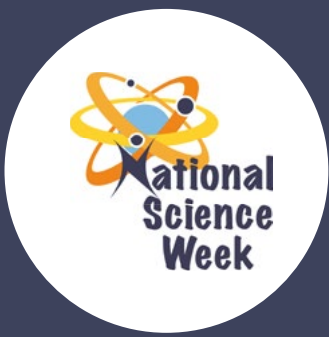
- A) Green technology
- B) Clean technology
- C) Sustainable technology
- D) All of the above

9. Which of the following is a challenge to technology access and use in South Africa?

- A) Limited infrastructure and connectivity
- B) High cost of technology and internet
- C) Limited digital literacy and skills
- D) All of the above

10. What is the purpose of the South African National Cybersecurity Policy?

- A) To increase cybercrime
- B) To make it possible for online fraud to take place
- C) To increase cybersecurity and data protection measures and incident response
- D) To reduce cybersecurity and data protection regulation and oversight



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Day 5: Challenges and Risks of Technology

1. What is a benefit of using social media for communication?

- A) It helps people stay connected across long distances.
- B) It can limit face-to-face interactions.
- C) It always invades privacy.
- D) It guarantees high levels of productivity.

2. What advantage does cloud storage offer?

- A) Limited access from various devices.
- B) Inability to share files.
- C) Ability to store and access data from anywhere.
- D) Increase data loss and security issues.

3. What is one advantage of using digital banking services?

- A) Increased bank visit requirements.
- B) The ability to manage finances conveniently from anywhere.
- C) Reduced security measures.
- D) Limited access to account information.

4. What is a common disadvantage of excessive screen time?

- A) Improved physical health.
- B) Better sleep quality.
- C) Increased risk of eye strain and sleep disturbances.
- D) Enhanced social interactions.

5. What is a major concern regarding online privacy?

- A) Increased anonymity.
- B) Data breaches and identity theft.
- C) Reduced data sharing.
- D) Enhanced security.

6. How can reliance on technology affect social skills?

- A) It can lead to decreased face-to-face interaction and social skills.
- B) It can enhance face-to-face communication.
- C) It promotes more social gatherings.
- D) It encourages better interpersonal relationships.

7. What is one negative impact of social media on mental health?

- A) Improved self-esteem.
- B) Decreased feelings of isolation.
- C) Enhanced social support.
- D) Increased risk of anxiety and depression.

8. What is one risk associated with using public Wi-Fi networks?

- A) Enhanced security.
- B) It is cheaper.
- C) Increased risk of data theft and hacking.
- D) Better encryption.

9. How can technology affect sleep patterns negatively?

- A) By improving sleep quality.
- B) By causing disruptions through blue light exposure and constant notifications.
- C) By enhancing sleep schedules.
- D) By reducing sleep disturbances.

10. What is a common concern with children using technology?

- A) Exposure to inappropriate content and potential cyberbullying.
- B) Increased physical activity.
- C) Improved social skills.
- D) Better academic performance.