

DAY 4 • HEALTH SCIENCE

History of Health Care

How discoveries, public health, and technology shaped modern care

Grade 9–12 • 90-minute lesson



Bellringer: Think, Write, Prepare

10 MINUTES

What medical invention or discovery has saved the most lives? Explain your reasoning.

Write independently • Use complete thoughts • Be ready to share evidence

1

Quiet writing first

Bellringer Discussion: Build the Class Answer

TURN AND TALK 1

- 1 Share one response with a partner.
- 2 Explain why it matters in health care.
- 3 Add one useful idea to your answer.

Sample answers

- ✓ Vaccines
- ✓ Antibiotics
- ✓ Sanitation/public health
- ✓ Medical imaging

Objective, Success Criteria, and TEKS

TODAY'S OBJECTIVE

Describe major events that shaped modern health care.

TEKS

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I can show success when I can...

- 1 Identify major healthcare milestones.
- 2 Explain why innovations mattered.
- 3 Connect historical change to modern patient outcomes.

Essential Question

ESSENTIAL QUESTION

How has health care changed over time?

TURN AND TALK 2

Give a first answer. Revisit it at closure.

Vocabulary: Language for Precise Thinking

Vaccination

Preparing the immune system to fight disease

Antiseptic

Substance or practice that reduces germs

Public Health

Organized efforts to protect community health

Pandemic

Disease outbreak across countries or continents

Medical Innovation

New idea, tool, or process that improves care

Ancient medicine mixed observation and belief

DEFINITION + EXPLANATION

Early healers used observation, herbs, surgery, spiritual beliefs, and trial-and-error.

HEALTHCARE EXAMPLE

Ancient splints and wound care show early attempts to treat injury.

NON-EXAMPLE

Assuming all ancient care was scientific or useless.

Why it matters: History shows medicine develops from both success and correction.

VISUAL MODEL



KNOWLEDGE CHECK

What can modern care learn from history?

Public health changed survival

DEFINITION + EXPLANATION

Public health improved health through sanitation, clean water, waste control, and disease tracking.

HEALTHCARE EXAMPLE

Cities reduced disease by improving water and sewage systems.

NON-EXAMPLE

Only treating sick people after outbreaks begin.

Why it matters: Prevention at population level saves lives.

VISUAL MODEL



KNOWLEDGE CHECK

Name a public health action.

Germ theory transformed care

DEFINITION + EXPLANATION

Germ theory explained that microorganisms can cause disease.

HEALTHCARE EXAMPLE

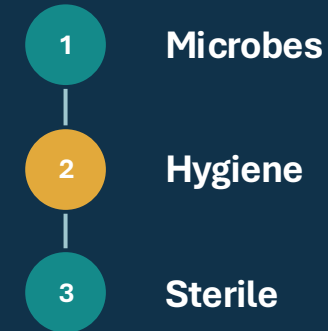
Hand hygiene and sterile technique reduce infection risk.

NON-EXAMPLE

Believing bad air alone causes every disease.

Why it matters: Understanding causes changed prevention and treatment.

VISUAL MODEL



KNOWLEDGE CHECK

How did germ theory change hospitals?

Antiseptics reduced infection

DEFINITION + EXPLANATION

Antiseptic practices reduce germs on skin, surfaces, wounds, or instruments.

HEALTHCARE EXAMPLE

A surgical team cleans skin and uses sterile supplies before an incision.

NON-EXAMPLE

Using clean-looking tools without sterilization.

Why it matters: Infection control made surgery much safer.

VISUAL MODEL



KNOWLEDGE CHECK

What is a non-example of antiseptic practice?

Vaccines prevent disease

DEFINITION + EXPLANATION

Vaccines train immune defenses before exposure to certain diseases.

HEALTHCARE EXAMPLE

Public health clinics provide childhood immunizations.

NON-EXAMPLE

Treating vaccines as treatment after severe illness begins.

Why it matters: Vaccination can protect individuals and communities.

VISUAL MODEL



KNOWLEDGE CHECK

Why do vaccines matter beyond one person?

Antibiotics changed infection treatment

DEFINITION + EXPLANATION

Antibiotics treat many bacterial infections when used appropriately.

HEALTHCARE EXAMPLE

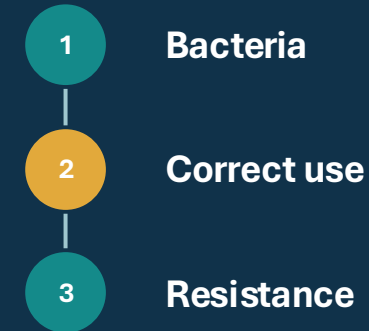
A provider prescribes an antibiotic for confirmed bacterial pneumonia.

NON-EXAMPLE

Using antibiotics for viral colds.

Why it matters: Antibiotics reduced deaths but require responsible use.

VISUAL MODEL



KNOWLEDGE CHECK

Why is misuse harmful?

Medical imaging made the body visible

DEFINITION + EXPLANATION

Imaging technologies help clinicians see inside the body without exploratory surgery.

HEALTHCARE EXAMPLE

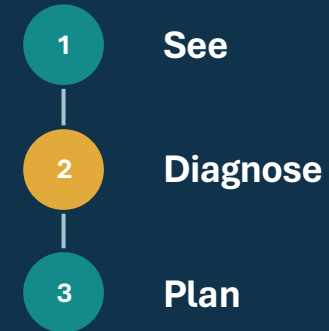
X-rays help diagnose fractures; CT and MRI show more detail.

NON-EXAMPLE

Guessing a fracture without imaging when imaging is needed.

Why it matters: Imaging improves diagnosis and treatment planning.

VISUAL MODEL



KNOWLEDGE CHECK

What role does imaging play?

Innovation continues through teamwork

DEFINITION + EXPLANATION

Modern innovations include transplants, telehealth, robotics, genomics, and improved emergency care.

HEALTHCARE EXAMPLE

A transplant team coordinates surgery, labs, nursing, pharmacy, and follow-up.

NON-EXAMPLE

Thinking one inventor alone changes all healthcare.

Why it matters: Innovation requires research, ethics, teams, and access.

VISUAL MODEL



KNOWLEDGE CHECK

What question should we ask about new technology?

Guided Practice: Explain Your Classification

TURN AND TALK 3

Choose the best classification and defend it with course vocabulary.

1

Vaccines prevent disease.

2

Antibiotics treat a viral cold.

3

Imaging supports diagnosis.

Sentence frame: This is _____ because the evidence shows _____.

Whiteboard Check 1: Choose the Best Answer

WHITEBOARD CHECK 1

True or False: Antibiotics treat all infections.

A. True

B. False

Write only the letter. Show on signal. Then explain your evidence.

Scenario Analysis: Decide the Safest Next Step

SCENARIO ANALYSIS

WHITEBOARD CHECK 2

TURN AND TALK 4

A hospital is reviewing why infection rates dropped after hand hygiene, sterile instruments, and antibiotics became standard.

Which historical milestones explain the change?

Write A, B, C, or D

- A. Ignore the issue
- B. Pause and use evidence**
- C. Blame one person
- D. Guess quickly

Health Care Timeline: Mission and Directions

25 MINUTES

Your mission

**Apply today's concepts
through Health Care
Timeline.**

Quality = accurate + specific + respectful
+ realistic

- 1 Create an illustrated timeline with at least six milestones.
- 2 Include date or era, event, and why it mattered.
- 3 Connect each event to patient care or public health.
- 4 Prepare a one-minute explanation.

Health Care Timeline: Activity Cards and Materials

Ancient medicine

Germ theory

Antibiotics

Organ transplants

Sanitation/public health

Vaccination

Medical imaging

Telehealth

Health Care Timeline: Debrief, Key, and Career Connection

ANSWER KEY / EXPECTED RESPONSES

1

Strong timelines include sequence and impact, not only names.

2

Students should explain why the event changed outcomes.

3

Accept approximate eras when exact dates are not required by the lesson.

HEALTHCARE CAREER CONNECTION

**Medical historians,
researchers, infection
preventionists, radiology staff,
and public-health workers all
use lessons from history to
improve care.**

Professional habit: use evidence,
protect dignity, and stay within scope.

Independent Practice: Written Reflection

WRITTEN REFLECTION**TURN AND TALK 5**

Write a paragraph: Which medical innovation had the greatest impact on society? Support your claim with evidence.

Use: claim → evidence/example → explanation → next action

Self-check

- 1 Specific
- 2 Realistic
- 3 Healthcare connection
- 4 Uses vocabulary

Exit Ticket: Show What You Know

5 MINUTES • INDEPENDENT

1

Name one healthcare innovation.

2

Explain its impact.

3

How has healthcare changed over time?

Exit Ticket Key and Closure

Expected responses

- 1 Examples include vaccines, antibiotics, antiseptics, imaging, public health, transplants.
- 2 Impact should connect to prevention, diagnosis, treatment, survival, or access.
- 3 It has shifted toward science-based prevention, safer procedures, technology, and team-based care.

RETURN TO THE ESSENTIAL QUESTION

How has health care changed over time?

Success check

- ✓ Identify major healthcare milestones.
- ✓ Explain why innovations mattered.
- ✓ Connect historical change to modern patient outcomes.

Administrator Look-Fors

This slide is intended for instructional leaders and should not be shown during student presentation.

Student engagement

Turn-and-Talks, whiteboards, scenario reasoning, collaboration

Checks for understanding

Bellringer, knowledge checks, guided practice, exit ticket

Collaboration

Health Care Timeline

Standards alignment

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Healthcare application

Patient, workplace, career, and community contexts

Mastery

Independent writing, answers, closure tied to success criteria