Changing Indiana Lives

How new tools reshape work and daily life

IS.1.31 "Describe developing trends in science and technology and explain how they impact the lives of Hoosiers today."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one developing technology in each paragraph, circle one effect it has on Hoosiers, and put the same number beside each linked pair.

New Tools, New Choices

1 On an Indiana corn farm, a grower once had to judge soil conditions from scattered field checks. Today, some farms use GPS-guided tractors and sensors that report moisture in different parts of a field. Software can turn those readings into a plan to apply water or fertilizer only where it is needed. This approach, often called precision agriculture, can reduce wasted supplies and help a farmer respond to dry areas sooner. Yet equipment and subscriptions cost money, and the information is useful only if a farmer can interpret it. The trend changes farm decisions, not just farm machinery.

2 A patient in a small Indiana town may live far from a specialist. In the past, an appointment could mean hours of travel, even for a brief follow-up. Telehealth now lets some patients speak with clinicians by video from home or a nearby clinic. Devices can also send blood pressure readings to a care team between visits. This can make routine care easier to fit around work and family life, but an exam or procedure may still require an in-person visit. Reliable internet, a suitable device, and privacy matter, so telehealth does not help every household equally.

3 Indiana factories have long made auto parts and other goods. In many plants today, computer-controlled machines and industrial robots perform repeated tasks such as moving parts or making precise welds. Workers still set up equipment, check quality, and solve problems when a process stops. Automation can make production more consistent and may reduce some physically demanding tasks. It can also change which jobs are available, increasing demand for workers trained in programming, maintenance, or troubleshooting. Community colleges and employer training programs can help Hoosiers build those skills, but retraining takes time and may be hard to afford while working.

2 ANSWER WITH EVIDENCE

Use the passage

1. How do sensors and software change a farmer's decisions, and what is one possible benefit?

2. How can telehealth change a Hoosier's access to care, and what might limit that benefit?

3. How does factory automation change workers' tasks and the skills some jobs require?

4. What do precision agriculture and telehealth show about why new technology may not benefit all Hoosiers equally?

3 YOUR TURN

Your own words

Write a realistic five- to seven-sentence day-in-the-life scenario about one Hoosier who encounters two trends from the passage. Show how each trend affects that person and include one challenge the person faces.

ANSWER KEY

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HIGH SCHOOL · IS.1.31

PART 1 · READ AND MARK

Underline one developing technology in each paragraph, circle one effect it has on Hoosiers, and put the same number beside each linked pair. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How do sensors and software change a farmer's decisions, and what is one possible benefit?	**They help the farmer decide where water or fertilizer is needed, which can reduce wasted supplies.**
2	How can telehealth change a Hoosier's access to care, and what might limit that benefit?	**Video visits can reduce travel for some appointments, but unreliable internet or a lack of a suitable device can limit access.**
3	How does factory automation change workers' tasks and the skills some jobs require?	**Robots perform some repeated tasks while workers set up equipment and solve problems, increasing demand for skills such as maintenance or troubleshooting.**
4	What do precision agriculture and telehealth show about why new technology may not benefit all Hoosiers equally?	**Farm equipment and subscriptions cost money, while telehealth requires reliable internet and a suitable device. Not everyone has access to these resources.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Marisol lives in a small Indiana town and works at an auto parts plant. She learns to troubleshoot a robot that moves parts, so she can take on a new task at work. Fitting training around her shifts is difficult. When she needs a follow-up visit, she talks with a specialist by video instead of driving to another city. Her home internet drops calls, so she uses a private room at a nearby clinic. These tools give her new work options and save travel time, but she needs training and reliable internet to use them.

Accept plausible scenarios that connect two trends to specific effects on one Hoosier and include a realistic challenge. Details may extend beyond the passage if they remain consistent with it.