Health Detectives

How experts use evidence to investigate healthy choices

L.4.1.5 "Using informational text, investigate how scientific fields, medical specialties, and research methods help us find new ways to maintain a healthy body and lifestyle (e.g., diet, exercise, vaccines, and mental health)."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each health expert, circle what the experts record or compare, and number each way their work could help people stay healthy.

How Health Questions Get Answers

1. At Pine Street School, some students felt sleepy before recess. A nutrition scientist wondered whether breakfast habits played a part. She asked families to record what children ate for breakfast and how awake they felt each morning for two weeks. She looked for patterns, but she knew the records could not prove why someone felt sleepy. The records could help families ask better questions about balanced meals.

2. Across town, a pediatrician, a doctor who cares for children, helps test a new vaccine. Vaccines train the body's defenses to recognize germs. During a careful trial, the pediatrician checks children for side effects and illness. Researchers compare results from different groups before health officials decide whether to recommend the vaccine. This work helps doctors and families make informed choices about preventing certain diseases.

3. Another team studied movement and feelings. An exercise scientist measured how long students walked each day. A psychologist asked students to rate their mood on the same days. The team compared the records across many days because one rough day might have other causes, such as a poor night's sleep. Their findings could guide ideas for active breaks, but more study would be needed to test whether walking improves mood.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did the nutrition scientist look for a link between breakfast and alertness? How might her work help families?

2. What does the pediatrician check during a vaccine trial, and how can this research help families?

3. How did the exercise scientist and psychologist work together to study movement and mood?

4. Why did the movement team compare records across many days? What would they still need to test?

3 YOUR TURN

Your own words

A class wonders whether bedtime routines affect how alert students feel at school. In three sentences, name a health expert who could help, describe a safe way to gather evidence over several days, and explain how the findings might guide a healthy choice.

ANSWER KEY # Health Detectives

GRADE 4 · L.4.1.5

PART 1 · READ AND MARK

Underline each health expert, circle what the experts record or compare, and number each way their work could help people stay healthy. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did the nutrition scientist look for a link between breakfast and alertness? How might her work help families?	**She looked for patterns in two weeks of breakfast and alertness records. The patterns could help families ask better questions about balanced meals.**
2	What does the pediatrician check during a vaccine trial, and how can this research help families?	**The pediatrician checks children for side effects and illness. Trial results help families make informed choices about preventing certain diseases.**
3	How did the exercise scientist and psychologist work together to study movement and mood?	**The exercise scientist measured walking time, and the psychologist collected mood ratings for the same days.**
4	Why did the movement team compare records across many days? What would they still need to test?	**One rough day might have another cause, such as poor sleep. The team would still need to test whether walking improves mood.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A sleep scientist could help study whether bedtime routines relate to feeling alert at school. Students could anonymously record their usual bedtime routines and morning alertness for two weeks, without changing their sleep on purpose. If the records show a pattern, families could consider a steady bedtime, although the records alone would not prove what caused it.

Accept other relevant health experts and safe ways to collect evidence about usual sleep habits. Responses should connect the evidence to a possible healthy choice without claiming that a pattern proves cause and effect.