Evidence or Assertion?

Sort research by how it reaches a conclusion.

P.1.4 "Distinguish between scientific and nonscientific research."

NAME _____ DATE _____

SCIENTIFIC RESEARCH

Scientific research asks a question that evidence can help answer. It collects and studies evidence using a clear method that others could follow.

Researchers measure plant growth in 20 gardens to check whether adding compost makes a difference.

NONSCIENTIFIC RESEARCH

Nonscientific research may rely only on a feeling, a person's claim, or an idea that cannot be checked with evidence. It does not use a clear method to test its conclusion.

A writer calls a painting the finest work ever made solely because a celebrity says so.

1 SORT

8 items

For each numbered item, circle SCIENCE or NONSCIENCE, then choose two items and explain how you knew where each belongs.

1.	1. Researchers count arrivals in dated shipping logs from two ports before and after a new tax.	SCIENCE NONSCIENCE
2.	2. A team uses the same survey questions with 200 voters to measure trust after a debate.	SCIENCE NONSCIENCE
3.	3. An author calls an ancient king wise only because a legend says he was wise.	SCIENCE NONSCIENCE
4.	4. Historians check census records from two decades to see whether a city's population rose.	SCIENCE NONSCIENCE
5.	5. A blogger declares a treaty fair because it feels fair to them.	SCIENCE NONSCIENCE
6.	6. A speaker says a castle is haunted because a ghost spoke to them in a dream.	SCIENCE NONSCIENCE
7.	7. Researchers use a written set of rules to count mentions of strikes in 100 newspaper articles.	SCIENCE NONSCIENCE
8.	8. Archaeologists record each pottery shard's style and dated layer to check whether styles changed over time.	SCIENCE NONSCIENCE

2 PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write one new example of scientific research and one new example of nonscientific research.

SCIENCE _____

NONSCIENCE _____

CHALLENGE

Choose one nonscientific item, turn its topic into a testable research question, and describe a repeatable way to collect evidence.

Evidence or Assertion?

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	1. Researchers count arrivals in dated shipping logs from two ports before and after a new tax.	**SCIENCE**	They use records and a stated comparison to answer a question with evidence.
2	2. A team uses the same survey questions with 200 voters to measure trust after a debate.	**SCIENCE**	The team gathers measurable responses using a consistent method.
3	3. An author calls an ancient king wise only because a legend says he was wise.	**NONSCIENCE**	The conclusion rests only on a legend, without a method for checking evidence.
4	4. Historians check census records from two decades to see whether a city's population rose.	**SCIENCE**	They answer a testable question by comparing recorded population counts.
5	5. A blogger declares a treaty fair because it feels fair to them.	**NONSCIENCE**	The judgment rests on a personal feeling rather than a testable method.
6	6. A speaker says a castle is haunted because a ghost spoke to them in a dream.	**NONSCIENCE**	A dream does not provide evidence others can check using the same method.
7	7. Researchers use a written set of rules to count mentions of strikes in 100 newspaper articles.	**SCIENCE**	The written rules make the evidence-gathering method clear and repeatable.
8	8. Archaeologists record each pottery shard's style and dated layer to check whether styles changed over time.	**SCIENCE**	They collect evidence in a consistent way to answer a testable question.

PART 2 · PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **SCIENCE**: Researchers count student absences each month for a year to check whether attendance changes by season.
- **NONSCIENCE**: A writer insists that a family recipe brings good luck only because a relative says it does.

Challenge: Did the number of recorded border disputes change after the treaty was signed? Count disputes in official records for five years before and five years after the treaty using the same counting rule.

For the two explanations in Part 2, look for the item's specific method or the reason its claim lacks a checkable method. Accept original examples and challenge responses that apply the same distinction.