STEVE TRASH – SCIENCE LIVE SHOW

TRUE or FALSE Post-Show Discussion Guide

Grades K–8
20 Questions to Spark Scientific Thinking

1. TRUE or FALSE – Science and magic are the same thing.

❌ FALSE.
Magic creates illusions, while science explains how the natural world really works.

2. TRUE or FALSE – Science helps people understand how the world works.

✅ TRUE.
Science allows us to discover patterns, explanations, and solutions.

3. TRUE or FALSE – Experiments help scientists test their ideas.

✅ TRUE.
Testing ideas helps scientists see whether they are correct.

4. TRUE or FALSE – Science is only for adults and professional scientists.

❌ FALSE.
Anyone who asks questions and looks for evidence can think like a scientist.

5. TRUE or FALSE – The scientific method is a step-by-step way to investigate questions.

✅ TRUE.
It includes observing, asking questions, testing ideas, and drawing conclusions.

6. TRUE or FALSE – Guessing without testing is how science works.

❌ FALSE.
Science requires evidence and testing.

7. TRUE or FALSE – Technology such as phones and computers depends on science.

✅ TRUE.
Many modern inventions were made possible through scientific discoveries.

8. TRUE or FALSE – Scientists ask questions about how things work.

✅ TRUE.
Curiosity is an important part of science.

9. TRUE or FALSE – Evidence helps scientists know whether an idea is correct.

✅ TRUE.
Evidence is information collected through observation and testing.

10. TRUE or FALSE – Magic tricks can look like science even when they are illusions.

✅ TRUE.
They can appear similar, but science explains what is really happening.

11. TRUE or FALSE – Observing carefully is an important science skill.

✅ TRUE.
Scientists learn by noticing what happens.

12. TRUE or FALSE – Science can never help solve real-world problems.

❌ FALSE.
Science helps solve problems in medicine, technology, engineering, and the environment.

13. TRUE or FALSE – A hypothesis is an educated guess that can be tested.

✅ TRUE.
Scientists test hypotheses through experiments.

14. TRUE or FALSE – Making mistakes during experiments means science failed.

❌ FALSE.
Mistakes help scientists learn and improve their ideas.

15. TRUE or FALSE – Science uses both observation and experimentation.

✅ TRUE.
Both are important for understanding results.

16. TRUE or FALSE – Only complicated experiments count as science.

❌ FALSE.
Simple investigations can also be scientific.

17. TRUE or FALSE – Scientists share their findings so others can learn from them.

✅ TRUE.
Sharing results helps knowledge grow.

18. TRUE or FALSE – Being curious is an important part of scientific thinking.

✅ TRUE.
Curiosity leads to new discoveries.

19. TRUE or FALSE – Science is based on evidence rather than opinions.

✅ TRUE.
Evidence helps us understand what is true.

20. TRUE or FALSE – Students can use scientific thinking in everyday life.

✅ TRUE.
Asking questions, observing, and testing ideas helps solve daily problems.

Teacher Tip

Use these questions:

- Immediately after the show
- As a next-day STEM reflection
- For small-group discussion
- As documentation for **21st CCLC enrichment discussion**