CLEAN Link

The STINK Test:

Validating Sources

Adapted by
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Preview

In a time when evidence-based information is questioned, it is imperative that we teach our students how to recognize whether a source is valid or not. The STINK Test gives them the tools to do just that.

Materials

Articles at your students' reading level—content based on a subject you are studying

Copy of the STINK Test scoring sheet

Background

The world is full of information, but not all of it is accurate, useful or valid. It's important to know that people want to convince you, get you to agree with their opinions, rely on their data, and accept them as experts. By practicing the elements of the STINK Test, students will build both background knowledge as well as the skills necessary to be a discerning consumer of information by recognizing:

- **Reliability and timeliness:** trustworthy based on information about the publisher and/or author; up-to-date
- **Relevance:** the information is important for the reading purpose
- **Bias/Perspective:** how the author 's position or slant affects the presentation of information
- **Accuracy:** information contains factual and updated details that can be verified in other resources or primary research

When scientists write papers based on their research, they work hard to present evidence without personal bias. They do this by focusing on measurable results and where that evidence leads them.

Critical readers need to be able to recognize an author's bias, prejudice and purpose. Some obvious clues might be:

1. use of inflammatory or emotional language
2. an author that consistently makes claims not supported by the evidence

3. an author who consciously ignores information that might suggest a different conclusion
4. an author who manufactures or dishonestly cites evidence to shed a more positive light

It is tempting to accept whatever information is found, especially if it agrees with pre-conceived ideas, but learning to evaluate sources is an important skill both for school projects and for life-long learning.

Key Concepts

Bias
Prejudice
Pre-conceived
Accuracy
Timely

Activity Directions

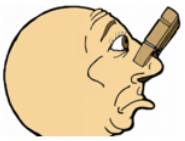
1. Students will read several articles at their reading level and score them according to the STINK Test.
2. In small groups, discuss the scores they gave and why.
3. Report out to the whole group.
4. Discuss the elements of the articles that students ranked low on the STINK test.

Extensions

At the end of a unit of study, students write articles about the content of the unit. Students are divided into groups ahead of time and are assigned to either intentionally meet the criteria of the STINK Test or to write from a biased viewpoint. Groups exchange articles and score them according to the test. Discuss the results and why each was scored the way it was.

Student Worksheet **NAME: _____**

***The STINK Test*: Recognizing Reliable Sources**



Directions: Score your research source using the categories below.

- Rank each item in the 5 parts from 1-20 (0 = unreliable, 20 = excellent)
- Add up the scores to give you an idea of whether you should trust the source or not:

SCORE

1. **Source of the information (20 points)** _____
   - Who is the author/publisher/source/sponsor?
   - Is the sponsor from a government or university source? (.gov or .edu)
   - What are the author's credentials/qualifications on the topic?
   - What is the root of the URL/web address?
2. **Timely and Functional (20 points)** _____
   - Current or out-of-date (within the past 10 years?)
   - Do links work? Grammatical errors?
3. **information relevance (20 points)** _____
   - Does the information relate to your topic?
   - Is the information at your level?
   - Does the author cite or mention their sources?
4. **No bias or slant (20 points)** _____
   - Are the claims made supported by reliable numerical evidence?
   - Can the information be verified in another source?
   - Is the author's language and tone free of emotion or obvious bias?
   - Does the article ask for money or does the article have ads?
5. **Knowledge accuracy (20 points)** _____
   - What is the purpose of publishing, producing or making the source available?
   - Does the author make his/her intentions clear?
   - Does the information appear to be fact? Opinion? Propaganda?
   - Does the author cite or mention their sources?
   - Does the author have credentials in the area of research cited?

TOTAL _____

Add up the scores to give you an idea of whether you should trust the source or not.

< 70 = Stinky! Don't trust it!
70-79 = C = A bit smelly. Check other sources.
80-89 = B = Sweet!
90-100 = A = Smells like a rose—very trustworthy!

Write a paragraph explaining why you think this source passes or fails the "STINK" Test!
DQ Zone ((Disqualification): if the following three truths are mis-stated, the source should receive an **automatic "0" score**!

1. For the past 800,000 years while human civilization has developed, the natural range of CO_2 has ranged from about 180 ppm to about 280 ppm. At this writing, CO_2 levels are at ~420 ppm (check https://www.co2.earth/daily-co2 for updates) and rising.

   CO_2 can be directly measured in the atmosphere today as well as in gas bubbles trapped in ice layers from ice cores recovered in Antarctica and Greenland.

   CO_2 is important because of its close relationship to temperature. When CO_2 in the atmosphere is high, temperatures also rise (think inter-glacial periods); when it is low, temperatures are also low (think ice ages).

2. Humans are causing the dramatic rise in CO_2 by burning fossil fuels. Humans began using fossil fuels during the Industrial Revolution over 200 years ago. Since then, CO_2 in the atmosphere has risen about 47% from ~280 ppm to the current ~420 ppm. Scientists can pinpoint the source of the CO_2 from the isotopic signature of burned fossil fuels.

3. Events of extreme heat, drought, wildfires, and heavy precipitation have all increased over the past century. These events can be connected directly to warming oceans and atmosphere caused by global warming..

STINK Score____ **Explain below why you think this source should pass or fail the stink test. Include up to three specific reasons.**	
Pass	**Fail**
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Next Generation Science Standards (NGSS) and Common Core

Highlighted standards are represented in this activity.

Next Generation Science Standards
(delete the standards that don't apply)

Physical Sciences

- NGSS PS1: Matter & its interactions
- NGSS PS2: Motion and Stability: Forces and Interactions
- NGSS PS3: Energy
- NGSS PS4: Waves & their applications in technologies for information transfer

Life Sciences

- NGSS LS1: From molecules to organisms Structures and processes
- NGSS LS2 Ecosystems: Interactions, energy and dynamics
- NGSS LS3: Heredity: Inheritance and variation of traits
- NGSS LS4: Biological evolution: Unity and diversity

Earth and Space Sciences

- NGSS ESS1: Earth's place in the Universe
- NGSS ESS2: Earth's systems
- NGSS ESS3: Earth and human Activity

Engineering, Technology, & Applications of Science

- NGSS ETS1: Engineering Design
- NGSS ETS2: Links among engineering, technology, Science and society

Science and Engineering Practice

- Asking questions and defining problems
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data
- Using math and computational thinking
- Constructing explanations (for science) and designing solutions (for engineering)
- Engaging in an argument from evidence

Crosscutting Concepts

- Patterns
- Cause and effect
- Scale, proportion and quantity
- systems and system models
- Energy flow and conservation
- Structure and Function
- Stability and change

Common Core Practice Standards
(delete the standards that don't apply)

Math

- MP1: Make sense of problems and persevere in solving them
- MP2: Reason abstractly and quantitatively
- MP3: Construct viable arguments and critique the reasoning of others
- MP4: Model with mathematics
- MP5: Use appropriate tools strategically
- MP6: Attend to precision
- MP7: Look for and make sense of structure
- MP8: Look for and express regularity in repeated reasoning

ELA

- ELA1: Demonstrate independence
- ELA2: Build strong content knowledge
- ELA3: Respond to varying demands of audience, task, purpose, and discipline
- ELA4: Comprehend as well as critique
- ELA5: Value evidence
- ELA6: Use technology and digital media strategically and capably
- ELA7: Come to understand other perspectives and cultures

• Obtaining, evaluating and communicating information.	