Is this Worthy of attention?	**Who is presenting this?** *Consider: individual and organization qualifications, conflict of interest, and trustworthiness.*	Is this published by a reputable source (individual, organization, or publication)? Is it peer reviewed? Is the author qualified? If they are a scientist, do they have expertise in this particular subject area? Who funded this? Does the funding source introduce any conflicts of interest? Do an online search to find out what others say about the trustworthiness of the author, publication, or organization.
	What claim are they making or implying?	Is there a claim that requires scientific evidence to support it? Is there a subtle claim implied by the presentation of the data?
	Why are they making the claim? *Do an online search for purpose and motive.*	What is the purpose of the information? Is the intention clearly stated or subtly implied? Is the point of view objective and impartial? Is there evidence that this is opinion, propaganda, marketing, or politically motivated?
	When was the claim made?	When was it published or posted? Has there been an update since then? If it is not a primary source, can you trace the information back to the original source?
Inspect the data.	**What data support this claim?**	Is specific evidence given? If not, why didn't they use evidence and where might we find evidence to support or refute the claim? If they provided evidence, what variables were measured? Who collected the data and for what purpose?
	How are the data represented? *Pay careful attention to the labels on the axes of graphs.*	What variables are represented in the data display (charts, graphs, etc.)? Are the variables and axes labeled appropriately? Are the data presented in a straightforward way, or are they misleading? What relationships among the variables are suggested by the shape of the graph?
	Is the graph appropriate? *Consider: scale, units, cherry-picking, categories, grouping, oversimplification, truncation, etc.*	Is the scale of the graph appropriate? Is the graph showing only data that supports the claim while leaving out other data (cherry-picking)? Is the graph showing too much data so that it is difficult to see relevant trends? Are the axes truncated to make differences seem exaggerated (bar graphs should start at zero)? Does the way the data are grouped (categories) support the claim? Should other categories or different ways to visualize the data be considered?
Does this make Sense?	**Are the data relevant and sufficient to support the claim?**	Is causation implied for a correlation without sufficient evidence or reasoning? Could another variable account for some or all of the change? How could you design an investigation to test whether these variables could be interacting, while controlling as many other variables as possible?
	Are there signs that the data are biased?	How and why was this sample chosen? Was it chosen for convenience? Did the author only use data that would support their argument to the exclusion of other relevant data? Is the sample size large enough to be representative?
	Are there other ways to interpret the data?	How do you interpret the data? Do your conclusions match the claim presented? Could other claims be supported through different interpretations?
	How does this claim compare with other reliable sources? *What do the experts say?*	Look at other reliable sources. Can you find other studies on the same topic? Is there consensus in the relevant field of study? Has the claim been debunked by a fact-checker or other experts? If other studies disagree with this one, which claim is supported by the strongest evidence and reasoning?
What Emotion is activated?	**How do the claim and evidence make me feel?**	If you feel a strong emotion, ask yourself what belief it supports or challenges. When feeling strong emotions, we must work even harder to be objective. Is the author purposely activating specific emotions? Remember that extraordinary claims require extraordinary evidence.
	Is this what I already believed before I read it?	We have a tendency to interpret evidence in ways that confirms our beliefs. Confirmation bias makes it difficult to accept evidence contradicting our beliefs.
	What might make me change my mind?	Whether you agree or disagree with the claim, consider what it would take to change your mind. What kind of evidence? How much evidence? If no amount of evidence could ever change your mind, your view isn't based on data.