

IDENTIFYING BIAS IN SCIENCE!

(COMPLETED RESEARCH)

Article Name	Author	Date	The Article Discusses Human or Natural Causes?	Brief Summary of Article's Main Ideas (Facts/Opinions presented)	Biased or Fact Based? (Trustworthy or not?)
Pink Packet					
"Global Warming Almost Certainly Caused By Humans... Past 63 Years"	Ryan Inoyori	Jan. 31, 2014	Human Caused	<ul style="list-style-type: none"> * Levels of GHG's caused by humans increased *GHG's at levels not seen in at least 800,000 years *1950-2013 all areas of world experiencing higher temperatures *Contributing to unusual climate change and many negative environmental changes (ex: floods, extinction, extreme seasons) 	Trustworthy (the article references data from NASA and the United Nations (UN))
"Human Cause of Global Warming is Near Certainty, UN Reports"	United Nations <i>(Informational agency from over 63 nations around the world)</i>	Jan. 30, 2014	Human Caused	<ul style="list-style-type: none"> *GHG emissions will cause future warming and climate change *95-100% probability that humans, not nature, are to blame *Many negative environmental impacts- past, present and future (ex: ice sheets melting, sea levels rising, heat waves, permafrost temperature increase) *GHG levels at highest levels recorded in past 800,000 years (especially since birth of industrial era about 250 years ago) 	Trustworthy (references data from UN and IPCC)
"Global Warming is Being Caused by Humans, Not the Sun..."	Dana Nuccitelli	Jan. 9, 2014	Human Caused	<ul style="list-style-type: none"> * "evidence that humans are the dominant cause of global warming is overwhelming" *data shows the sun is not the cause- solar activity declined over past 50 years *melting ice makes the planet less reflective, so it absorbs more sunlight/heat *an increase in cloud cover could reflect more sunlight out to space, but global warming is causing water vapor to be pulled from higher cloud levels, creating less cloud cover (so warmer) *at current rates, we can expect a 4°C warming by 2100- "a potentially catastrophic scenario" 	Trustworthy (references publications and data findings from UN/IPCC, Nature Geoscience, Nature, and several scientific studies from 2009-2013)

<p>“The Growing Impact and Dangers of Global Warming”</p>	<p>Bryan Dyne</p>	<p>Nov. 27, 2012</p>	<p>Human Caused</p>	<ul style="list-style-type: none"> * Global warming- causing extreme weather events (ex: melting of Greenland’s ice, historic droughts, Hurricane Sandy- raise in sea level) *Earth’s atmosphere is absorbing too much heat from the sun because of GHG’s *Although some natural processes cause temperatures/GHG’s to rise and fall, since start of industrial era, humans put more CO₂ in the atmosphere by burning fossil fuels and deforestation * Humans also are causing rising methane levels from landfills, livestock and oli/gas facilities *Decrease in ice due to melting- atmosphere reflecting less sunlight and raising Earth temperatures *Risk of global catastrophe if not fixed (ex: mass death of plankton leading to collapse of Earth’s food chain) 	<p>Sort-of Biased</p> <p>(two small references to NASA/ESRL in Hawaii, but no other sources cited for most of his information—at end of article, includes personal opinion about social profit “schemes” that are not allowing social need for a change to take place)</p>
<p>“Climate Change Brings Risk of More Extinctions”</p>	<p>David A. Fahrenthold <i>(Washington Post Staff Writer)</i></p>	<p>Sept. 17, 2007</p>	<p>Human Caused (“due to human-generated GHGs”)</p>	<ul style="list-style-type: none"> * Rising sea levels are swamping much of the marsh area on the Eastern shore. * The entire area could be open water in a few decades * some species have benefited from climate shifts; two have simply disappeared * the world has been getting warmer by 0.2°F every decade (<i>from UN panel</i>) in part because of carbon dioxide and other human related GHG’s. * US Geological report predicted two-thirds of the polar bear population could die out 50 years. 	<p>Trustworthy</p>

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Blue Packet					
"Antarctic Sea Ice Hit 35-year Record High Saturday"	Jason Samenow <i>Washington Post</i>	Sept. 23, 2013	Inconclusive (the article does not cite human or natural causes of global warming/climate change (wind changes)...it does cite that wind is causing increases in ice)	<ul style="list-style-type: none"> •Antarctic sea ice has grown to a record large extent for a second straight year (NSIDC) •Strengthening and converging winds around South Pole can explain 80% of the increase in ice •Wind shoves the sea ice together •No one seems to have a conclusive answer on why the winds are behaving this way •Ozone depletion (human caused) could be the reason – BUT Journal of Climate notes that computer models simulate declining – not increasing- ice due to ozone changes. •Jinlun Zhang (University of Washington Scientist) says that GHG's from human activities may eventually overcome the increase in ice 	Trustworthy (cites Journal of Climate; various University atmospheric scientists; and Climate Central)
"What Global Warming? 2012 Data Confirms Earth in Cooling Trend"	Barbara Hollingsworth	Aug. 13, 2013	Against Global Warming all together	<ul style="list-style-type: none"> •National Oceanic and Atmospheric Administration (NOAA) states that, worldwide, 2012 was among the 10 warmest years on record. •The report fails to mention that 2012 was one of the coolest of the decade – according to climate blogger Pierre Gosselin. •Arctic continues to warm with sea ice reaching record lows / Antarctica sea ice reached a record high in 2012 •NOAA reported that the "average lower stratospheric temperature (~6-10 mi above Earth) for 2012 was record or near-record cold, depending on the dataset" even while concentrations of GHG's continued to increase. •"Last year was the 8th warmest, but 7th coldest since 1998" – former Director of Meteorology, Joseph D'Aleo •Danish newspaper Jyllands-Posten quoted Irish solar expert Ian Elliott predicting that lower levels of sunspot activity over the new few years could indicate that we "may be on the path to a new little ice age." 	Somewhat Biased (Author cites evidence from NOAA that humans have caused warming; cites a climate blogger to say the opposite – not trustworthy; cites a Meteorologist – possibly trustworthy)

<p>“Glaciers Growing on Mt. Shasta”</p>	<p>Robert Felix</p>	<p>March 28, 2011</p>	<p>Against</p>	<ul style="list-style-type: none"> * The city of Mt. Shasta has broken a 108-year-old snowfall record for March with 97.9 inches, according to the National Weather Service. * “With all of this snowfall, I expect to see more glacier growth on California’s fifth tallest mountain”. (Felix) * Glaciers are also growing in Washington and Alaska, according to Felix. * Felix states that most media outlets refuse to acknowledge his claims. * Felix believes the next ice age has already begun. 	<p>Biased</p> <p>The article references facts, but is largely opinionated. The claims made by the author would be more trustworthy if they were backed up by official scientific/geological data.</p>
<p>“What Global Warming? Look at Arguments Skeptics Make- How Believers Respond”</p>	<p>Michael Totty <i>The Wall Street Journal</i></p>	<p>December 6, 2009</p>	<p>Gives viewpoints for both. The author seems to favor the view that there is global warming.</p>	<ul style="list-style-type: none"> * Overall consensus among climate scientists and policy makers is that the globe is getting warmer. * Skeptics Say: the globe is getting warmer, but not at alarming rates. There is no need to worry. <u>RESPONSE</u>: the long-term trend since the 1970’s shows warming per decade of about 0.32°F. * Skeptics Say: Natural factors are enough to account for moderate warming seen since 1900 (ex: solar output) <u>RESPONSE</u>: solar energy and periodic, natural changes affect the world’s climate but these natural factors are not enough to account for the sharp increase in temperatures since the late 1970’s. 	<p>Trustworthy</p>
<p>“Forecaster Blasts Gore on Global Warming”</p>	<p>Cain Burdeau <i>Associated Press</i></p>	<p>April 6, 2007</p>	<p>Mainly gives the viewpoint that warming is natural, but also presents ideas that suggest it does exist at all.</p>	<ul style="list-style-type: none"> * Dr. William Gray is a professor at atmospheric science department at Colorado State University. * Gray believes Al Gore’s documentary, “An Inconvenient Truth”, only created media hype. * Gray has studied global warming patterns for 24 years and has been against claims that GHG created by humans are causing the world to warm. * The IPCC reported that the world will face dire consequences to food and water supplies along with increased flooding and other dramatic weather events – Gray disagrees. * Gray states climate changes are due to natural busy and slow periods related to ocean circulation patterns. * Gray believes ocean temperatures are going to drop in the next 10 years. * an MIT professor disagrees with Gray and believes there is ample evidence that the Earth is getting hotter. 	<p>Trustworthy</p> <p>(although opinions presented could be biased)</p>