**Research Question Formative Worksheet**

Directions: Read each passage, and then determine the research question of each passage.

**Question One:**

*From NEWSELA: A study says too many people are still smoking in the United States by Associated Press*

*October 28, 2016*

Researchers analyzed 2014 health surveys. They also studied government information on smoking rates and deaths from about a dozen types of cancers linked to smoking. These included lung, throat, stomach, liver, colon, pancreas and kidney cancers, and also leukemia. The researchers estimated how many cancer deaths could be linked to smoking. Then they compared those numbers to the total number of deaths from all cancers. The results were published in a journal of the American Medical Association. Though U.S. smoking rates have been falling, 40 million American adults are still cigarette smokers, according to the Centers for Disease Control and Prevention. This federal health group also says that smoking is the top cause of preventable deaths.

*Which of these would be an appropriate research question for the above passage?*

1. How many Americans are still cigarette smokers?
2. What types of cancer deaths are linked to smoking?
3. How much has the smoking rate in the US decreased?
4. Is smoking the top cause of preventable deaths?

**Question Two:**

*From NEWSELA: Last of the Scottsboro Boys get justice long delayed: pardons by Los Angeles Times*

*November 25, 2013*

On Thursday, Alabama’s parole board pardoned the last of the long-dead Scottsboro Boys, nine black teenagers falsely accused of rape in 1931. Their case divided some residents here and united others, led to two landmark Supreme Court decisions, and helped spark the civil rights movement in the decades that followed…In the depths of the Great Depression, young people throughout the South hopped trains looking for work. That March, along the rail to Memphis, nine teenage black boys, a few white boys and two white girls hopped on at various stops in Georgia and Tennessee. Someone got jostled, a fight started, and the outnumbered white boys jumped off and went to the police. In Paint Rock, Ala., authorities boarded the train and arrested every black male, ranging from 13 to 19 years old. They also found the two white girls, who claimed they had been raped…Their nine trials had spanned just two days at the Scottsboro courthouse, before an all-white jury, argued by a defense lawyer who didn’t know Alabama law. All but the youngest teen received the death penalty.

*Which of these would be an appropriate research question for the above passage?*

1. How did the Scottsboro trial affect history?
2. How did the Scottsboro boys influence the civil rights movement?
3. Why did the Scottsboro boys lose their trial?
4. What is the Scottsboro boys trial about?

**Question Three**

*From NEWSELA: The possible effects of the elusive “Planet Nine” by Washington Post*

*October 27, 2016*

Astronomers can’t see “Planet Nine,” but now they have a new piece of evidence that it really exists. This massive planet supposedly looms at the edge of our solar system. Astronomers say it explains the strange clustering of comets and asteroids in the Kuiper belt and the unusual way that these objects orbit the sun. Scientists now say that Planet nine adds “wobble” to the solar system, tilting it in relation to the sun. Because Planet Nine is so massive, and because its orbit is tilted compared with the other planets, “the solar system has no choice but to slowly twist out of alignment,” says Baily, the study’s lead author. In other words, Planet Nine’s gravity is having a big effect on the rest of the solar system.

*Which of these would be an appropriate research question for the above passage?*

1. What affect does gravity have on our solar system, planets, and asteroids?
2. Is there other life on Planet Nine?
3. Is there a ninth planet hiding from Earth?
4. Is the elusive “Planet Nine” affecting the rest of our solar system, and how so?

**Question Four**

*From NEWSELA: A rain forest plant shows its true colors (blue) when in survival mode by Washington Post*

*October 26, 2016*

Imagine a place where the oceans were full of purple algae, and plants on the forest floor glowed a gorgeous, spectacular blue. This place was Earth. It may be assumed that plant life on our planet must be green. Plants make energy using a process called photosynthesis, capturing the sun’s energy to make food using chlorophyll, and chlorophyll is green. That hasn’t always been the case, though, students have suggested that the earliest photosynthetic plants were plum-colored, because they relied on photosynthetic chemicals that absorbed different wavelengths of light.

*Which of these would be an appropriate research question for the above passage?*

1. What is photosynthesis and why do plants use it?
2. What color are chlorophylls?
3. How have plants evolved the way they generate food?
4. What colors were plants during the dinosaur age?

**Question Five**

*From NEWSELA: Scientists race to Antarctica to study its most threatened glacier by Washington Post*

*October 26, 2016*

An enormous and remote Antarctic glacier is losing ice at an accelerating pace. This could trigger a major rise in sea levels before the end of the century. On Thursday, U.S. and British science agencies announced a multi-million dollar research mission to study the glacier. The move reflects the growing sense of urgency around the world about understanding one of the biggest consequences of a warming earth – the melting of polar ice and its impact on the oceans. The glacier in question is named Thwaites. It acts as a kind of linchpin, or connecting hinge, to parts of the West Antarctic Ice Sheet. If the glacier continues to retreat, it could enter far deeper waters. Warming waters are weakening the glacier, causing portions to break off. A retreat has already begun, and the Thwaites grounding line has already retreated inland 8 miles in twenty years. Vast additional volumes of the glacier and the West Antarctic Ice Sheet rest above sea level, and this is where the major contribution to sea level rise would come from. According to the NSF, Thwaites is already contributing an astonishing 10% of all global sea level rise. The fear is just how much this could increase. Thwaites itself could ultimately contribute around 2 feet to the global sea level if it were to be lost entirely.

Which of these would be an appropriate research question for the above passage?

1. How much money will it take to stop a glacier from melting?
2. How will a melting glacier affect sea levels around the world?
3. How much of the glacier has already melted?
4. How can we stop global warming and rising sea levels?