Reading AM1 Day 9

- Read for 30 minutes parent's signature _____
- Complete page on conflict

Types of Conflict

Directions: Read the brief description of each plot. Identify the protagonist and antagonist and determine the type of conflict.

1. As far back as Brendon could remember, he only wanted one girl, Alice Dailey. To Brendon, she was perfect in every way. There was just one problem: every time Brendon tried to talk to her, he felt butterflies in his stomach and then he threw up in his mouth. To overcome his fear, Brendon enlists the help of the coolest guy in the school, Max Mansion, to teach him how to talk to girls. Will Brendon be able to summon the nerve to ask out Alice with Max's help, or will he just puke in his mouth again?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

2. Justin didn't want to get involved in the struggle for civil rights. He just wanted to go to school. Unfortunately, many people in the community did not want Justin to go to their school because of his African American heritage. A simple walk to school becomes a powerful march for rights as Justin, a group of civil rights leaders, and millions of supporters make Justin's case the centerpiece in a heated battle for equal rights.

Protagonist: _____ **Antagonist**: _____

Type of Conflict

3. Kelly just wanted a cup of coffee, but the coffee machine in the office is on the fritz. This inconvenient situation turns into an epic battle as Kelly won't take "It's broke" for an answer. Join Kelly as she spends the better part of her workday fiddling with the coffee maker in a desperate attempt to get caffeinated.

Protagonist: _____ **Antagonist**: _____

Type of Conflict

4. Jerome and his family are vacationing on an island in tropical paradise. The waters are clear, the skies are big, and sand is clean. Suddenly, when a rumble shakes Jerome's sister off of her beach chair, Jerome remembers that the island on which they are staying is one big volcano. Soon the mountain releases its wrath and the eruption threatens every person on the island. Will Jerome and his family ever make it back home?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

5. Kyle thought it was a little weird this morning when his neighbor tried to eat him, but it wasn't until about half way through first period that he realized why: Kyle's community is under a full-scale zombie attack. Kyle escapes from the zombie principal's office to find help, but the school's former bullies are now zombies. Kyle is going to have to get creative to survive this one.

Protagonist: _____ **Antagonist**: _____

Type of Conflict

6. Ever since Ziggy lost his twin brother in a tragic car accident, Ziggy hasn't been the same. He has been dragging his feet through life with a glazed look in his eyes. His grades have dropped, he doesn't want to hang out with his friends or family anymore, and he barely leaves his bedroom. Ziggy's mother cannot bear to lose two sons, so she sends Ziggy to an intensive survival bootcamp program far away from home. Will Ziggy learn that life must go on?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

7. Buck is the most skilled banjo player in town and is praised by all, until Chuck arrives from the big city. Soon Buck's fans are going to Chuck's showings instead and Buck decides to settle it. Now Buck must compete with Chuck in a contest of dueling banjos to determine who is the greatest and who will leave town for good. Will Buck's raw, grassroots twang overcome Chuck's more polished big city style?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

8. Willow loved living by herself in the middle of the woods, until things started moving around her cabin all by themselves. It started with a book falling from the shelf, then a light flickering on and off, and now it's gotten out of control. Willow contacts a medicine man who lives near her, and he informs her that she is dealing with ghosts. Can Willow make peace with these spirits or will they make pieces out of her?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

9. Alice is surrounded by junk. Everywhere she looks, people are littering, tossing recyclable materials in the garbage, and wasting perfectly good resources that could be reused. Alice decides to take a stand against this. She and a small group of environmentally conscious friends create an antilittering campaign. When one of their videos goes viral, Alice finally gets the attention that she needs to make her point. Will she be able to affect change?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

10. After Kylie and her friends run out of gas on a road trip, they find themselves stranded in the middle of the desert with nobody around for miles. With no phone signal, little water, and the brutal desert sun pounding down on them, Kylie and her friends make a desperate attempt to find water. Will they survive the harsh elements?

Protagonist: _____ **Antagonist**: _____

Type of Conflict

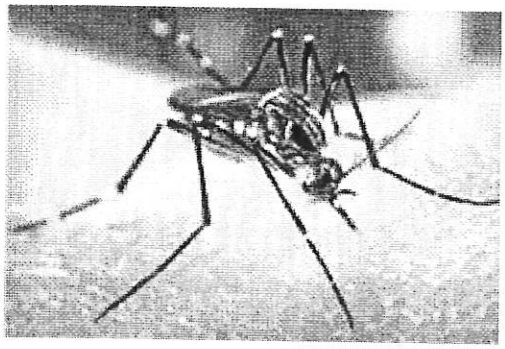
Buzz Off

by Kirsten Weir

Can Bioengineering Mosquitoes Stop The Spread Of Tropical Diseases?

It's a bright, sunny day in the Caribbean. You roll out your beach towel and settle down in the sand when- *drat!*-a mosquito interrupts the serenity. You reach over and swat it.

If you happened to be on the island of Grand Cayman not long ago, you needn't have bothered. In a test on the island, scientists released millions of lab-created mosquitoes. The insects were engineered to self-destruct. No need for swatters.



AP Photos

A female Aedes aegypti mosquito

Although a tropical vacation without biting bugs sounds like a true paradise, there's a bigger goal at stake. Mosquitoes transmit *dengue fever*, a devastating and sometimes fatal disease. No vaccine or cure for it exists. Could tailor-made mosquitoes be the answer?

No Fly Zone

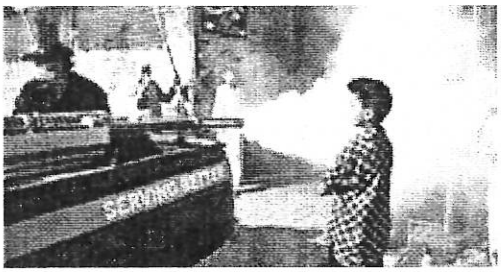
Dengue fever strikes about 100 million people each year in tropical and subtropical regions. It's also called *breakbone fever* for the joint and muscle aches and the intense headaches it causes. In some cases, the fever worsens into *dengue hemorrhagic fever*, which leads to internal bleeding, organ damage, and possible death.

AP Photos

Patients suffering from dengue fever lie on cots in a military hospital in Bogor, Indonesia.

Dengue fever is caused by a virus, which the mosquito *Aedes aegypti* spreads through its bite. Until now, the best way to control the disease has been to prevent contact between mosquitoes and humans, says Anthony James, a molecular biologist at the University of California, Irvine. One way to do that is to put up window screens. Another is to douse people and places with *insecticides* (chemicals that kill insects). Unfortunately, insecticides can harm other organisms, including beneficial insects. And mosquitoes can develop a resistance to them over time.

James believes there's a better option: *genetically engineering* the *A. aegypti* mosquito. Genetic engineering is the process of manipulating an organism's *deoxyribonucleic acid* (*DNA*). James tweaked *A. aegypti* by adding some extra *genes* to its DNA. Genes are short DNA segments that are responsible for individual traits in an organism. The genes that James added prevent flight muscles from forming in female mosquitoes. "Only the adult females feed on blood and therefore are responsible for transmitting diseases," he says. Unable to fly, the engineered females can't mate, bite, or spread dengue fever.



Umar Qayyum/Xinhua/Photoshot/Newscom

Fumigating a Pakistani city to kill dengue-transmitting mosquitoes

In order to get flightless females, James actually engineered male skeeters instead. The *transgenic* (genetically engineered) males mate with females and pass on their extra genes to their offspring. Any female mosquitoes born to those fathers are unable to fly and, therefore, unable to mate. As the genes spread, the population dwindles. "The idea is to get a zero population," James says.

So far, James has tested his mosquitoes in the lab and in large outdoor mesh cages in Mexico. He's now working on securing approval to test the engineered mosquitoes in the wild. Meanwhile, Oxitec, a British company James has collaborated with, has marched ahead and released engineered mosquitoes into nature.

Into The Wild

The Oxitec mosquitoes are engineered in a slightly different way from those James designed. The males are unable to produce healthy offspring. In 2009, the company released a batch of those males into a small area of Grand Cayman. Wild females mated with the engineered males, and their offspring died before they reached adulthood. Within three months, the mosquito population in the area fell by 80 percent.

Mohsin Raza/Reuters

A young man being treated for dengue fever in a hospital in Lahore, Pakistan

Despite the success of that first experiment, it may be awhile before transgenic mosquitoes are released on a bigger scale. The next step, James says, is to prove that the dip in a mosquito population actually reduces the number of dengue fever cases.

An even bigger problem may be dealing with critics who are wary of releasing transgenic organisms into the environment. Oxitec reportedly chose Grand Cayman for the experiment because of weak regulations there. Most other countries, including Mexico, where James works, have stricter policies about releasing transgenic organisms.

Genetic engineering has been going on for years. In fact, much of today's packaged food contains genetically engineered corn or soy. Still, many people are suspicious of genetic engineering. The environmental organization Greenpeace, for instance, likens transgenic organisms to "a giant genetic experiment" that could have unforeseen consequences for the environment and for human health.

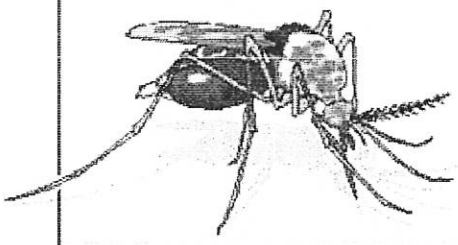
James is sensitive to the criticisms. But, he says, "we don't think there are risks." For one thing, the engineered mosquitoes won't persist in the environment indefinitely. After all, they're designed to die. And in most of the world, *A. aegypti* is a nonnative species, he adds. Getting rid of the buzzing pests would actually return those habitats to a more natural state.

If the experiment is a success, dengue fever may be just the start. "Mosquitoes can transmit a number of diseases," James says. The most devastating is malaria, which kills close to 1 million people every year. Unlike dengue fever, which is spread by just one mosquito species, more than 30 species can transmit the malaria parasite. That makes it a trickier target for genetic engineering, but James contends the goal is within reach.

"We develop vaccines and medications, but for some diseases we have no tools," he says. "It's important that we look at all the science available to find something that will actually work."

Fever Chart

Dengue fever is a viral disease that affects about 100 million people a year.



The virus is transmitted to humans via the bites of female *Aedes aegypti* mosquitoes. The mosquitoes, in turn, acquire the virus from feeding on the blood of infected people.

Mortality Further infection by different strains of the virus can lead to dengue hemorrhagic fever (DHV), a potentially lethal complication.

- 2.5% of DHV cases are fatal
- 1% are fatal if treated immediately
- 20% are fatal if left untreated

Transmission zones Dengue fever occurs in tropical and subtropical countries, predominantly in urban and semi-urban areas.

About 2.5 billion people are potentially at risk.

Southeast Asia and the Western Pacific are the most seriously affected areas.

AFP/Newscom; Source: WHO

Name: _____ Date: _____

1. Which of the following is not a symptom of dengue fever?

A. internal bleeding

B. blindness

C. fever

D. joint and muscle aches

2. James and other molecular biologists are genetically engineering mosquitoes in order to solve what problem?

A. the irritating noise of buzzing mosquitoes and the itchiness of mosquito bites

B. the spread of insecticides, which are harmful to the environment

C. flight muscle damage in female mosquitoes, which prevents them from flying

D. the spread of dengue fever, an infectious disease spread by mosquitoes

3. Which of the following conclusions about science is *best* supported by the passage?

A. Science can have unforeseen consequences for the environment and for human health.

B. Science is a useful tool for understanding the world around us but can do nothing to solve problems.

C. It is interesting to study science so that we can better understand the problems humans and the environment face.

D. If used responsibly, science can be used to help solve problems humans and the environment face.

4. Read the following sentences and answer the question below:

"For one thing, the engineered mosquitoes won't persist in the environment indefinitely. After all, they're designed to die."

In this context, what does the word **indefinitely** mean?

A. accidently

B. aggressively

C. slowly

D. forever

5. The primary purpose of this passage is to

A. persuade the reader to oppose genetic engineering

B. warn people about dengue fever

C. advertise a vacation to the Grand Canyon

D. explain a problem and identify possible solutions

6. What are two consequences of spraying *insecticides* to get rid of mosquitoes?

7. How are the Oxitec mosquitoes different from the mosquitoes that Anthony James engineered?

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

James understands the criticism of transgenic organisms, ____ he believes his genetically engineered mosquitoes will not be harmful to the environment.

A. because

B. but

C. so

D. before

Day 9 AMI Packet

Writing

Revise your free write for…

Have revision of word choice (8-10 words)? Must be bolded... Have your name, title, double line spacing, font 12, Times New Roman and paragraphs are indented?
Incorporated writing skill of the week into the writing or revision of writing piece? • varying sentence lengths (simple, compound and complex) • Add **(prepositional phrases)** to add clarity and details

Social Studies

Finish and look over your close read and make sure it is finished thoroughly for all three reads.

Name : _____ Score : _____

Teacher : Emison (math) Date : _____

AMI day 9

*only do 5 problems

Order of Operations

1) $(49 - 3^2) - (26 - 6)$

2) $(42 - 2) - 5 - 6^2$

3) $(2 + 2)^2 + (12 - 4)$

4) $(8 \times 8 - 6^2) - 9$

5) $7 \times (13 - 4) + 8^2$

6) $(44 - 4) - 20 + 7^2$

7) $6 \times (13 - 6) + 6^2$

8) $(5 \times 8 - 4^2) + 8$

9) $(96 - 6^2) - (24 - 4)$

10) $(12 - 2)^2 + (12 - 4)$