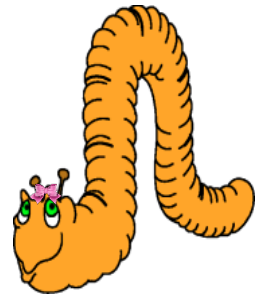


THROUGH THE WORM HOLE



AP Computer Science A topics

- I. Object Oriented Program Design
- II. Program Implementation

Reading Standards for Literacy in History/Social Studies L6-8RHSS2, RHSS4, RHSS7, RHSS10

Math

Write expressions in equivalent forms to solve problems

MGSE9-12.A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

Science

HS Biology SB4

Hi! We are Walter and Wilma Teredo! We have travelled to make our home on the CSS Georgia. The CSS Georgia is situated in the Savannah River. We are interested in learning a little bit about the history of our new home and how it came into existence.

Provide a 2 paragraph summary of how the CSS Georgia came into existence and her demise using the following resources.

[CSS Georgia--Resource #1](#)

[CSS Georgia--Resource #2](#)

Provide a 2 paragraph summary of why the CSS Georgia was being raised and how it was being done using the following 2 resources.

[CSS Georgia--A Rare Recovery](#)

[A Wreck Reborn](#)

Wow!!! People were very surprised when they found us in our new home. We were originally not there when the CSS Georgia was first being explored ([The Worm that Eats Ships](#)). Your job is to research the life cycle of the Teredo Worm, using the following link [Teredo Worm](#), to aid in the construction of the following program requirements.

Create a main class `cssGeorgia`, which uses a class `TeredoPopulation` that simulates the growth of the **teredo worm** population. The constructor takes the size of the initial teredo worm (Walter and Wilma) population. Also, create a default constructor that sets the population to zero. The `TeredoPopulation` class should have the following methods:

- a. `breedingSeason` (this methods simulates the breeding season based on information from [Teredo Worm](#))
 - you must thoroughly comment to provide justification for your formula
 - b. `longevityCycle` (this method simulates end of the worm's life)
 - you must thoroughly comment to provide justification for your formula
 - c. `getWorms` (returns the current number of worms on the Georgia)
 - d. `toString` will print out the object and return it
- The boat starts with 2 worms (Walter and Wilma). Have your main class `breedingSeason`, `longevityCycle`, and print the worm count for a ten year cycle.

Note—all programming expectations apply!