

## 10 SCIENCE BIOLOGY ASSIGNMENT: GENETICALLY MODIFIED CROPS 2015

Name: \_\_\_\_\_

Form: \_\_\_\_\_



Teacher: Miss Cerny

Due date: \_\_\_\_\_

**Aim:** This assignment will allow you to research information about genetically modified food.

**Hint:** page 25-26 of your text book has information you can use 😊

### **Plagiarism:**

You must write in your own words not copy sentences word for word from another student or another source.  
Plagiarising = instant zero on assignment and you will have to re-do it.

### **Assessment policy:**

Have sick note/legitimate reason from parent = new negotiated due date.

Assignment not submitted on due date and no sick note from parents = -20% mark

Assignment not submitted on new negotiated due date = -40% mark

+ Letter home to parents.

+ Must attend academic completion to complete assignment.

**OR**

Submit assignment to student services before academic completion date and academic completion not necessary.  
Academic completion not attended = zero on assignment + Saturday detention.

**If you know that you cannot submit your assignment on the due date, let me know BEFORE the due date or just email me your assignment the night before/day it is due and bring the hard-copy in the following day.**

My email is: s.cerny@aranmore.wa.edu.au

ANSWER KEY

1. In your own words, write a few sentences that **explains** what genetic modification is.

(4 marks)

The use of modern biotechnology techniques to change the genes of an organism.

Using genes from one organism and inserting them into another.

Choose either GM canola OR Golden rice

2. Name of your GM crop: \_\_\_\_\_

3. **Explain** how your chosen crop has been modified (changed).

What is a characteristic that it has now that it didn't have before it was modified?

(3 marks)

Golden rice - beta-carotene is added to it which converts to vitamin A in the body.

GM canola - is resistant to herbicide so when it is sprayed the weeds die but the canola doesn't.

4. Describe two advantages of genetically modifying your chosen crop.

one mark  
each advantage

(2 marks)

Golden - Rice -

- Has beta-carotene which converts in the body to vitamin A - reducing risks of blindness.

GM Canola.

- allows growers to

- Resistant to herbicide
  - Reduced production costs
- compete in international markets

5. Describe three benefits of GM crops in general (not including the benefits you described in question 4). (3 marks)

- GM crops usually more resistant to disease.
- GM crops can grow in less space.
- GM crops can provide greater yield.
- GM crops need less pesticide.

one mark each

6. Some groups of people are against genetically modified crops (anti-GM). **Describe** three claims these groups of people make against GM crops and for each one explain whether or not you think it is valid (rational, justifiable) and **explain** why/why not. (6 marks)

Claim 1: (1) claim

(1) opinion

Claim 2: (1) claim

(1) opinion

Claim 3: (1) claim

(1) opinion

7. **Decide** whether you support the continued use of GM foods in Australia and **justify** your decision (explain why).  
(3 marks)

whether they support or not (1)

Explain why (2)

8. Look at the following groups in Australia and state whether they are for growing GM crops in Australia or against growing GM crops in Australia. For each group, write a quote you found on the website that supports your answer. (10 marks)

Group	Pro-GM or anti-GM	Evidence to support your answer
Crop Life Australia <a href="http://www.croplifeaustralia.org.au/">www.croplifeaustralia.org.au/</a>	pro-GM	'quote'
Biotechnology Industry Organization <a href="http://www.bio.org/">http://www.bio.org/</a>	Pro-GM	'quote'
Producers Forum <a href="http://www.producersforum.net.au/index.htm">www.producersforum.net.au/index.htm</a>	Pro-GM	'quote'
Ag Bio World <a href="http://www.agbioworld.org/">http://www.agbioworld.org/</a>	pro-GM	'quote'
True Food Network <a href="http://www.truefood.org.au/index.php">www.truefood.org.au/index.php</a>	Anti-GM	'quote'

## Reference list

Minimum of two references.

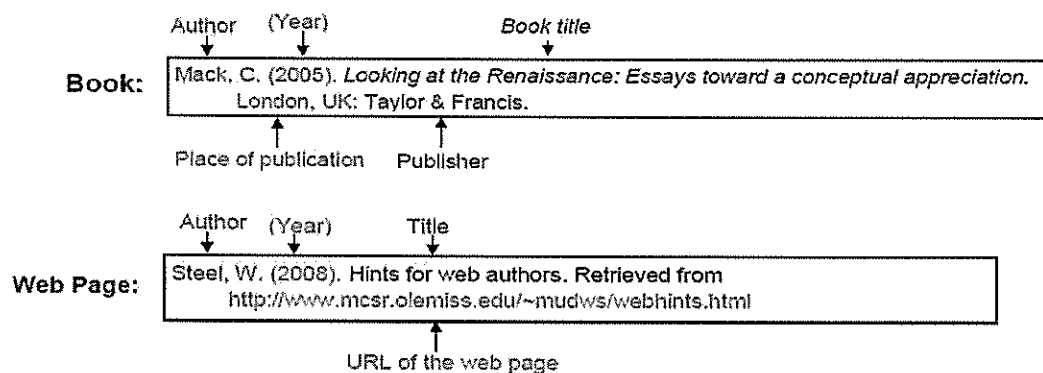
(1 mark)

Minimum of two different sources (book, encyclopedia, video, website, journal, magazine, newspaper).

(1 mark)

Referenced using the style below (pg. 180 of your diary has more information).

(1 mark)

[illegible]

Assignment is neatly written or typed.

(1 mark)

Correct grammar and spelling.

(1 mark)

**Total mark:**                      /35                      %

**Teacher comments:**

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