

Create a Genetically Modified Pig

Review the information in the presentation about genetic modification or research “genetically modified pigs and xenotransplantation” on your own. The pigs’ genes were altered to serve a medical need, increasing options for patients needing new organs while reducing organ rejection.

Your task is to create a new Genetically Modified Pig that will help the world’s growing population.

GMO Design Checklist

Design: (75 pts)

- A unique name has been created.
- At least 2 foreign genes have been used and an explanation has been included for the purpose of inserting these genes.
- The organism is creatively designed to help the environment (or at least it will not hurt our precious environment.)
- The GMO has the potential to help feed our growing population.
- Societies concerns are well thought out and include ideas we discussed in class.
- The picture is creative, a mixture of the different organisms and has color.
- The slogan is included with the picture.

Presentation: (25 pts)

- Clear, loud voice while presenting.
- Each question on the worksheet is addressed during the presentation.
- The picture is shown to the class.
- Questions are answered to the best of the presenter’s knowledge.

New Organism Article: 100 pts

- I. Introduction
 - A. Attention grabber (General statement, question, or statistic) *Hint, see if either of these questions can help you get started.
 - a. Is the demand for food greater than the supply?
 - b. What happens when the world can no longer feed itself?
 - B. Introducing the organism
 - a. How exactly the organism was created
 - b. Description of the organism
 - c. Name (What is it called)
 - d. Why was the organism created?
- II. Habitat or biome (describe where it lives). How does that effect how it grows, and helps to feed the growing population?
- III. Food source (Predator, prey, carnivore, herbivore, etc.)
- IV. Hunting techniques (stalk, ambush, run down, infrared, heat sensor, radar, sonar)
- V. Mating and gestation period
- VI. Life span
- VII. Conclusion

Article Rubric

Project is on topic - 10 pts

All pieces of the introduction are complete - 10 pts

All pieces from the 2nd paragraph about the organism’s niche are included - 10 pts

All pieces from the 3rd paragraph about the life span are included - 10 pts

The conclusion wraps up the article nicely - 10 pts

Student writes with ownership and pride - 10 pts

It is seen that project was completed independently with original thought, and the writing is creative and completed neatly - 15 pts

Proper spelling, punctuation & capitalization - 15 pts

The writing was completed on time - 10 pts

Your task is to **create a new Genetically Modified Pig** that will help the world’s growing population.

1. What is the name of your pig? _____
2. What different organisms (genes) have you added to make your “new and improved” pig?
How does each gene help your organism to be productive? (answer these questions below)

Source of the genes (organism)	Purpose of the gene

3. Explain the benefits (environmental, nutritional, medicinal...) of your modified pig?

4. Explain the characteristics that help the world’s growing population?

5. What are some concerns people might have about the new organism?

6. Draw a picture of your new organism, write the name & color it.

7. Create a slogan to help promote your organism. Write it under your drawing and below.
