

تم تحميل هذا الملف من موقع المناهج الإماراتية



## أوراق عمل الدرس الثالث Selection Artificial من الوحدة الثانية منهج انسابير

موقع المناهج ← المناهج الإماراتية ← الصف الثامن ← علوم ← الفصل الأول ← أوراق عمل ← الملف

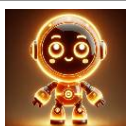
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ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل  
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي للمدرس

المزيد من مادة  
علوم:

إعداد: Zewin Adham

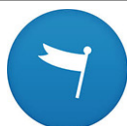
## التواصل الاجتماعي بحسب الصف الثامن



الرياضيات



اللغة الانجليزية



اللغة العربية



التربية الاسلامية



المواد على تلغرام

صفحة المناهج  
الإماراتية على  
فيسبوك

## المزيد من الملفات بحسب الصف الثامن والمادة علوم في الفصل الأول

مراجعة الوحدة الثالثة التفاعلات الكيميائية والمعادلات الكيميائية متبوعة بالحل

1

حل أسئلة مراجعة عامة للوحدة الثانية العناصر والروابط الكيميائية

2

أسئلة مراجعة عامة للوحدة الثانية العناصر والروابط الكيميائية

3

ملخص الدرس الثالث التفاعلات الكيميائية والتغيرات في الطاقة من الوحدة الثالثة

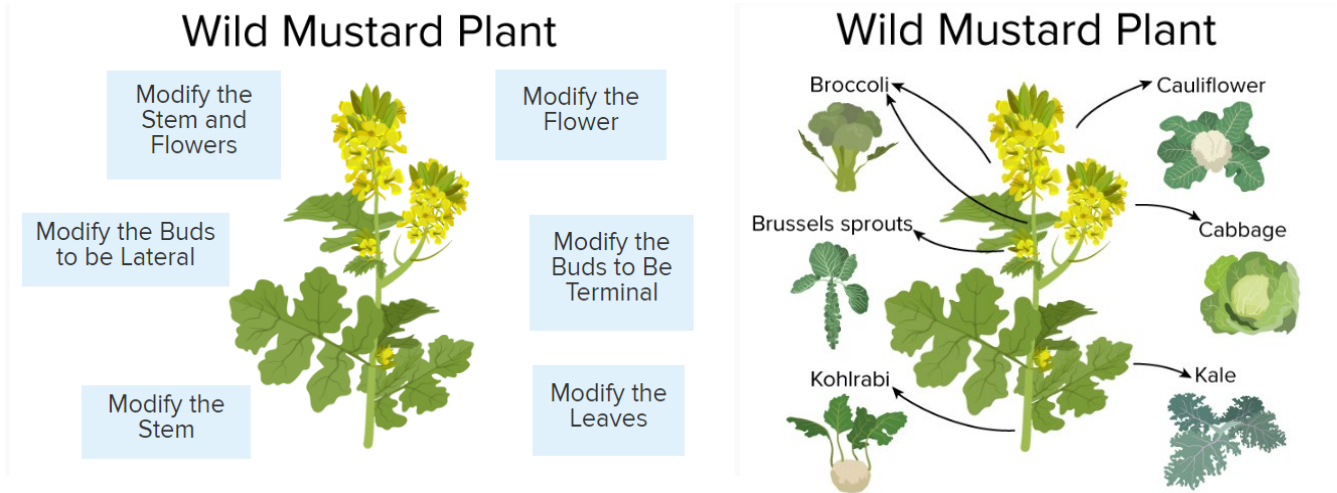
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## المزيد من الملفات بحسب الصف الثامن والمادة علوم في الفصل الأول

ملخص الدرس الثاني أنواع التفاعلات الكيميائية من الوحدة الثالثة

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### Lesson 3: Artificial Selection



**Which of the following statements best describes selective breeding?**

- A) A natural process where organisms adapt to their environment.
- B) The selection and breeding of organisms by humans to enhance desirable traits.
- C) A process where traits change over many generations due to environmental pressures.
- D) A method of breeding that leads to reduced diversity in organisms.

**How does selective breeding differ from natural selection?**

- A) Selective breeding is a random process, while natural selection is not.
- B) In selective breeding, nature selects the traits, whereas in natural selection, humans select the traits.
- C) In natural selection, nature selects the traits, whereas in selective breeding, humans select the traits.
- D) Both processes are controlled by nature and are not influenced by humans.

**Which of the following is an example of a product of selective breeding?**

- A) A wild species of rose found in a forest.
- B) A naturally occurring species of deer.
- C) A cow bred to produce high levels of milk.
- D) A naturally occurring type of fish in a lake.

**What is the primary purpose of selective breeding?**

- A) To observe natural selection in action.
- B) To allow organisms to adapt to changing environments.
- C) To produce organisms with traits that are advantageous or desirable for humans.
- D) To increase the mutation rate in a population.

**Which of the following is NOT a potential outcome of selective breeding?**

- A) Increase in desirable traits in organisms.
- B) Increased resistance to diseases in plants and animals.
- C) Enhanced genetic diversity in a population.
- D) Production of organisms with specific colors or sizes.

**What is a possible disadvantage of selective breeding?**

- A) It produces organisms that are more adaptable to the environment.
- B) It may lead to a reduction in genetic diversity within a population.
- C) It can result in naturally stronger organisms over time.
- D) It increases the mutation rate in an organism.

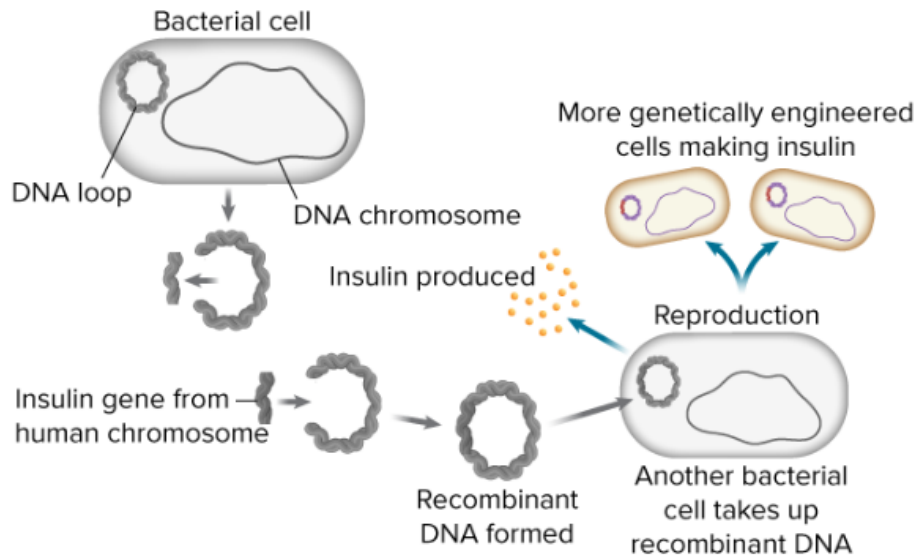
**Why might farmers use selective breeding with their livestock?**

- A) To let the animals adapt to natural environmental changes.
- B) To enhance traits such as milk production, meat quality, or disease resistance.
- C) To observe the natural selection process in action.
- D) To increase the randomness of genetic traits in the livestock population.

**Selective breeding is also known as:**

- A. Natural selection
- B. Artificial selection
- C. Genetic modification
- D. Genetic mutation

## Genetic Engineering



### What is genetic engineering?

- A) The natural selection of traits in organisms.
- B) The process of changing the arrangement of DNA in a gene using biological and chemical methods.
- C) The natural reproduction of organisms with desirable traits.
- D) The cloning of entire organisms for research purposes.

### What are genes?

- A) Cells that produce proteins in the body.
- B) Sections of DNA that direct cell activities.
- C) Proteins responsible for carrying oxygen in the blood.
- D) The outer layer of chromosomes that protect DNA.

### Which of the following is an application of genetic engineering?

- A) Production of antibiotics using chemical synthesis.
- B) Treating cancer with radiation therapy.
- C) Creating large volumes of medicine by modifying organisms.
- D) Treating Type 1 diabetes using regular insulin injections.

**What is recombinant DNA?**

- A) DNA that is naturally produced by the body to fight infections.
- B) DNA made by inserting a useful segment of DNA from one organism into another.
- C) DNA that cannot replicate due to mutations.
- D) DNA found only in bacterial cells.

**How is recombinant DNA used in the production of human insulin?**

- A) By extracting insulin directly from human pancreas cells.
- B) By inserting human insulin genes into bacteria, which then produce insulin.
- C) By altering the DNA of humans to produce more insulin naturally.
- D) By combining animal and human DNA to create a hybrid insulin.

**Why might genetic engineering be important for people with Type 1 diabetes?**

- A) It helps their pancreas produce insulin naturally.
- B) It allows them to reduce their carbohydrate intake.
- C) It produces large quantities of insulin that their body cannot produce.
- D) It eliminates the need for insulin injections.

**What role do bacteria play in the process of recombinant DNA?**

- A) They are used to break down harmful genes in the body.
- B) They serve as hosts to produce proteins or chemicals, such as insulin.
- C) They act as carriers to transport recombinant DNA to other organisms.
- D) They are engineered to resist infections naturally.

## Genetically modified organism



### What are genetically modified organisms (GMOs)?

- A) Organisms that naturally adapt to harsh environmental conditions.
- B) Organisms whose genetic material has been altered using genetic engineering techniques.
- C) Organisms that are a product of natural selection.
- D) Organisms that have been crossbred for desirable traits over many generations.

### What is one benefit of genetically engineered tomatoes?

- A) They are naturally resistant to all pests without genetic modification.
- B) They can be picked while green and transported long distances before ripening.
- C) They produce seeds that can grow in any climate.
- D) They have a higher nutritional value than regular tomatoes.

### How can genetic engineering help protect crops from insect pests?

- A) By making the crops grow faster and outcompete the pests.
- B) By adding genes that make the crops toxic to specific insects.
- C) By reducing the nutritional value of the crops, making them unattractive to pests.
- D) By eliminating the need for natural sunlight in crop growth.

### Which of the following is **NOT** a benefit of genetically modified organism (GMOs)?

- A) Reduce cost and increase the amount of crops picked
- B) Resistance to particular insects, pests, and disease
- C) Developing crops that mature faster and can ripen after being picked
- D) Health risks from the consumption of genetically modified crops

Humans can change a species' \_\_\_\_\_ by choosing which organisms will reproduce.

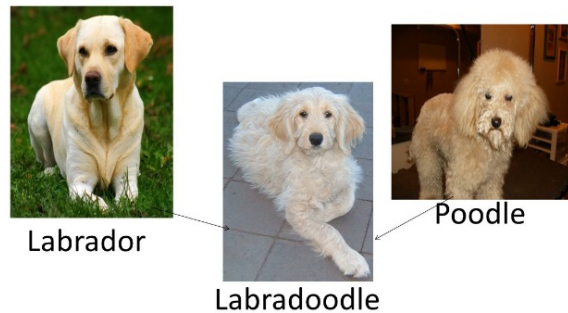
- A) food                      B) traits                      C) predators                      D) sex

Humans can change an organism's \_\_\_\_\_ by choosing which organisms will reproduce.

- A) food                      B) genes                      C) predators                      D) sex

Humans can influence traits in dogs by selective breeding to get a designed dog breed,

see an example in the figure below.



Which of the following is **correct**?

- A. Genetic engineering has been used to produce the Labradoodle dog breed
- B. The offspring (Labradoodle) has a completely different traits than the parents (Labrador and Poodle)
- C. The offspring (Labradoodle) is an example of genetically modified organism (GMOs)
- D. Artificial selection has been made to influence trait and produce the Labradoodle dog breed





### Three-Dimensional Thinking

A student prepared this chart comparing examples of natural selection with artificial selection.

Natural Selection Traits That Benefit the Species	Artificial Selection Traits That Directly Benefit Humans
<ul style="list-style-type: none"> <li>• Ability to escape predators</li> <li>• Ability to resist droughts</li> </ul>	<ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>

2. Which can the student add in the column under artificial selection to complete the chart?

1. ability to grow large kernels of corn
2. ability to grow fruit that can be stored for long periods
3. ability to catch larger prey
4. ability to produce milk for offspring

A 1 and 3

B 1 and 2

C 2 and 3

D 3 and 4

3. Golden rice is a type of rice that has been altered to contain vitamin A. This yellow rice is beneficial to populations that typically do not receive enough vitamin A from other sources. How is golden rice classified?

A genetically engineered

B genetically modified organism

C altered through gene therapy

D A and B