

تم تحميل هذا الملف من موقع المناهج الإماراتية



almanahj.com

موقع
المناهج الإماراتية

*للحصول على أوراق عمل لجميع الصفوف وجميع المواد اضغط هنا

<https://almanahj.com/ae>

* للحصول على أوراق عمل لجميع مواد الصف السادس اضغط هنا <https://almanahj.com/ae/6>

* للحصول على جميع أوراق الصف السادس في مادة علوم ولجميع الفصول, اضغط هنا [6science/ae/com.almanahj//:https](https://almanahj.com/ae/6science)

* للحصول على أوراق عمل لجميع مواد الصف السادس في مادة علوم الخاصة بـ الفصل الأول اضغط هنا

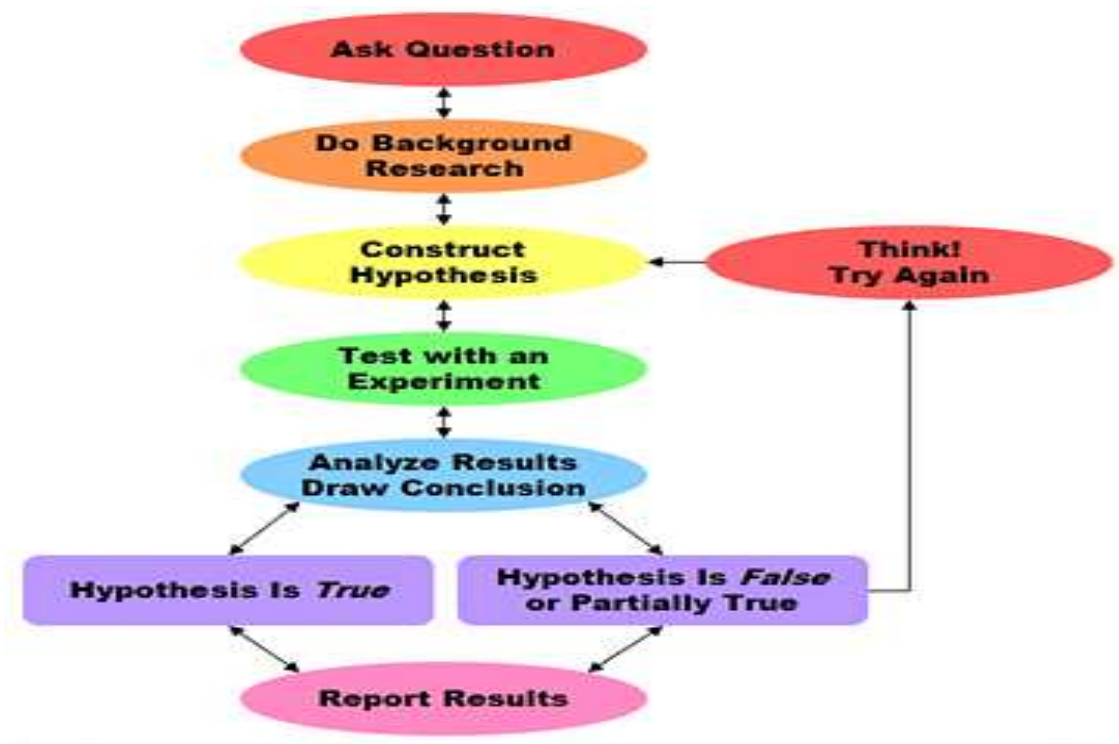
<https://almanahj.com/ae/6science1>

* لتحميل كتب جميع المواد في جميع الفصول للـ الصف السادس اضغط هنا [grade6/ae/com.almanahj//:https](https://almanahj.com/ae/grade6)

للتحدث إلى بوت المناهج على تلغرام: اضغط هنا [bot_almanahj/me.t//:https](https://t.me/bot_almanahj)

ELITE Stream
ASP Grade 6
Science
Mid – Term Review Sheet

Scientific Method: (Methods of Science)



Dependent Variable: Car is Dependent variable.
It requires petrol. The variable that depend on another variable.



Independent Variable: The variable that supports other variables.
Example: Petrol which is used to run the car. The variable that is independent and supports another variable.

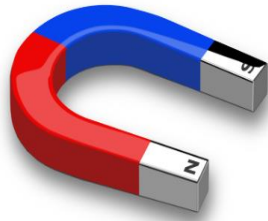
Tools of Technology:

Magnets:

- A magnet is a material or object that produces a magnetic field.



Bar Magnets



Horse Shoe Magnet



Disc Magnet



Ring Magnet



Manufactured materials are when natural resources are altered by processes that do more than change their size or shape.



Processed materials are natural resources that have been changed into a more useful form. They include lumber from trees, leather from animals.



Raw materials are materials in their natural state. They include plants, rocks etc.

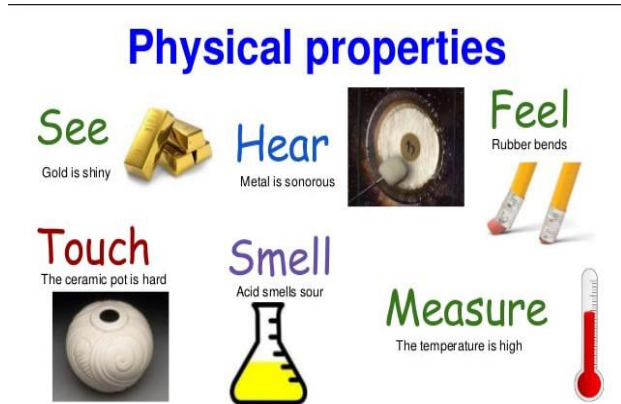


Synthetic materials are created artificially. human-made rubber, and plastics are all synthetic materials.

1. Resource
resource is a source of supply or support.

Materials and their Properties:

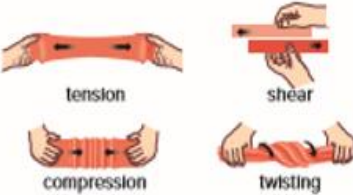
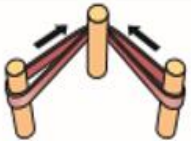

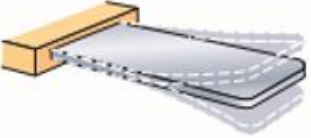
1. Physical Property
Physical property is a characteristic that can be observed or measured without changing the identity of the material.
2. Chemical Property
ability or inability of a substance to combine with or change into one or more new substances.



Chemical Property

3. Mechanical Property
Mechanical properties are characteristics that determine how a material reacts to forces.
 - a. **Strength**—The strength of a material is determined by how it withstands forces such as tension, compression, shear, and twisting.
 - b. **Elasticity**—Elasticity is a material's ability to stretch out of shape and return to its original shape.

- c. **Hardness**—The hardness of a material is determined by a material’s ability to withstand scratches, dents, and cuts.
- d. **Flexibility**—This characteristic is the ability to resist breaking due to bending.

 <p>tension shear compression twisting</p>	<p>Strength—The strength of a material is determined by how it withstands forces such as tension, compression, shear, and twisting.</p>
	<p>Elasticity—Elasticity is a material's ability to stretch out of shape and return to its original shape.</p>
	<p>Hardness—The hardness of a material is determined by a material's ability to withstand scratches, dents, and cuts.</p>
	<p>Flexibility—This characteristic is the ability to resist breaking due to bending.</p>

4. Composite Material

Composite material is a mixture of two or more materials —one layered in the other

5. Alloy

An alloy is a mixture of two or more metals.



Alloy



Composite Material

Technology Systems:

1. System

A system is a group of parts that work together in an organized way.

2. Open Loop System

When a system has no way to measure the system is called an open-loop system.

3. Closed Loop System

A closed-loop system is a system that has a way of automatically controlling or measuring its output.

4. Manual Control

A manual control is a device that requires a human operator

5. Automatic Control

An automatic control is device that can be programmed and then continues to operate without human intervention.

6. Life Cycle Analysis

Life cycle analysis is a way of estimating the environmental impact of a product through its entire life.

Forms of Energy:

1. Energy

Energy is the ability to cause change.

2. Kinetic Energy

Kinetic energy is energy due to motion



3. Potential Energy

Potential energy is stored energy

Potential Energy



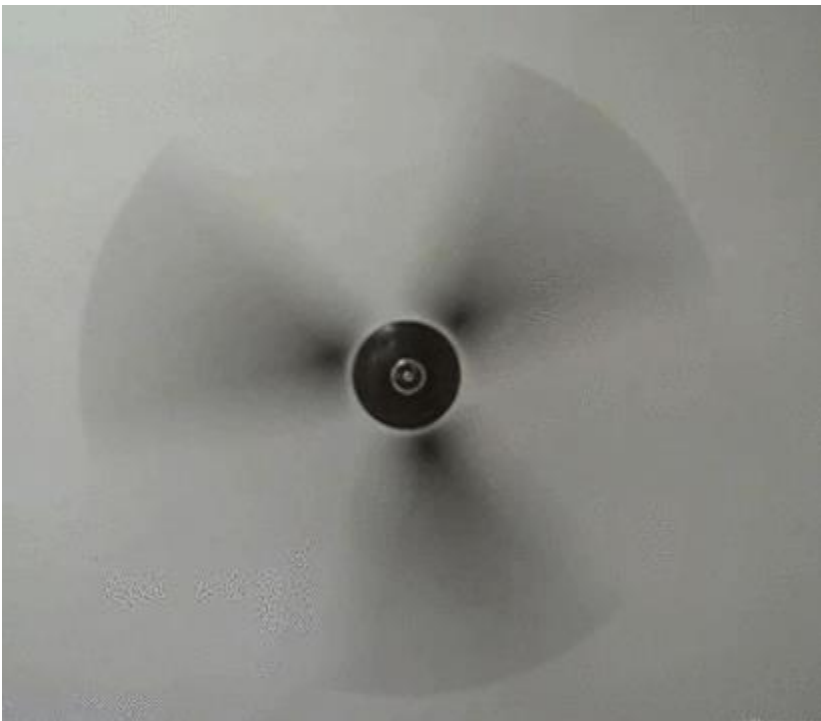
4. Work

Work is the transfer of energy to make an object move in the direction.



5. Mechanical Energy

The sum of potential energy and kinetic energy in a system of objects is mechanical energy



6. Sound Energy

The energy that carries sound is sound energy



7. Thermal Energy

Thermal energy is the sum of kinetic energy and potential energy of the particles that make up an object.



8. Electric Energy

Electric energy is the energy that carries an electric current.



9. Radiant Energy

The energy that electromagnetic waves carry is radiant energy.



10. Nuclear Energy

Nuclear energy is energy that is stored and released in the nucleus of an atom.

Energy Transformations:

1. law of conservation of energy

Energy can be transformed from one form into another form, but energy cannot be created or destroyed.



Kinetic energy to potential energy

Changing forms of energy



An automobile engine changes chemical energy to mechanical and heat energy.



A tree changes radiant energy to chemical energy.



Hammering a nail changes mechanical energy to deformation and heat energy.



A thermonuclear reaction changes nuclear energy to radiant and heat energy.



An electric mixer changes electrical energy to mechanical and heat energy.



A lamp changes electrical energy to radiant and heat energy.

© 2010 Encyclopædia Britannica, Inc.

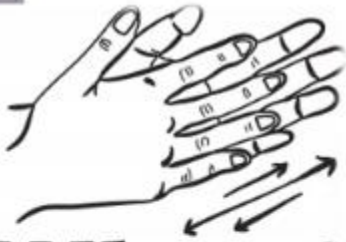
Energy transformations



2. Friction

Friction is a force that resists the sliding of two surfaces that are touching.

H.EFFA



What is Friction?

