**المرحلة الثانية / فيزياء المحاضرة السادسة E-Terminology قسم العلوم**

**PHENOMENA**

**The term came into its modern philosophical usage through** [**Immanuel Kant**](http://en.wikipedia.org/wiki/Immanuel_Kant)**. Phenomenon serves as interrelated technical terms in Kant's philosophy. Nowadays, "phenomena" are often, but not always, understood as 'appearances' or 'experiences'. The same phenomenon is** [**observed**](http://en.wikipedia.org/wiki/Observation) **as appearing differently. The combustion of a** [**match**](http://en.wikipedia.org/wiki/Match) **is an observable occurrence, or event, and therefore a phenomenon. In scientific usage, a phenomenon is any event that is observable, however commonplace it might be, even if it requires the use of instrumentation to observe, record, or compile data concerning it. For example, in** [**physics**](http://en.wikipedia.org/wiki/Physics)**, a phenomenon may be a feature of** [**matter**](http://en.wikipedia.org/wiki/Matter)**,** [**energy**](http://en.wikipedia.org/wiki/Energy)**, or** [**space-time**](http://en.wikipedia.org/wiki/Spacetime)**, such as** [**Isaac Newton**](http://en.wikipedia.org/wiki/Isaac_Newton)**'s observations of the** [**moon**](http://en.wikipedia.org/wiki/Moon)**'s orbit and of** [**gravity**](http://en.wikipedia.org/wiki/Universal_gravitation)**, or Galileo's observations of the motion of a** [**pendulum**](http://en.wikipedia.org/wiki/Pendulum)**.**

**A** [**mechanical phenomenon**](http://en.wikipedia.org/w/index.php?title=Mechanical_phenomenon&action=edit&redlink=1) **is the use of** [**applied mechanics**](http://en.wikipedia.org/wiki/Applied_mechanics) **to study the motion or equilibrium of objects related to a** [**physical phenomenon**](http://en.wikipedia.org/wiki/Physical_phenomenon)**.** [**Biomechanics**](http://en.wikipedia.org/wiki/Biomechanics) **is the study of the mechanics of living organisms; examples of biomechanics include the** [**mechanics of the digestive tract**](http://en.wikipedia.org/wiki/Mechanics_of_the_digestive_tract)**, the mechanics of** [**swallowing**](http://en.wikipedia.org/wiki/Swallowing)**,** [**animal locomotion**](http://en.wikipedia.org/wiki/Animal_locomotion)**.**

**Group phenomena concern the behavior of a particular group of individual entities, usually organisms and most especially people. The behavior of individuals often changes in a group setting in various ways, and a group may have its own behaviors not possible to an individual. Social Phenomena apply especially to organisms and people in that subjective state are implicit in the term. Attitudes and events particular to a group may have effects beyond the group, and either is adapted by the larger society, or seen as aberrant, being punished or shunned.**

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**Paranormal is a general term that designates experiences that lie outside "the range of normal** [**experience**](http://en.wikipedia.org/wiki/Experience) **or** [**scientific explanation**](http://en.wikipedia.org/wiki/Scientific_explanation)**" or that indicates phenomena that are understood to be outside of science's current ability to explain or measure. Paranormal phenomena are distinct from certain hypothetical entities, such as** [**dark matter**](http://en.wikipedia.org/wiki/Dark_matter) **and** [**dark energy**](http://en.wikipedia.org/wiki/Dark_energy)**, only insofar as paranormal phenomena are inconsistent with the world as already understood through** [**empirical**](http://en.wikipedia.org/wiki/Empiricism) **observation coupled with** [**scientific methodology**](http://en.wikipedia.org/wiki/Scientific_method)**.**

**Thousands of stories relating to paranormal phenomena are found in** [**popular culture**](http://en.wikipedia.org/wiki/Popular_culture)**,** [**folklore**](http://en.wikipedia.org/wiki/Folklore)**, and the recollections of individual** [**subjects**](http://en.wikipedia.org/wiki/Subject_(philosophy))**. In contrast, the** [**scientific community**](http://en.wikipedia.org/wiki/Scientific_community)**, as referenced in statements made by organizations such as the** [**United States**](http://en.wikipedia.org/wiki/United_States)[**National Science Foundation**](http://en.wikipedia.org/wiki/National_Science_Foundation)**, maintains that scientific evidence does not support a variety of beliefs that have been characterized as paranormal.**

**Exercises:**

1. **Answer the following questions:**
2. **By whom did phenomena come?**
3. **Who can interpret the combustion of match?**
4. **What is a mechanical phenomenon?**
5. **Where is group and social phenomena?**
6. **What is paranormal?**
7. **Vocabulary:**

**paranormal** [**pendulum**](http://en.wikipedia.org/wiki/Pendulum)

**Social phenomena** [**folklore**](http://en.wikipedia.org/wiki/Folklore)

1. **Fill in the blanks with the most correct words from the list below:**

**(**[**Isaac Newton**](http://en.wikipedia.org/wiki/Isaac_Newton)**'s observations, mechanics,** [**popular culture**](http://en.wikipedia.org/wiki/Popular_culture)**,** [**swallowing**](http://en.wikipedia.org/wiki/Swallowing)**, differently, a group setting, distinct)**

1. **The same phenomenon is** [**observed**](http://en.wikipedia.org/wiki/Observation) **as appearing---------------.**
2. **For example, in** [**physics**](http://en.wikipedia.org/wiki/Physics)**, a phenomenon may be a feature of** [**matter**](http://en.wikipedia.org/wiki/Matter)**,** [**energy**](http://en.wikipedia.org/wiki/Energy)**, or** [**space-time**](http://en.wikipedia.org/wiki/Spacetime)**, such as ------------------------- of**

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**the** [**moon**](http://en.wikipedia.org/wiki/Moon)**'s orbit and of** [**gravity**](http://en.wikipedia.org/wiki/Universal_gravitation)**, or Galileo's observations of the motion of a** [**pendulum**](http://en.wikipedia.org/wiki/Pendulum)**.**

1. [**Biomechanics**](http://en.wikipedia.org/wiki/Biomechanics) **is the study of the ------------ of living organisms; examples of biomechanics include the** [**mechanics of the digestive tract**](http://en.wikipedia.org/wiki/Mechanics_of_the_digestive_tract)**, the mechanics of -----------,** [**animal locomotion**](http://en.wikipedia.org/wiki/Animal_locomotion)**.**
2. **The behavior of individuals often changes in --------------------- in various ways, and a group may have its own behaviors not possible to an individual.**
3. **Paranormal phenomena are ---------- from certain hypothetical entities.**
4. **Thousands of stories relating to paranormal phenomena are found in-------------,** [**folklore**](http://en.wikipedia.org/wiki/Folklore)**, and the recollections of individual** [**subjects**](http://en.wikipedia.org/wiki/Subject_(philosophy))**.**