


SCIENCE

Name: _____ Group: _____ Date: _____

1  ¹³ Listen and complete the chart with words from the box.

copper bone nylon ceramics wood

Materials		
Natural	Midway	Synthetic
a	c	polyester
wool	d	e
b	glass	acrylic

2 Read and complete with words from the box.

block conductors light fluid insulators soak
flow magnets waterproof non-magnetic




Physical properties are properties that depend on the physics of the material, including density, thermal and electrical conductivity, and thermal expansion. Materials can be electrical ¹ _____, which move and carry current, like silver, copper and iron or, electrical ² _____, like most plastics, glass, ceramics, textiles and wood, which are resistant to electrical flow of energy. Magnetic materials, like iron, are attracted by



³ _____, while ⁴ _____ materials, like wood, glass, plastics, textiles and most ceramics, are not. Transparent materials, like some types of glass and plastics, allow ⁵ _____ to pass through without forming a shadow and let you see the object on the opposite side clearly. Opaque materials, like metals, wood, ceramics, textiles and most types of plastics, ⁶ _____ light. Absorbent materials, like most textiles and papers, ⁷ _____ up liquids while ⁸ _____ materials, like metals, plastics and glass, do not. Some materials, like wood or ceramics, can absorb liquids over long periods of time. Viscous materials do not ⁹ _____ easily, while ¹⁰ _____ materials do. For example, water is more fluid and less viscous than oil.

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3 Read and underline to complete the chart.

Properties of materials		
		
(a) <i>Weak / Brittle</i> materials fracture under a small amount of force. Glass has this property and is also (b) <i>absorbent / waterproof</i> because it does not have the ability to soak up liquids.	(c) <i>Elasticity / Plasticity</i> allows a material to return to its original form after it is deformed. Rubber bands have this property and are also (d) <i>rigid / flexible</i> because they are easily deformed by an applied force.	(e) <i>Elasticity / Plasticity</i> allows a material to be deformed by an applied force, but it does not return to its original form. Steel knives have this property and are also (f) <i>strong / weak</i> because they do not break.

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2 Read and match.

- | | |
|---|------------------------|
| a ___ It is the measure of greenhouse gases directly or indirectly produced to support human activities. | 1 carrying capacity |
| b ___ It is the maximum population that a particular environment can support. | 2 interdependence |
| c ___ It is the measure of raw materials, land and resources that individuals use to meet their needs and to absorb the waste produced. | 3 eco-efficiency |
| d ___ It is a management strategy of creating more goods and services, using fewer resources and producing less waste or pollution. | 4 carbon footprint |
| e ___ It is the condition of being mutually reliant on each other. | 5 ecological footprint |

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3 Read and underline to complete the text.

When conducting (a) *community / sustainable* development, we need to remember that everybody has a right to enjoy this world. (b) *Equity / Equality* refers to the fact that all individuals have the same needs and thus should have the same opportunities to have an acceptable quality of life. Humans have a (c) *infinite / finite* amount of materials on this planet, called natural resources. Thus, we must keep in mind that there are two key concepts to consider: (d) *intergenerational / intragenerational* equity, related to all the individuals in the present, and (e) *intergenerational / intragenerational* equity, which takes into consideration present and future generations. The basic idea is to (f) *encourage / discourage* development without damaging the environment so that all individuals in the present and in the future can continue enjoying an acceptable quality of life. To achieve these equities, people can apply the (g) *precautions / precautionary* principle. It states that when there is the suspicion that a certain situation can endanger the environment, precautions should be taken even when there is no scientific (h) *evidence / experimentation* of the (i) *evidence / extent* and depth of this possible damage. Basically, we have to take (j) *control / action* in order to protect present and future generations from situations that can put the environment in danger.



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