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| https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcT6AX8amX7_vU8HXc8Kbih0kNUc0p2GGqzd_eaplDTmrBDB_Gpz | HOW MUCH DO YOU KNOW ABOUT EPIGENETICS?Take this TRUE or FALSE quiz and find out |
|  | 1. A parent's experiences, in the form of epigenetic tags, can be passed down to future generations.
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|  | 1. In a pregnant mother, three generations are directly exposed to the same environmental conditions at the same time.
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|  | 1. Identical twins are genetic carbon copies, yet physically they become increasingly different over time.
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|  | 1. An epigenetic change that was triggered by environmental conditions may be reversed when environmental conditions change again.
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|  | 1. Epigenetic changes can happen in many individuals at once.
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|  | 1. The effects of smoking on health can also be passed to grandchildren, as evidenced from studies where grandmothers but not mothers smoked.
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|  | 1. The amount and quality of food a grandfather had between the ages of 9-12 can be especially important in how faithfully the epigenome is copied for future generations.
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|  | 1. Rat pups who receive high or low nurturing from their mothers develop epigenetic differences that affect their response to stress later in life.
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|  | 1. Stress, diet, behavior, toxins and other factors activate chemical switches that regulate gene expression.
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|  | 1. Your mother's diet during pregnancy and what you're fed as an infant can cause critical changes that stick with you into adulthood.
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|  | 1. Unlike behavior or stress, diet is one the more easily studied, and therefore better understood, environmental factors in epigenetic change.
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|  | 1. When researchers fed pregnant yellow mice a methyl-rich diet, most of the resulting pups were brown and healthy and stayed that way for life.
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|  | 1. Our diets and lifestyles can change the expression of our genes.
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|  | 1. Epigenomes can change in function of what we eat, of what we breathe, or of what we drink.
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|  | 1. You can impact your genes and health as well as your future children and grandchildren’s genes and health.
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|  | 1. The ability of environmental conditions to cause epigenetic changes varies with time during our life, and also with the amount of exposure at these vulnerable periods of time.
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|  | 1. Researchers have found that it takes only the addition of a methyl group to change an epigenome and the gene’s expression.
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|  | 1. Epigenetics isn’t evolution and doesn’t change DNA. It represents a biological response to an environmental stressor that can be inherited via epigenetic marks.
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*Which of the following can change your epignome? (Circle all that apply)*

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| broccoli | smoking | sleep | obesity | malnutrition |
| strawberries | spinach | pollution | viruses | prenatal nutrition |
| anxiety | exercise | social interaction | stress | Parents |