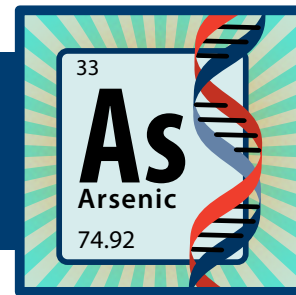


# Student Directions

## UNIT: DNA

### LESSON 1: ARSENIC AND EPIGENETICS: A DNA STORY

#### Activity 1C: Epigenetic Word Map – Linking Vocabulary



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## Word Maps

Word maps are a tool which shows connections between different terms related to a specific discipline or topic. Word maps can be hand drawn or computer generated. Below are examples of Word Maps.



Source: [The Biology Corner](#), Sample Graphic Organizer made by students.



Source: [Visual Paradigm Online \(VP Online\)](#), Sample Concept Map Diagram.

In this activity, you will create an Epigenetics Word Map, generating three branches using vocabulary terms from the transformed article, **Arsenic – The Silent Toxin that Keeps on Giving**, and Activity 1C Student Background. Additional resources, such as Activity 1B Student Background may be used. Other resources must first be approved your teacher before including them in your final Epigenetics Word Map. To create the three branches, select vocabulary terms from the following list. For each term selected, complete the citation sheet to identify the vocabulary word and the source or sources used to define the term. Your teacher will instruct you as to how many terms to include.

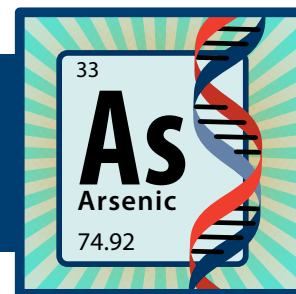
As you draft your word map, include brief definitions for each term. Consider adding diagrams, illustrations, or pictures to clarify terms.

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#### Citation Example:

Vocabulary Term	Source
Epigenetics	Activity 1C Student Background, p. 5
Epigenetics	Transformed article, <b>Arsenic – The Silent Toxin that Keeps on Giving</b> , p. 1

#### Vocabulary Terms

Transformed Article: Arsenic – The Silent Toxin that Keeps on Giving		
Arsenic	Differentiate	Placenta
Methylation	Pancreas	Diffuse
Epigenetics	Glucose	Stem cells
Metalloid	Metabolizes	Phenotypes
Student Background		
Nucleotides	Pyrimidine	Cytoplasm
Deoxyribose	Molecule	Semipermeable membrane
DNA	Polarity	Ribonucleic acid
Adenine	Hydrogen bonds	Transcription
Thymine	Genes	Uracil
Guanine	Codons	Transfer RNA
Cytosine	Genotype	Ribosomal RNA
Purine	Phenotype	Messenger RNA
Peptide chain	Microscopic	Nanoscale
Mutation	Point mutation	Frameshift mutation
Insertion	Deletion	Hereditary diseases
Epigenetics	Gene expression	

#### MIDDLE & HIGH SCHOOL LEVEL