When you create visual and graphic organizers, you tend to select and process information at a deeper level, which increases the likelihood that you will understand and learn the material better. As you look through the three different types of organizers below, reflect on which ones will work in your current classes.

**LINEAR ARRAYS**

- Linear arrays are useful when information has an internal linear structure, such as steps in a process or events on a timeline.
- A simple linear array can mark historical events or major parts of a process by using a horizontal or vertical line.
- A hierarchy or tree structure can be used for items that are a part of a group.
- A flow chart shows a progression through a sequence of operations.

**An Example of a Vertical Array**

![American Revolution Time Line](image1)

**An Example of a Hierarchy**

![Hierarchy Example](image2)
An Example of a Tree Structure

- **Phylum: Chordata**
  - **Subphylum: Vertebrata**
  - **Super Class: Gnathostomata** (jawed vertebrates)

- **Chondrichthyes** (sharks, rays):
  - teeth
  - saltwater
  - only
  - no swim bladder
  - cartilaginous fish
  - skeletons of cartilage

- **Amphibia** (frogs, salamanders):
  - teeth
  - lay eggs in water
  - webbed feet
  - suction
  - smooth skin
  - half of life in water, half out

- **Aves** (birds):
  - no teeth
  - feathers
  - hollow bones
  - one lung, one-way
  - endothermic

- **Reptilia** (snakes, lizards, turtles, alligators):
  - teeth
  - scales
  - rough skin
  - lay eggs on land
  - esthermic
  - 4 appendages

- **Cetartiodactyla** (bony fish):
  - teeth
  - swim bladder
  - 4-chambered heart
  - endothermic

- **Mammalia** (all other animals, hair):
  - all have hair
  - mammary glands

An Example of a Flow Chart

```
Start
  | Do you know all the material for the test? |
  | Yes |
  | No  |
  | Go over notes |

Yes

<table>
<thead>
<tr>
<th>Was studying notes enough?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Reread textbook material</td>
</tr>
</tbody>
</table>

Yes

<table>
<thead>
<tr>
<th>Do you feel confident about the material?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>Go get tutoring</td>
</tr>
</tbody>
</table>

Yes

<table>
<thead>
<tr>
<th>Relax and get some sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish</td>
</tr>
</tbody>
</table>
```

**Symbols:***
- **Start/Finish**
- **Decision**
- **Process/Action**
The purpose of the matrix is to compare topics across several dimensions. Filling in cells allows you to condense large amounts of information into one organizer. To study, try turning the dimensions into questions and answering them.

Example of a Matrix

<table>
<thead>
<tr>
<th>Authors</th>
<th>Major Themes of Works(s)</th>
<th>Influences on Works</th>
<th>Poem(s)/Story</th>
<th>Main Idea of Poem(s)/Story</th>
<th>Critics’ Comments (of their time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sylvia Plath</td>
<td>Horror, Death</td>
<td>Father died of cancer when she was 10; Pushed by mother to do well</td>
<td>“Daddy” 1, “Lady Lazarus” 2</td>
<td>Father died of cancer, guilt 1, Celebrating suicide attempts—ref. in both to Holocaust 2</td>
<td>Poems were “the longest suicide notes ever written”</td>
</tr>
<tr>
<td>Walt Whitman</td>
<td>Sexuality, Ecstatic perception of man and nature</td>
<td>Natural talent for journalism; Emerson, Friend</td>
<td>“When I Heard the Loom’d Astronomer” 1, “The Dalliance of the Eagles” 2</td>
<td>Rejection of astronomer’s perception of nature 1, Power of sexual drive, celebration of life-force 2</td>
<td>“poetry of barbarism;” “mixture of Yankee transcendentalism and NY rowdiness”</td>
</tr>
<tr>
<td>Emily Dickinson</td>
<td>Calvinism = to look inwardly; Coldness of the world; Love, death, nature, immortality, beauty</td>
<td>Emotional crisis brought on by lost love of a married man; Shakespeare, Keats, the Brownsings</td>
<td>“I Heard a Fly Buzz—When I Died—” 1, “Because I Could Not Stop for Death—” 2</td>
<td>Disbelief in afterlife/ immortality 1, Belief in immortality, deathly-gracious gentleman caller 2</td>
<td>“garage of illiterate and uneducated sentiment”</td>
</tr>
<tr>
<td>Nathaniel Hawthorne</td>
<td>Concern with American past; Human isolation and seclusion</td>
<td>Life in Salem, Puritanism</td>
<td>“Young Goodman Brown” 1</td>
<td>Evil is the nature of every human being (abstract meaning) 1</td>
<td>Wrote with “all the fascination of a genius and all the charm of a highly polished style”</td>
</tr>
<tr>
<td>Edgar Allan Poe</td>
<td>World of perversion, disorder; Fascinated by the bizarre</td>
<td>Depression; Psychologically crippling childhood; Unsuccessful suicide</td>
<td>“Cask of Amontillado” 1</td>
<td>Conditions of revenge, death bed confession, obsessed with murder that he got away with</td>
<td>“demonic” “egotistic villain with scarcely any virtue”</td>
</tr>
<tr>
<td>Herman Melville</td>
<td>Confrontation of innocence and evil; World filled with lost innocence and betrayed hope</td>
<td>Sea life; Adventures while traveling</td>
<td>“Bartleby, the Scrivener” 1</td>
<td>Bartleby is a greater person than the narrator, who thinks otherwise</td>
<td>A man who could “neither believe nor be comfortable in his disbelief”</td>
</tr>
</tbody>
</table>

Maps are visual attempts to represent relationships among various concepts and data. They can range from simple to elaborate. Effective maps often use color. Two types of frequently used maps are concept maps and networks.

- Concept maps allow you to group related information into two- or three-level drawings.
- Networks are the most complex and the most powerful types of maps. They build on a concept map, but all the links between the items are labeled to identify relationships.
Example of a Concept Map Using the Bubble Format

Business Law
- Revocation
- Termination
- Rejection
- Agreement
- Acceptance
- Unequivocal
- Unconditional
- Usury
- Illegal contracts
- Gambling

Contracts
- Consideration
  - Minors
  - Tort liability
  - Ratification
  - Lack of consideration
  - Subjunctive decision
- Preexisting duty
- Unforeseen difficulties
  - intoxicated persons
  - Not a defense

Example of a Concept Map Using the Spider Format

First Pacific Railway Act
- Established railway system points
- Federal Grants
- Union Pacific built west
  - Central Pacific built east
  - 40 ft. R.O.W., 5 remaining sq. miles

Homestead Act
- Ordinance of 1862
  - Pre-19th Century
  - grants 300,000 acres for each delegate
  - sales of land went to establish state schools
  - granted settlers 160 acres of land
  - settlers had to work land for 5 years
  - created 6 x 6 sq. mile townships
  - sold land plots for $4.00

Planning Movements in the early 19th century

Highway Trust Fund
- Federal Aid Highway Act
- Bureau of Public Roads

Urban and Regional Planning
- Reclamation Act of 1902
  - sale of public lands used for water projects
  - start of dam construction, e.g., Hoover
  - water-related projects

Bureau of Reclamation
- Corps of Engineers
- Water Resource Development Act
Example of a Process Network

Note the use of letters between the nodes to indicate relationship and the key for the letters.

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