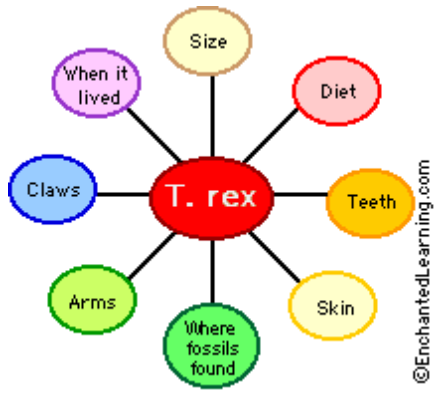
KINDS OF GRAPHIC ORGANIZER

Star Diagrams

Star diagrams are a type of graphic organiser that condense and organize data about multiple traits, fact, or attributes associated a single topic.

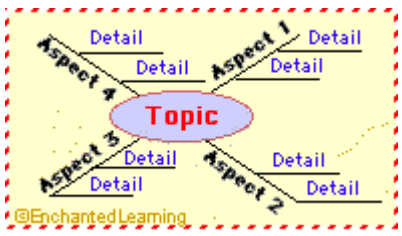


Star diagrams are useful for basic brainstorming about a topic or simply listing all the major traits related to a theme.

For example, a star diagram can be used to create a graphic display describing all you know about dinosaur (when they lived, what kinds there were, how big they were, what they ate, where fossils have been found, etc.) or a graphic display of methods that help your study skills (like taking notes, reading, doing homework, memorizing, etc.). Another use is a story star, a star diagram used to describe the key points of a story or event, noting the 5 W's: who, when, where, what, and why.

Spider Diagrams

A Spider map (sometimes called a semantic map) is a type of graphic organizer that is used to investigate and enumerate various aspects of a single theme or topic, helping the student to organize their thoughts. It looks a bit like a spider's web, hence its name.



The process of creating a spider diagram helps the student focus on the topic, requires the student to review what they already know in order to organize that knowledge, and helps the student to monitor their growing comprehension of the topic. It also helps point out the areas where the student must investigate more (where the web is hard to fill out).

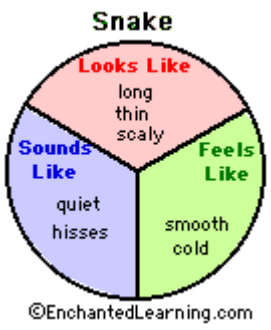
If the topic at hand involves investigating attributes associated with a single topic, and then obtaining more details on each of these ideas, use a spider diagram as your graphic organizer. The spider diagram is like a star graphic organizer with another level of detail.

For example, a spider diagram can be used to to find methods that help your study skills (like taking notes, reading, memorizing, etc.), and investigate the factors involved in performing each of the methods.

Another example is to use a spider map to prepare for a writing assignment; the student must concentrate on the main topic, list the big ideas concerning the topic, and think of the attributes/qualities/functions associated with each of these ideas.

Y-Chart

Y-Charts are a type of three-part chart, a graphic organizer.

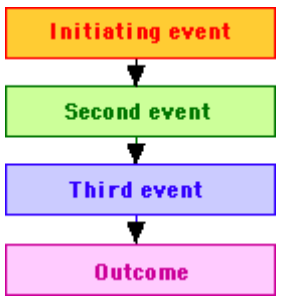


For example, a student can use a Y-Chart to help organize what they know about a topic by writing and/or drawing what the topic looks like, feels like, and sounds like. The student must think about a topic with respect to three of their senses, sight, hearing, and touch. In this case, the Y-Chart has sections in which the student writes and/or draws:

- What it looks like,
- What it sounds like,
- What it feels like (or How a character feels).

Chain Diagrams

Chain diagrams, also called sequence of events diagrams, are a type of graphic organizer that describe the stages or steps in a process.

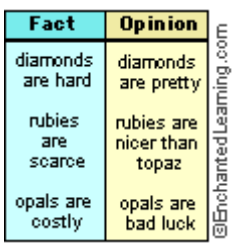


The student must be able to identify the first step in the process, all of the resulting stages in the procedure as they unfold, and the outcome (the final stage). In this process, the student realizes how one step leads to the next in the process, and eventually, to the outcome.

Chain diagrams are useful in examining linear cause-and-effect processes and other processes that unfold sequentially.

Fact/Opinion Graphic Organizers

Graphic organizers can be used to help distinguish facts vs. opinions in a theme or text.



- **Facts** are statements that can be shown to be true or can be proved, or something that really happened. You can look up facts in an encyclopedia or other reference, or see them for yourself. For example, it is a fact that broccoli is good for you (you can look this up in books about healthy diets).
- **Opinions** express how a person feels about something -- opinions do not have to be based upon logical reasoning. For example, it is an opinion that broccoli tastes good (or bad).

A student can use one of these graphic organizers to help determine which parts of a news article, debate, or essay are facts and which are opinions. This is a useful tool for developing critical thinking skills.

Math Graphic Organizer Diagrams

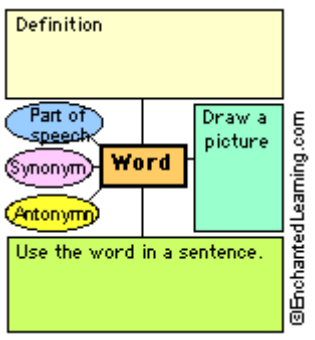
Math Label Me Printouts

Many types of graphic organizers are useful for doing math, including Venn Diagrams (two or three overlapping circles used to compare and contrast sets, and to find lcm and gcf), circle graphs (also called pie charts), trees (to find factors and assess probabilities), charts, and tables.

Vocabulary Map Graphic Organizers

Parts of Speech

Vocabulary maps are graphic organizers that can be useful in helping a student learn new vocabulary words.



For each new vocabulary word, the student writes the word, its definition, its part of speech (noun, verb, adjective, adverb, etc.), a synonym, an antonym, draws a picture that illustrates the meaning of the word, and writes a meaningful sentence using the word.

Scientific Method Graphic Organizer Diagrams

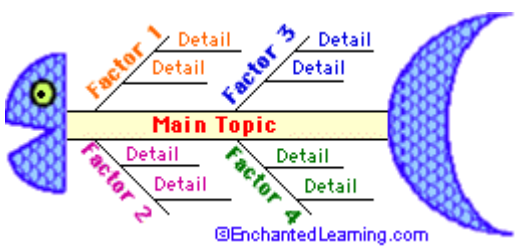
Graphic organizers can be used to help formulate and organize a scientific experiment.

A scientific experiment involves many steps, including:

1. **Observe, State Experimental Questions** - After observing a phenomenon, you may wonder what is happening, and what caused it to happen. Write down your observations and your questions.
2. **Gather Information** - Do background investigation on the phenomenon you are interested in. Find out what is known about it already.
3. **Formulate a Hypothesis** - Write a statement that predicts what may happen in your experiment based on your knowledge and data from other experiments.
4. **Design an Experiment to Test Your Hypothesis** - Determine a logical set of steps to be followed in your experiment.
    - **Independent/Experimental Variable** - Determine or guess which factors could affect the phenomenon you are studying. The experimental variable is the one variable the investigator chooses to vary in the experiment.
5. **Perform the Experiment**
6. **Collect Data** - Record the results of the investigation in a table or chart.
7. **Summarize Results** - Analyze the data and note trends in your experimental results.
8. **Draw Conclusions** - Determine whether or not the data support the hypothesis of your experiment.

Main Idea/Supporting Ideas

Graphic organizers can be useful for showing a main idea and details, facts, and/or arguments that support it. These graphic organisers can be used for analyzing a paragraph, a story, a scientific concept, a position that you hold, or any idea.



Many different types of graphic organizers can be used for showing a main idea and its supporting details, including star organizers, trees, fishbone organizers, and charts.

KWHL or KWL Chart

KWHL Charts (also called "What I Know" Charts, KWL charts, and Know-Wonder-Learn charts) are a type of chart, a graphic organizer that help the student organize what they know and what they want to learn about a topic before and after the research is done.

What I Know	What I Want to Find Out	How I Can Learn More	What I Have Learned
Sharks eat meat	Which sharks eat people?	Search the Web	Tiger sharks are dangerous
Whale shark is biggest	What sharks is fastest?	Books from school library	Makos & Blues are fastest
Sharks eat animals	What sharks is smallest?	Go to museum	Pygmy shark is 6 inches long
Sharks are fish	What animals eat sharks?	Shark video	Killer whales eat sharks

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A KWHL chart should be used before, during, and after a student reads about a new topic. Filling out this chart prepares a student for reading about a topic, helps in reviewing what has been learned about the material, gives help in obtaining more information, and readies the student to write about what they've learned.

- **K** stands for what you already KNOW about the subject.
- **W** stands for what you WANT to learn.
- **H** stands for figuring out HOW you can learn more about the topic.
- **L** stands for what you LEARN as you read.

PMI Chart

PMI Charts are a type of chart, a graphic organizer in which a student examines the **P**lusses, **M**inuses, and **I**nteresting things (or Implications) associated with a topic, decision, or idea.

Moving to a Big City		
+	-	i
Many jobs	Expensive	More people
Museums	Traffic	Mass transit
Restaurants	Pollution	Shopping
Parks	Crime	Close to airport

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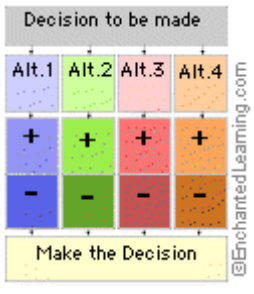
For example, a student can use a PMI chart to help organize their thoughts about making a decision (like getting a pet), evaluating the pros and cons of a debate topic (like examining the implications of the adoption of a new invention), or comparing the advantages and disadvantages of an action (like thinking about what would happen if going to school was not mandatory). For more complex decision (choosing from multiple alternatives), use decision making graphic organizers.

Decision Making Graphic Organizers

Graphic organizers can be very useful in making a decision because they force the student to think about what the problem is, what the possible alternatives are, and what the consequences (positive and negative) of each alternative could be. Then the decision can be more easily analyzed.



The graphic organizer guides the student through a four-stage decision-making process. The stages in the process are:

1. State the decision that needs to be made.
2. List possible alternatives.
3. List the pros and cons (the consequences) associated with each of the alternatives.
4. Compare the consequences each of the alternatives in order to make the decision (and/or evaluate the alternatives pairwise).

For example, this type of graphic organizer can be used to choose which elective courses would best suit a student.

PMI (Plus, Minus, Implications) charts can be used for decision making where there are only two alternatives (like a yes/no question).

Paragraph Structure Graphic Organizers

A paragraph is a unit of writing that consists of one or more sentences focusing on a single idea or topic. A well-written paragraph often has the following structure:

1. **Topic Sentence**: This sentence outlines the main idea that will be presented in the paragraph.
2. **Support Details or Examples**: This is the part of the paragraph that presents details, facts, examples, quotes and arguments that support the main idea.
3. **Conclusion Sentence**: This sentence summarizes the main idea of the paragraph. It may also lead the reader to the topic of the next paragraph.

There are many different types of paragraphs, depending on what you are writing:

- **Descriptive Paragraph**: This paragraph describes something or someone. For example, you can write a descriptive paragraph describing your best friend, including what she likes and dislikes, where she lives, what she wants for her birthday, and her favorite food.
- **Expository Paragraph**: This paragraph explains an idea; it is also called an information paragraph. For example, you can write as expository paragraph explaining how to make chocolate chip cookies.
- **Persuasive Paragraph**: This paragraph tries to convince the reader of something. This type of paragraph may start with a phrase like: "I think that..." The support section may include sentences that start with, "One reason is...," or "For example..." It may end with something like, "This is why I think that..." For example, you can write a persuasive paragraph telling why people should vote for you for class president.
- **Narrative Paragraph**: This paragraph describes an event or tells a story, usually in chronological order. For example, you can write a narrative paragraph detail what you did on your first day of school.