Differentiated Curriculum

CHALLENGING HIGH END LEARNERS:
ADDRESSING OREGON STANDARDS AND BENCHMARKS

SECTION VI
MODELS AND GRAPHIC ORGANIZERS

OREGON DEPARTMENT OF EDUCATION
OFFICE OF SPECIAL EDUCATION
TALENTED AND GIFTED
2003
# Models and Graphic Organizers

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Models

Model n 1: a simplified description of a complex entity or process.

Source: WordNet ® 1.6, © 1997 Princeton University

Featured in this section are exemplary models for complex thinking, reasoning and learning processes. Student activities need to be intellectually demanding, challenging them by requiring a higher level of response or by open-ended questions that stimulate inquiry, industrious exploration, and purposeful discovery.

Teachers need to encourage students to think about subjects in more abstract and complex ways, to stimulate and encourage higher level thinking skills and to promote self-directed learning.

Significant contributors whose models are briefly mentioned within this section are Richard Paul, Linda Elder, Benjamin Bloom, Hilda Taba, E. P. Torrance and Sidney Parnes.

~Jackie Buisman

The Elements of Reasoning

Teachers sometimes struggle with crafting good critical thinking questions that get at the heart of the problem. Richard Paul and Linda Elder from the Foundation of Critical Thinking developed the Elements of Reasoning to address the underlying elements of logical and critical thinking. Although you may want to add some of your own, the eight elements they identified are excellent. Good critical thinking questions are the fall out of considering the Elements. Below is a brief outline of Paul and Elder's Elements of Reasoning.

1. What are the fundamental goals and objectives of the lesson?
2. What is the question or problem at issue you are trying to answer or solve?
3. What information or data do you need to answer the problem or issue?
4. What is the information or data telling you? What inferences and interpretations can you legitimately make?
5. What are the implications or consequences of your thinking (what follows from thinking this rather than that)?
6. What are the key ideas or concepts that will help you answer the question or solve the problem?
7. What are your assumptions (should you be taking this or that for granted)?
8. Are you adopting the most reasonable point of view with respect to the issue?

Annotated from Richard Paul and Linda Elder’s "Critical Thinking: Teaching Students To Seek the Logic of Things"

Universal Intellectual Standards

Students should be taught what intellectual standards for which they are held accountable. Richard Paul and Linda Elder of the Foundation for Critical Thinking have identified eight standards students should learn. You may want to add some of your own, but be careful that your final list of standards is short enough for students to grapple with -- this is another venue where "less can be more."

Below are Paul and Elder's list of Universal Intellectual Standards.

Clarity-
Could you elaborate further?
Could you illustrate what you mean?
Could you give me an example?

Accuracy-
How could we check on that?
How could we find out if that is true?
How could we verify or test that?

Precision-
Could you be more specific?
Could you give me more details?
Could you be more exact?

Relevance-
How does that relate to the problem?
How does that bear on the question?
How does that help us with the issue?

Depth-
What factors make this a difficult problem?
What are some of the complexities of this question?
What are some of the difficulties we need to deal with?

Breadth-
Do we need to look at this from another perspective?
Do we need to consider another point of view?
Do we need to look at this in other ways?

Logic-
Does all this make sense together?
Does your first paragraph fit in with your last?
Does what you say follow from the evidence?

Significance-
Is this the most important problem to consider?
Is this the central idea to focus on?
Which of these facts are the most important?

Incorporating Bloom's Taxonomy

The Teaching for Thinking technique depends on the teacher thinking critically about his or her lesson and posing questions that move students beyond basic fact recall. An indication that a lesson has too many recall questions and not enough higher level questions is the reactions of your students. Having to answer 60-plus recall questions in a lesson is not very interesting, challenging or exciting. If your students are bored, examine the level of questions you ask. Be sure to move into the upper levels of Bloom's taxonomy to challenge students to think.

Bloom's Taxonomy

1. Knowledge: arrange, define, duplicate, how, how much, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce, state, who, what, why, when.
2. Comprehension: classify, demonstrate, describe, discuss, explain, express, identify, indicate, infer, judge, locate, recognize, report, restate, review, select, translate.
3. Application: apply, choose, demonstrate, dramatize, employ, explain, illustrate, interpret, operate, practice, predict, schedule, show, sketch, solve, summarize, use, write, “what would happen if?”

4. Analysis: analyze, appraise, test, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, “what conclusions can you make?”

5. Synthesis: arrange, assemble, collect, compose, construct, create, design, develop, formulate, “how would you test.” manage, organize, plan, prepare, propose, set up, write.

6. Evaluation: appraise, argue, assess, attach, choose compare, defend, estimate, find the errors, judge, predict, rate, core, select, support, value, evaluate.

**Now Add Socratic Questioning**

**Basic Questioning Technique Used in Teaching for Thinking**

Students can read the material aloud, a paragraph or block of text at a time, (if age and lesson appropriate) or they can be questioned over material that has been assigned or they have learned previously.

Visual materials (maps, graphs, tables, etc.) are studied by students for a few minutes before questioning.

Questions are asked that help students make sense of the information or concept - identifying the goal, recognizing the key question or problem, identifying and analyzing the pertinent information, identifying the concepts and definitions used, analyzing the assumptions made, analyzing the point of view, comparing, explaining, inferring, analogies, sequencing.

Questions are asked that help students apply, extend and evaluate the concepts or principles - forecasting, generalizing, recognizing implications and consequences, judging, predicting, constructing, generalizing, hypothesizing, extrapolating.

Review questions are asked to review concepts, evaluate student judgments, and the main ideas of the lessons.

All students participate - even if students do not have their hands up.

Students are called on randomly.

"I don't know" is not an acceptable answer - teacher redirects, restates the question, has another student answer and has the first student summarize that answer, or comes back to the student with another question later in the lesson.

The name of the student comes at the end of the question.
QUESTIONS TO GUIDE INTELLECTUAL THINKING

RICHARD PAUL AND LINDA ELDER'S LIST OF
UNIVERSAL INTELLECTUAL STANDARDS STUDENTS SHOULD LEARN
http://www.gilbert.k12.az.us/index.html

Clarity
Could you elaborate further?
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Could you give me an example?

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How could we find out if that is true?
How could we verify or test that?

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Is this the most important problem to consider?
Is this the central idea to focus on?
Which of these facts are the most important?
## Paul's Model of Reasoning

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<td>Analyze and interpret literature</td>
<td>Qualitative comparisons problems</td>
<td>Predicting</td>
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<td>Multiple perspectives</td>
<td>Use reasoning developing written forms</td>
<td>Interpretation of data presentations (e.g. graphs, charts)</td>
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<td>Understanding text-based sources (primary and secondary)</td>
<td>Debate</td>
<td>Logic and reasoning</td>
<td>Inferring</td>
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<td>Persuasive writing</td>
<td>Research projects</td>
<td>Problem solving</td>
<td>Analyzing and evaluating data</td>
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## Paul's Model of Concept Development

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<th>Science</th>
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<td>Change in literary elements (e.g. character, plot, setting)</td>
<td>Pattern recognition and pattern making</td>
<td>Living and earth/space systems</td>
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<td>Structure, function and pattern of societal systems</td>
<td>Writing process</td>
<td>Number systems</td>
<td>Cycles and patterns</td>
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<td>Maps as systems</td>
<td>Language study</td>
<td>Use of the concepts of models and scale to construct mathematical forms</td>
<td>Interactions with and across systems</td>
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<tr>
<td>History as the study of change over time</td>
<td>Grammar as a system</td>
<td>Communication and connections</td>
<td>Change processes in biology, chemistry, physics, and geology.</td>
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### Knowledge of terminology:
- specific facts; ways and means of dealing with specifics (conventions, trends and sequences, classifications and categories, criteria, methodology)
- universals and abstractions in a field (principles and generalizations, theories and structures)

Knowledge is (here) defined as the remembering (recalling) of appropriate, previously learned information.

**Verbs:**
- defines; describes; enumerates; identifies; labels; lists; matches; names; reads; records; reproduces; selects; states; views.

### Comprehension:
- Grasping (understanding) the meaning of informational materials.

**Verbs:**
- classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; makes sense out of; paraphrases; restates (in own words); summarizes; traces; understands.

### Application:
- The use of previously learned information in new and concrete situations to solve problems that have single or best answers.

**Verbs:**
- acts; administers; articulates; assesses; charts; collects; computes; constructs; contributes; controls; determines; develops; discovers; establishes; extends; implements; includes; informs; instructs; operationalizes; participates; predicts; prepares; preserves; produces; projects; provides; relates; reports; shows; solves; teaches; transfers; uses; utilizes.

### Synthesis:
- Creatively or divergently applying prior knowledge and skills to produce a new or original whole.

**Verbs:**
- adapts; anticipates; categorizes; collaborates; combines; communicates; compares; compiles; composes; contrasts; creates; designs; devises; expresses; facilitates; formulates; generates; incorporates; individualizes; initiates; integrates; intervenes; models; modifies; negotiates; plans; progresses; rearranges; reconstructs; reinforces; reorganizes; revises; structures; substitutes; validates.

### Analysis:
- The breaking down of informational materials into their component parts, examining (and trying to understand the organizational structure of) such information to develop divergent conclusions by identifying motives or causes, making inferences, and/or finding evidence to support generalizations.

**Verbs:**
- breaks down; correlates; diagrams; differentiates; discriminates; distinguishes; focuses; illustrates; infers; limits; outlines; points out; prioritizes; recognizes; separates; subdivides.

### Evaluation:
- Judging the value of material based on personal values/opinions, resulting in an end product, with a given purpose, without real right or wrong answers.

**Verbs:**
- appraises; compares & contrasts; concludes; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; supports.

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**BLOOM'S TAXONOMY OF THE COGNITIVE DOMAIN**

**Categories in the Cognitive Domain**

http://www.valdosta.peachnet.edu/~whuitt/psy702/cogsys/bloom.html

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**Knowledge of terminology:**
- specific facts; ways and means of dealing with specifics (conventions, trends and sequences, classifications and categories, criteria, methodology); universals and abstractions in a field (principles and generalizations, theories and structures);

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- classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; makes sense out of; paraphrases; restates (in own words); summarizes; traces; understands.

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**Evaluation:**
- Judging the value of material based on personal values/opinions, resulting in an end product, with a given purpose, without real right or wrong answers.

**Verbs:**
- appraises; compares & contrasts; concludes; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; supports.
TABA QUESTIONING STRATEGY DESIGN
created by Hilda Taba, based on the work of Piaget

Careful questioning can be used to help students at many different levels and in many different classes progress to higher levels of thinking and understanding. Instructors can plan discussions, moving from a level of simple factual understanding to drawing inferences, applying information to new situations, and eventually to evaluating information. When questioning a group, allow each person to contribute just one response, in order to involve more people.

From I-CANS (Integrated- Curriculum for Achieving Necessary Skills)
http://www.literacynet.org/icans/chapter02/questions.html

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<th>Thinking Skill</th>
<th>Sample Questions</th>
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| Deductive Reasoning             | Evaluation                   | Did it work?  
                                         How successful was it?  
                                         Were the results as predicted? |
| Inductive Reasoning             | Application (either hypothetical or actual) | If ....then...?  
                                         Suppose that...? |
|                                 | Making generalizations (conceptualization) | What conclusions can you draw? |
|                                 | Drawing inferences about relationships | Why do you think...? |
|                                 | Affective Identification      | What was your reaction to...?  
                                         How did it make you feel...? |
|                                 | Perception                   | What happened?  
                                         What do you know about...?  
                                         What did you see...? |
| Factual Understanding           | Common Experience/ Demonstration | Who...?  
                                         Where...?  
                                         When...?  
                                         Demonstrate what occurred, how to do something, and so on, using props, audio-visual aids, etc. |

Contributed by Mary Gray from Lane/Benton/ Lincoln  ESD 2003
### CONCEPT FORMATION

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<th>Eliciting Questions</th>
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<td>1. Enumeration, listing</td>
<td>Differentiation (identifying separate items)</td>
<td>What do you see? hear? note?</td>
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<td>2. Grouping</td>
<td>Identifying common properties, abstracting</td>
<td>What belongs together? On what criterion?</td>
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<td>3. Labeling, categorizing</td>
<td>Determining the hierarchical order of things (super- and subordination)</td>
<td>How would you call these groups? What belongs to what?</td>
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### INTERPRETATION OF DATA

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<th>Eliciting Questions</th>
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<td>1. Identifying critical relationships</td>
<td><strong>Differentiating</strong></td>
<td>What did you notice? see? find?</td>
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<tr>
<td>2. Exploring relationships</td>
<td>Relating categories to each other</td>
<td>Why did this happen?</td>
</tr>
<tr>
<td>3. Making inferences</td>
<td>Going beyond what is given</td>
<td>What does this mean? What picture does it create in your mind? What could you conclude?</td>
</tr>
</tbody>
</table>


### APPLICATION OF PRINCIPLES

<table>
<thead>
<tr>
<th>Overt Activity</th>
<th>Covert Mental Operations</th>
<th>Eliciting Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Predicting consequences, explaining unfamiliar phenomena, hypothesizing</td>
<td>Analyzing the nature of the problem or situation, retrieving relevant knowledge</td>
<td>What would happen if . . . ?</td>
</tr>
<tr>
<td>2. Explaining and/or supporting the predictions and hypotheses</td>
<td>Determining the causal links leading to prediction or hypothesis</td>
<td>Why do you think this would happen?</td>
</tr>
<tr>
<td>3. Verifying the prediction</td>
<td>Using logical principles or factual knowledge to determine necessary and sufficient conditions</td>
<td>What would it take for this to be generally true or probably true?</td>
</tr>
</tbody>
</table>

PROBLEM SOLVING

The Creative Problem Solving Process [http://www.cpsb.com/]
- **Focusing** - Define, prioritize, focus and analyze problems
- **Idea Generating** - Generating creative and useful ideas, approaches and solutions
- **Decision Making** - Making the best possible decision
- **Implementing** - Ensure that solutions are implemented

Osborn-Parnes Five Stage CPS Model [http://www.buffalostate.edu/centers/creativity/cpsandcsc.htm]
- Fact Finding
- Problem Finding
- Idea Finding
- Solution Finding
- Acceptance Finding

Future Problem Solving [http://www.unesco.org/education/tlsf/theme_d/mod23/uncom23bod.htm]
Future Problem Solving is a strategy for helping students develop skills for analyzing a problem. Working through a six step process can help them decide - from a futures perspective - what should be done about a problem. The six steps are:
- identifying possible causes and effects of a problem;
- identifying the underlying problem;
- brainstorming potential solutions;
- developing criteria for evaluating solutions;
- evaluating all solutions to determine the best one; and
- developing an action plan.

Looking for more information? Research E. Paul Torrance and Sid Parnes.

E. P. Torrance: His Life, Accomplishments, and Legacy is a tribute to the renowned creativity researcher, university teacher, and mentor to numerous individuals throughout the world. This monograph is presented in three sections which include a discussion of Torrance's life, followed by an overview of his accomplishments, including his creativity research, the Future Problem Solving Program, and the Incubation Model of Teaching. The monograph concludes with a discussion of his legacy and the Torrance Center for Creative Studies. [http://www.gifted.uconn.edu/hebecram.html]

Sid Parnes: Professor Emeritus, and Founding Director for the Center in Studies of Creativity, Buffalo, NY, and Co-Founder of the Osborne-Parnes Creative Solving Problem Process. [http://www.buffalostate.edu/centers/creativity/cpsandcsc.htm]
TYPES OF THINKING

Critical Thinking: using basic thinking processes to analyze arguments and generate insight into particular meanings and interpretations

Critical Thinking Skills
Inductive reasoning - making observations that suggest a conclusion or lead to an hypothesis
Syllogism - 2 or more premises that are used to derive valid conclusions
Deductive reasoning - use of stated premises to draw conclusions that can logically be derived from them
Classification - to sort or group objects, events, or people into clusters according to their common factors, attributes, or characteristics
Sequencing - arranging in a connected series based on a particular property or characteristic
Inferring - to derive a conclusion from facts or premises; to guess, surmise; to reason beyond available information to fill in gaps
Problem solving - using basic thinking processes to define and resolve a difficulty
Patterning - seeking constant traits or replicable characteristics, artistically, mathematically
Analogy - a problem-solving strategy in which linguistic or figural similarities are noted between 2 or more situations, while simultaneously discerning there are also differences in the relationship
Ambiguity - recognizing more than one meaning in a communication
Contrast - to compare objects or ideas by emphasizing their differences
Analysis - seeking relationships such as part/whole, patterns, sequences, order, logical deductions, attributes

Creative thinking: using basic thinking processes to develop or invent novel, aesthetic, constructive ideas or products

Creative Thinking Skills
Fluency - generating multiple responses to a problem, situation, solution
Brainstorming - a group or individual method for generating multiple responses
Flexibility - viewing ideas or solutions from a wide variety of perspectives
SCAMPER - a model to use to become more flexible in thinking. The anagram stands for Substitute, Combine, Adapt, Modify-Magnify-Minify-Put to other uses, Eliminate, Reverse
Elaboration - adding details to a creative idea or product; fleshing out with details
Originality - creating a new or novel idea or product; may be on a level of comparison with oneself, with one's age peers, with the world at large
Attribute listing - a method to generate more and different ideas by listing known attributes and then changing or improving them in unusual ways
Metaphor - linguistic comparisons formed when we note similarities between things that are basically dissimilar; often used in creative thinking and writing

Reflective Thinking Skills
Metacognition - conscious knowledge about our thinking processes and how we use them

Contributed by Mary Gray from Lane/Benton/ Lincoln ESD 2003
A RANGE OF QUESTIONS

CLOSED QUESTIONS

Factual Questions
"Who?"
"What?"
"Where?"
"When?"

CLASSIFICATION QUESTIONS OR EXTENSION QUESTIONS

"Can you find at least 3 sets to group these events (objects, characters) in according to common characteristics or attributes?"

SEQUENCING QUESTIONS

"How would you arrange the main events in the story according to the order in which they occurred?"
"Can you place the rocks in your sample in order from softest to hardest?"
"Which of the following historic events occurred in the ___ century? Place them in chronological order."

INFERENCE QUESTIONS

"What do you know by examining this photograph?"
"What do you know about the character in this selection?"
"What observations did you make that led you to this conclusion? (or hypothesis)"

CAUSE-EFFECT RELATIONSHIPS

"What were the causes of...?" (historical events, a turn in a literary plot)

PREDICTIONS

"The title of the next reading assignment is ____. After seeing that, what do you predict the selection will be about?" (could be a section in a text, a poem, a chapter)
"You have finished chapter ___ of the novel. What do you predict the main character will do in the next chapters?"

ASSUMPTIONS

"You have observed ___ (an experiment, a character's actions, a picture). What are some assumptions you have made in inferring why the experiment turned out as it did (or why the character acted as he/she did or what is going on in the picture)?"

COMPARISON QUESTIONS

"In what ways are ____ (2 historic figures such as Lincoln and Douglas; 2 characters in different novels) similar to each other?"

"How are the settings of these novels similar?"

OPEN-ENDED QUESTIONS OR EXTENSION QUESTIONS

"In what ways are these two ideas about government different?"
"How are the results of your experiments different?"

"Did ___ character see the same happening in the same way? Provide evidence from the text to support your answer."

INTERPRETATION OR QUESTIONS ABOUT HYPOTHESES

"How might Shakespeare have written about this political scandal?"
"How would a modern-day musician (or scientist) interpret this classical piece (or early scientific finding)?"
"How might history have been different if Martin Luther King, Jr. had never delivered his famous 'I have a dream' speech?"
"Based on current social and political issues, what do you think future movies, novels, and plays will be about?"
"Can you support your opinion with a reference to the text?"
"Where else in the selection (or passage) does the author also suggest that...?"
"According to the author if his passage, should...?"
"Have you ever experienced the character's feelings? When?"
"How do the descriptions of characters in ___ reveal the author's voice?"
"How would the music be different if it were played in a major key, rather than a minor?"

EVALUATIVE QUESTIONS

"Do you agree or disagree with...?"
"Would you have made the same decision as ____ in these circumstances?"
"What do you think about the ending?"

CLARIFICATION QUESTIONS

"What do you mean by ...?"
"Please what you mean when you say..."
"How could you explain in your own words what ______ says (means)?"

SUPPORT QUESTIONS

"What is your reasoning?"
"What is your strategy?"
"What evidence do you have?"

Contributed by Mary Gray from Lane/Benton/Lincoln ESD 2003
Eight elements of thought identified by Richard Paul (1992) are the basic building blocks of productive thinking. Working together, they provide a general logic to reasoning. In literature interpretation and listening, they help one make sense of the reasoning of the author or speaker. In writing and speaking, they enable authors or speakers to strengthen their arguments.

Students are often asked to distinguish between facts and opinions. However, between pure opinion and hard facts lie reasoned judgments in which beliefs are supported by reasons. Instruction in this area needs to be included in all forms of communication in the language arts.

Teachers may use the elements to assist in crafting questions for class discussion of literature or questions for probing student thinking. Examples of such questions are given on the Wheel of Reasoning that follows the descriptions below.

The eight elements of reasoning are as follows:

Purpose, Goal, or End View
We reason to achieve some objective, to satisfy a desire, to fulfill some need. For example, if the car does not start in the morning, the purpose of my reasoning is to figure out a way to get to work. One source of problems in reasoning is traceable to "defects" at the level of purpose or goal. If our goal itself is unrealistic, contradictory to other goals we have, confused or muddled in some way, then the reasoning we use to achieve it is problematic. If we are clear on the purpose for our writing and speaking, it will help focus the message in a coherent direction. The purpose in our reasoning might be to persuade others. When we read and listen, we should be able to determine the author's or speaker's purpose.

Question at Issue (or Problem to Be Solved)
When we attempt to reason something out, there is at least one question at issue or problem to be solved (if not, there is no reasoning required). If we are not clear about what the question or problem is, it is unlikely that we will find a reasonable answer, or one that will serve our purpose. As part of the reasoning process, we should be able to formulate the question to be answered or the issue to be addressed.

For example, why won't the car start? or should libraries censor materials that contain objectionable language?

Points of View or Frame of Reference
As we take on an issue, we are influenced by our own point of view. For example, parents of young children and librarians might have different points of view on censorship issues. The price of a shirt may seem low to one person while it seems high to another because of a different frame of reference. Any defect in our point of view or frame of reference is a possible source of problems in our reasoning. Our point of view may be too narrow, may not be precise enough, may be unfairly biased, and so forth. By considering multiple points of view, we may sharpen or broaden our thinking. In writing and speaking, we may strengthen our arguments by acknowledging other points of view. In listening and reading, we need to identify the perspective of the speaker or author and understand how it affects the message delivered.

Experiences, Data, Evidence
When we reason, we must be able to support our point of view with reasons or evidence. Evidence is important in order to distinguish opinions from reasons or to create a reasoned judgment. Evidence and data should support the author's or speaker's point of view and can strengthen an argument. An example is data from surveys or published studies. In reading and listening, we can evaluate the strength of an argument or the validity of a statement by examining the supporting data or evidence. Experiences can also contribute to the data of our reasoning. For example, previous experiences in trying to get a car to start may contribute to the reasoning process that is necessary to resolve the problem.

Concepts and Ideas
Reasoning requires the understanding and use of concepts and ideas (including definitional terms, principles, rules, or theories). When we read and listen, we can ask ourselves, "What are the key ideas presented?" When we write and speak, we can examine and organize our thoughts around the substance of concepts and ideas. Some examples of concepts are freedom, friendship, and responsibility.
Assumptions
We need to take some things for granted when we reason. We need to be aware of the assumptions we have made and the assumptions of others. If we make faulty assumptions, this can lead to defects in reasoning. As a writer or speaker we make assumptions about our audience and our message. For example, we might assume that others will share our point of view; or we might assume that the audience is familiar with the First Amendment when we refer to "First Amendment rights." As a reader or listener we should be able to identify the assumptions of the writer or speaker.

Inferences
Reasoning proceeds by steps called inferences. An inference is a small step of the mind, in which a person concludes that something is so because of something else being so or seeming to be so. The tentative conclusions (inferences) we make depend on what we assume as we attempt to make sense of what is going on around us. For example, we see dark clouds and infer that it is going to rain; or we know the movie starts at 7:00; it is now 6:45; it takes 30 minutes to get to the theater; so we cannot get there on time. Many of our inferences are justified and reasonable, but many are not. We need to distinguish between the raw data of our experiences and our interpretations of those experiences (inferences). Also, the inferences we make are heavily influenced by our point of view and our assumptions.

Implications and Consequences
When we reason in a certain direction, we need to look at the consequences of that direction. When we argue and support a certain point of view, solid reasoning requires that we consider what the implications are of following that path; what are the consequences of taking the course that we support? When we read or listen to an argument, we need to ask ourselves what follows from that way of thinking. We can also consider consequences of actions that characters in stories take. For example, if I don't do my homework, I will have to stay after school to do it; if I water the lawn, it will not wither in the summer heat.

Graphic Organizers

**Graphic:** evoking lifelike images within the mind; "pictorial poetry and prose"; "graphic accounts of battle"; "a lifelike portrait"; "a vivid description" [**Synonyms:** lifelike, pictorial, vivid]

Source: *The American Heritage® Dictionary of the English Language, Fourth Edition*  
Copyright © 2000 by Houghton Mifflin Company.  
Published by Houghton Mifflin Company. All rights reserved.

**Organizer:** To put together into an orderly, functional, structured whole. To arrange in a coherent form; systematize. To arrange in a desired pattern or structure. [**Synonyms:** administrator, planner, manager]

Source: *WordNet® 1.6*, © 1997 Princeton University

**Graphic Organizer**

Graphic organizers map the process of the mind when it is actively problem-solving, making decisions, reasoning, creating, etc. As written and spatial arrangements of information, the graphic organizer proves to be a communication tool among learners. Information may be viewed as a meaningful whole and inter-relationships among ideas.

Discuss with students what graphic organizers are and how they can be used.

~Jackie Buisman
DIFFERENTIATED CURRICULUM CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS

Section VI  Models & Graphic Organizers

Graphic Organizer

ELEMENTS OF THOUGHT

<table>
<thead>
<tr>
<th>Name _______________________________</th>
<th>Date ____________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Question at Issue (Frame)</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inferences</td>
<td>Assumptions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Consequences and Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence; Data</td>
<td>Point of View: Audience/Speaker</td>
</tr>
</tbody>
</table>

Elements of Thought Graphic Organizer from VanTassel-Baska, J, Curriculum Planning and Instructional Design for Gifted Learners, Denver, Love Publishing  Reprinted with permission.
GRAPHIC ORGANIZER
PAUL’S REASONING WEB

Name ___________________________________________ Date ________________

Purpose/Goal

Point of View

Implications/Consequences

Evidence/Data

Inferences

Assumptions

Concepts/Ideas

Defining nation: Cultural identify and political tension.
(2002 DRAFT) Center for Gifted Education The College of William and Mary College. Funded by the Arthur Vining Davis Foundation. Pg. 32 Reprinted with permission.
Change may be positive:

… Or negative:

Change may be perceived as orderly:

… or random:

Change may happen naturally:

… or may be caused by

Change is linked to time:

Change is everywhere:

Directions: Develop a list of three to five examples for each of the following statements (generalizations) about change.
Name _______________________________________________ Date __________________

Pre-Research: Describe the issue or problem

Post-Research: Describe the issue or problem

Find Sources
- Library
- Internet
- Interviews
- Surveys

Synthesize Information to Create Presentation
- Glean important information
- Gather interesting facts
- Personalize information (e.g. poetry, give opinions)

Evaluate Presentation
- Reported important information
- Used visual to support information
- Received audience feedback
- Used effective speaking skills

Prepare Visual/Model
- Be creative (e.g. posters, costumes, re-enactment, overheads, slide show, video, time-line)

Deliver Presentation
- Use visuals to support information
- Present interesting facts
- Answer questions

Graphic Organizer from DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003
Name ____________________________________________ Date ________________

Select an issue of significance and explore it following the procedure below:

1. **Identify your issue or problem.**
   - What is the issue or problem?
   - Who are the stakeholders and what are their positions?
   - What is your position on this issue?

2. **Read about your issue and identify points of view or arguments through information sources.**
   - What are my print sources?
   - What are media sources?
   - What are my people sources?
   - What are my preliminary findings based on a review of existing sources?

3. **Form a set of questions that can be answered by a specific set of data.**
   - Examples:
     - A. What would be the results of ____________________?
     - B. Who would benefit and how much?
     - C. Who would be harmed and by how much?

   **My research question:**

---

Select an issue of significance and explore it following the procedure below:

4. Gather evidence through research techniques such as surveys, interviews, or experiments.
   - What survey questions should I ask?
   - What interview questions should I ask?
   - What experiments should I do?

5. Manipulate and transport data so that they can be interpreted.
   - How can I summarize what I found?
   - Should I develop charts, diagrams, or graphs to represent my data?

6. Draw conclusions and make inferences.
   - What does the data mean? How can I interpret what I found?
   - How does the data support your original point of view?
   - How does the data support other points of view?
   - What conclusions do you make about the issues?
Select an issue of significance and explore it following the procedure below:

7. **Determine implications and consequences.**
   
   What are the consequences of following the point of view that you support?
   
   Do I know enough or are there now new questions to answered?

8. **Communicate your findings. (Prepare an oral presentation for classmates based on note cards and written report.)**
   
   What are my purpose, issue, and point of view, and how will I explain them?
   
   How will I conclude my presentation?
### GRAPHIC ORGANIZER

#### NEED TO KNOW BOARD

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What do we know?</th>
<th>What do we need to know?</th>
<th>How can we find out?</th>
</tr>
</thead>
</table>

# K-W-L Worksheet

**What Students Know**

**What students Want (or need) to know**

**How will students Learn what they need to know?**

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
</table>

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Graphic Organizer from *Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks* ODE/TAG 2002
## Graphic Organizer
### Project Contract

**Describe the proposed project:**

**Proposed due dates for each part of the project, which must include at least two deadlines prior to the overall due date:**

- I will identify tasks that need to be done and initiate action to complete the tasks.
- I agree to keep a complete bibliography of works consulted and works cited.
- I will meet the learning objectives of the unit.
- I will plan, organize, and complete assigned tasks on time, meeting agreed upon standards of quality.
- I will maintain appropriate interactions within the classroom.
- I will consult with the teacher at least ________ times.
- I will participate in class activities when required.
- Other ____________________________

____________________________  __________________________  _______________________
Student’s signature                                              Teacher’s signature                                             Date
COMPARING AND CONTRASTING VENN DIAGRAM

Name _______________________________________________ Date _______________

-----------------------------

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Graphic Organizer from DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2002
SAMPLE # 41

GRAPHIC ORGANIZER

COMPARING INFORMATION

Name _______________________________________________ Date _______________

TOPIC: __________________________________________

[Diagram with arrows pointing to the sides of the page]

[Table with blank cells]
CURRICULUM #27

GRAPHIC ORGANIZER

CAUSE AND EFFECT

Name ___________________________ Date _______________

Effect
(then …)

Cause
(Because of …)

Effect
(then …)

Effect
(then …)

Effect
(then …)
GRAPHIC ORGANIZER
PRECIPITATING EVENT: LINE OF CONSEQUENCES

Name _______________________________________________ Date _______________

EVENT: ____________________________________________

1st order consequences (affects)

2nd order consequences (affects)

3rd order consequences (affects)

4th order consequences (affects)
### POSITIVE/NEGATIVE QUALITIES CITING SOURCES

<table>
<thead>
<tr>
<th>Positive Qualities</th>
<th>Evidence from Selection</th>
<th>Negative Qualities</th>
<th>Evidence from Selection</th>
</tr>
</thead>
<tbody>
<tr>
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Name __________________________________________ Date ________________

Please identify 5 examples:
RAFT

A model for planning for all ability students.

RAFT is an acronym for Role, Audience, Format and Topic.

In creating a RAFT grid: (See Graphic Organizer RAFT)
- consider the skills and content we want to teach students individually and collectively.
- plan to modify the content, process, or product of a student assignment based on student readiness, learning style, and or interests.
- modify the assignments based on a level that ranges from simple to complex, from concrete to abstract.

In meeting the needs of all learners in a Standards based classroom, the RAFT model can be an effective tool to help organize differentiated assignments. The concept of the RAFT organizer has been taken from a Carol Ann Tomlinson workshop.

Begin by creating five clusters of students; this number is flexible, you may create as many or as few tiers as needed, based on student readiness. Five clusters that would likely be found in a regular classroom are: 1) slow learners, 2) below average, 3) average ability, ( 4) academically talented and 5) intellectually gifted.

Select a theme based on Oregon State Standards. Collaborate with peers at your grade level. Have Oregon State Standards newspapers on hand as a point of reference. Using a chart based on Bloom’s Taxonomy may be helpful in this process. (See Models and Graphic Organizers Section VI.)

Assignments around a class theme may be developed with the high-end learner expected to work at two to three grade levels above.

DIFFERENTIATION EXAMPLES

Solar System Theme - Traveling in a space module, you leave Earth headed for Pluto passing other planets.

- Average students: Write a sentence, giving an important fact, about Mars, Jupiter, Saturn, Uranus, Neptune, Pluto as you pass on your way.
- Above average students: Research the planets that you will pass and fill out the Solar System Comparison Graphic Organizer. (3rd Grade Benchmark is to identify and trace the movement of objects in the sky.)
- High End Learners: Research the planets that you will pass and create a visual product that shows the earth in relation to the other planets. (5th Grade Benchmark is to describe the earth’s place in the solar system and the patterns of movement of objects within the solar system using pictorial models.)

See Solar System RAFT on the next page.
<table>
<thead>
<tr>
<th>Student Profile</th>
<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
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<tbody>
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</table>
### CONFLICT ANALYSIS

Name _______________________________________________ Date _______________

Novel/Short Story Title _______________________________________ Author ___________________________

1. Describe the Conflict. Include who is involved, what happened, and the outcome.

2. Describe the qualities of character shown by the antagonists in the conflict. Show how the qualities led to action.

3. Impact analysis: Show how the qualities of character effects a specific conflict or event in the plot—cause or solve?

4. Evaluation, Part 1: Were the qualities of character illustrated in this incident effective for the character, himself? Did it help him/her gain their goals? Explain your thinking.

5. Evaluation, Part 2: Were the qualities of character effective in helping achieve the author’s purpose? Explain your answer.
GRAPHIC ORGANIZER
A WEB TO GATHER MEDIA INFORMATION

Name _______________________________________________ Date _______________
Event _______________________________________________

EVENT

MEDIA GENRE
STRENGTHS/WEAKNESSES

FACTS

ADVERTISING
SPONSORSHIPS

OPINIONS

TARGET
AUDIENCE

POINT OF VIEW

BIAS

DIFFERENTIATED CURRICULUM CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS

CURRICULUM #22

GRAPHIC ORGANIZER

DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS
ODE/TAG 2003
HAMBURGER MODEL

The Hamburger Model is to provide students with a useful metaphor to aid them in developing a persuasive paragraph or essay. The model should be introduced by the teacher, showing students the top bun and the bottom bun represent the introduction and conclusion of any persuasive writing piece. The teacher should note that the reasons given in support of the thesis statement are like the meat and vegetable in a hamburger, providing the major substance of the sandwich. Elaboration represents the condiments in a sandwich, the ketchup, mustard, and onions that hold the sandwich together, just as examples and illustrations hold a persuasive writing piece together.

Teachers should show students example of hamburger paragraphs and essays and students find the bun, hamburger and condiments. Discuss how “good” each sandwich is.

Teachers may now ask students to construct their own “hamburger” paragraphs. After students have constructed their own paragraphs, teachers may use peer and self assessments to have students judge their own and one another’s writing.

What is the “top bun” or topic and opinion statement of the paragraph?

What is the writer’s “meat” or supporting information? How many reasons does the author provide? Are they convincing reasons? How did the writer add details and examples or extra fixings to the paragraph?

What is the “bottom bun” or conclusion to the paragraph?

DAGWOOD MODEL

The Dagwood Model or Club Sandwich is an elaborate version of the Hamburger paragraph or essay.

---

**Hamburger Model for Persuasive Writing Form**

Name _______________________________________________ Date _______________

Introduction (State your opinion)

Reason

Elaboration

Elaboration

Elaboration

Reason

Elaboration

Elaboration

Elaboration

Reason

Reason

Elaboration

Conclusion

---

**Name ___________________________ Date _______________**

**Claim/Opinion/Introduction**

- **Details**
- **Background**
  - **Details**

**Reason**

- Elaboration
  - Elaboration
  - Elaboration

**Other Points of View**

- Elaboration
  - Elaboration
  - Elaboration

**Conclusion**

---

### How to Create Your “Somebody Wanted …” Book

<table>
<thead>
<tr>
<th>Name __________________________</th>
<th>Date ______________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Title Page</th>
<th>Page 1</th>
<th>Page 2</th>
<th>Page 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Somebody wanted … but … so … finally … Book</strong></td>
<td>Somebody (choose a character)</td>
<td>Wanted (plot or goal)</td>
<td>But (tell the problem)</td>
</tr>
<tr>
<td><strong>Title</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Author</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Page 5</th>
<th>Page 6</th>
<th>Page 7</th>
<th>Page 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>So</strong> (tell events leading to solution)</td>
<td>Finally (tell the solution)</td>
<td></td>
<td>THE END</td>
</tr>
</tbody>
</table>

THE END

BLANK

Graphic Organizer from *Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks* ODE/TAG 2003
## INFORMATIVE SPEECH OUTLINE

<table>
<thead>
<tr>
<th>Name ___________________________</th>
<th>Date ______________</th>
</tr>
</thead>
</table>

### Setting Description ...

### Linkage Area ...

### Introduction (include an appropriate hook)

### Body

### Conclusion

### After your presentation, be ready to respond to the following question(s):

---

Graphic Organizer from *DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003*
Who are you and where do you fit in this community? (i.e., “My name is Jorgé and I am a minister at the local Hispanic Catholic Church.)

What are you here to address? (i.e., “I am here today to share my ideas with you on the topic of ____________________________

State “Here is what I think/believe” and say why.

State the reason: “I wanted to share my views with you because …” (Why is this an important issue for others to be aware?)

For closure, state “In conclusion… (Give a statement that summarizes your thoughts.)
What assumptions does the author make about the concept of change?

What evidence is presented that the central character is motivated by a given emotion?

What is the central issue in this story?

What concepts are central to understanding the story? What do we understand about these concepts?

What are the implications of character behavior at this point in the story?

What is the purpose of the poem/story?

What inferences might be made about the ending of the story based on

The Literature Web model encourages students to consider five aspects of a selection they are reading: key words (important, interesting, intriguing, surprising, or unknown to the reader), feelings (those of the reader), images or symbols, ideas, and structure of writing (anything you notice about how the piece is written, such as dialogue, rhyming, short sentences, or big words). The web helps students to organize their initial responses and provides them with a platform for discussing the piece in small or large groups. Whenever possible, students should be allowed to underline and to make marginal notes as they read and reread. After marking the text, they then organize their notes into the web.

Suggested questions for completing and discussing the web are described below:

**Key Words:** Think and look back over the story. What were some words or groups of words that you really liked or thought were really important? Why were they special words to you? What were some words that you thought were interesting or exciting?

**Feelings:** What feelings did you get when you read the story? What feelings do you think the characters had? What happened in the story to tell you how the characters were feeling? Why do you think you had the feelings that you did?

**Ideas:** What was the main idea of the story? What were some of the other ideas the author was trying to talk about? What was she saying about change?

**Images:** What were some of the key images of the piece? What hidden meaning did some of the symbols hold?

**Structure of Writing:** What are some important characteristics of the way this piece is put together? How does the rhyming pattern (or dialogue, short sentences, etc.) contribute to the piece? How is the structure important for the meaning of the piece?

After students have completed their webs individually, they should compare their webs in small groups. This initial discussion will enable them to consider the ideas of others and to understand that individuals interpret literature differently. These small groups may compile a composite web that includes the ideas of all members.

Following the small group work, teachers have several options for using the webs. For instance, they may ask each group to report to the class; they may ask groups to post their composite webs; or they may develop a new web with the class based on the small group work. However, each web serves to prepare students to consider various issues the teacher will raise in whole group discussion. It is important that teachers hold a whole group discussion as the final aspect of implementing the model as a teaching-learning device. Teachers are encouraged to post the poem or story under consideration on an overhead or wherever it can be seen as the discussion is held. The teacher should record ideas, underline words listed, and call attention to student responses visually.
**Key Words**
- Roads
- Diverged
- Traveler
- difference

**Feelings**
- Confidence
- Sorrow
- Doubt
- Resignation

**Reading**
**“The Road Not Taken”**
By Robert Frost

**Ideas**
- Decisions
- Freedom
- Independence
- Individuality

**Images or Symbols**
- Two roads
- Yellow woods
- Traveler
- diverging

**Structure**
- Rhyme pattern same across stanza
- Simple language
- Repetition of first line

---

**LITERATURE RESEARCH LOG**

| Name ___________________________ | Date ______________ |

**RESEARCH QUESTIONS:**

- **What do you want to know?**

- **Where did you look (i.e. library, internet, interviews)?**

- **What are your resources? Include URL if Internet based.**

- **What did you get answered?**

- **What new questions do you have?**

**RESEARCH REFLECTION**
### Graphic Organizer

**SYNTHESIS OF READING**

<table>
<thead>
<tr>
<th>Name ___________________________________________________________</th>
<th>Date ______________</th>
</tr>
</thead>
</table>

**Title of Book ___________________________________________**

**Author of Book _________________________________________**

<table>
<thead>
<tr>
<th>1. Topic being researched:</th>
<th>2. Important data you learned (general) list:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Important data you learned about topic (specific) list:</th>
<th>4. Write a paragraph summarizing relevant learning about your topic.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
# Graphic Organizer

## Understanding Creative Text

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Characterization</th>
<th></th>
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<tbody>
<tr>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>Problem and Issues</td>
<td></td>
</tr>
</tbody>
</table>

| Plot Sequence |  |

| Setting |  |

| Conflict |  |

| Theme |  |

| Style |  |

<p>| Genre Features (e.g., poetry, rhyme, meter, subject matter) |  |</p>
<table>
<thead>
<tr>
<th>Title of Biography</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did this person contribute to the world?</td>
<td>What are the results of the contribution.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title of Biography</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did this person contribute to the world?</td>
<td>What are the results of the contribution.</td>
</tr>
</tbody>
</table>
The purpose of the Vocabulary Web model is to enable students to gain an in-depth understanding of interesting words. Rather than promoting superficial vocabulary development, the web approach allows for deep student processing of challenging and interesting words.

An example of a vocabulary web activity is given below. The teacher should introduce the activity by exploring the web with the whole class. General steps are listed below, with the word *diverge* as an example:

1. Introduce a Vocabulary Web. Put students in groups of no more than four, with a dictionary available as a resource in each group. Distribute copies of a blank Vocabulary Web and ask students to write the word *diverge* in the center. Ask for an explanation of what the word means within the context of a given piece of literature. Have students find the word in the story and write the sentence in which it is found in the "Sentence" cell of the Vocabulary Web.

2. Ask students to look in their dictionaries to find the definition of the word. Display an enlarged copy of the definition on the board or overhead. Have students write the definition relevant to the story into the "Definition" cell of the Vocabulary Web.

3. In their groups, have students develop their own sentences using the word. Ask them to write the sentence in the "Example" cell.

4. Discuss the meanings of the words *synonym* and *antonym*. Have students check the dictionary and think about possible synonyms and antonyms for the word and fill them into the appropriate cells. (Note: Not all cells must be filled for all words; there may not be synonyms and antonyms for all of the words studied.)

5. Ask students what is meant by the phrase "part of speech." Have them locate the part of the dictionary definition that identifies a word's part of speech. Students should then write the part of speech for the word *diverge* into their group webs.

6. Encourage students to think about the stems of the word, or the smaller words and pieces of words from which the larger word is made. These include prefixes, suffixes, and roots. Encourage students to check the dictionary for possible stems. Write any identified stems into the appropriate cell of the Vocabulary Web.

7. Have students locate the origin of the word (Latin, French, Greek, etc.) in the definition and write it in the "Origin" cell of the Vocabulary Web.

8. Ask students to think of other words in the same family as the word *diverge* or other words which use one or more of the same stems. Encourage them to use their ideas from the stems cell to give them ideas.

9. Discuss the Vocabulary Webs developed by the student groups.

---

**Vocabulary Web Example**

**Word:** diverge

**Sentence:** Two roads diverged in a yellow wood.

**Definition:** To go or extend in different directions from a common point.

**Synonyms:** branch, differ

**Antonyms:** converge, concur

**Part of Speech:** verb

**Word Families:**
- verge
- converge
- divergent
- convergent

**Stems:**
- dis: apart
- verge: to bend

**Origin:** Latin

**Example:** After they all graduated from high school together, the friends' lives diverged as some stayed in town and others moved away.

**VOCABULARY WEB**

**Name** ____________________________________________  **Title** ____________________________________________

**Word:**

**Definition:**

**Sentence:**

**Example:**

**Synonyms:**

**Antonyms:**

**Part of Speech:**

**Analysis**

**Word Families:**

**Stems:**

**Origin:**


Graphic Organizer
CHARACTER ANALYSIS

Name ___________________________________________ Title ________________________________

Beliefs, Values, Thoughts

Background (Age, Gender, Education, Family)

Significant Events in Life

Mannerisms

3-5 Words to Describe Character (i.e. intense)

Characteristic Expressions (i.e. smiling, frowning, serious)
Use the grid below to track qualities of character such as cowardice/bravery, ambition/laziness, loyalty, selfishness, chapter by chapter. Analyze how these qualities affect the plot and resolution of conflict.

- Quality of character identified, including a specific text example of that quality in action.
- Character quality impact on a specific event in the plot or conflict will be discussed—did the quality cause the problem or help with the resolution?

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Character Quality (e.g., courage) include quote and page number</th>
<th>Analyze character quality impact on a specific event or conflict in the plot—(cause or solve)</th>
<th>Effective for conflict resolution or used to help achieve author’s purpose?</th>
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</thead>
<tbody>
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</tbody>
</table>
CURRICULUM #48

GRAPHIC ORGANIZER

BEHAVIOR CHARACTERISTICS

Name ________________________________ Date ________________

Positive Behavior Characteristics

Characteristics in Relationship to Problem Resolution

Negative Behaviors Characteristics

---

Graphic Organizer from DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003
## Graphic Organizer

### Antagonist/Protagonist Characteristics

<table>
<thead>
<tr>
<th>Name _____________________________</th>
<th>Date ____________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Point of View of</th>
<th>Point of View of</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Character's name)</td>
<td>(Character's name)</td>
</tr>
</tbody>
</table>

---

Graphic Organizer from *Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks ODE/TAG 2003*
Name _______________________________________________ Date ________________

Government _______________________________________________

Focus Question

Assumptions

Data, Evidence

Issue

Concept

Implications

Point of View

Purpose

Inferences

---

<table>
<thead>
<tr>
<th>Issue</th>
<th>LOCAL</th>
<th>STATE</th>
<th>FEDERAL</th>
</tr>
</thead>
</table>

| Name __________________________ | Date ____________ |

Graphic Organizer from \textit{Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks} ODE/Tag 2003
### Personal, Ethical and Humanitarian Responsibilities

How is the media responsible for ______? How are you responsible for your ______ and that of others?

<table>
<thead>
<tr>
<th>MEDIA Ethical Journalism</th>
<th>SELF Personal and Social</th>
<th>MEDIA Ethical Journalism</th>
<th>SELF Personal and Social</th>
<th>MEDIA Ethical Journalism</th>
<th>SELF Personal and Social</th>
<th>MEDIA Ethical Journalism</th>
<th>SELF Personal and Social</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Fill in the responsibility blank once the topic is determined and then fill in the groups under the headings. For example, topic is health, and groups could be cancer, cold, seat belts and drugs.

Graphic Organizer from *Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks* ODE/TAG 2003
**Responsibility to Other Agencies**

Name ___________________________ Date _______________

How is each entity responsible to the other entity for the issue of ____________________?

<table>
<thead>
<tr>
<th>The issue written in below:</th>
<th>LOCAL</th>
<th>STATE</th>
<th>NATIONAL</th>
<th>CITIZEN</th>
<th>MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>LOCAL</td>
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<tr>
<td>STATE</td>
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<tr>
<td>FEDERAL</td>
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<tr>
<td>CITIZEN</td>
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<tr>
<td>MEDIA</td>
<td></td>
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</tr>
</tbody>
</table>
### SIGNIFICANT EVENTS

Name _______________________________________________ Date _______________

Famous Person______________________________________________

<table>
<thead>
<tr>
<th>Important Events in the Famous Person's Life</th>
<th>Concurrent Important Historical Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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</tr>
<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
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<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

Graphic Organizer from *DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS* ODE/TAG 2003
**Graphic Organizer**

**Significant Events: Life Changing Experiences**

- **Past Experiences**
- **Foreshadowing**
- **Who else was impacted by event?**
- **Settings (local, national, international)**
- **Consequences**
- **Emotions**
- **Needs of character**
- **Moral/ethical views of character**
- **Moral/ethical views of others**

*Graphic Organizer from Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks ODE/TAG 2003*
Identify person’s influences that led to a major contribution to mankind.

Influence on Issue(s)

Influence on Event(s)

Influential Person

Historical Time Period

Influence on People

Influence on Development(s)

Name ___________________________ Date ________________

Graphic Organizer from DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003
<table>
<thead>
<tr>
<th>Name important people</th>
<th>Relationship to person</th>
<th>How did these people influence the famous person?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
Name __________________________________________ Date

Person ______________________________________

Contribution:

When was the contribution made?

Where did the person come from?

In what scientific field did the person make his contribution?

Was the contribution planned, or did it occur accidentally? Explain:

How did the contribution change peoples’ lives?

How would the world be different today if the contribution had not been made?
<table>
<thead>
<tr>
<th>Civilization</th>
<th>Time Period</th>
<th>Location</th>
<th>Modifications to the Environment</th>
<th>Changes in Living Style</th>
<th>Changes in Religious Beliefs</th>
<th>Changes in Government Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesopotamia</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Egypt</td>
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<td></td>
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<tr>
<td>India</td>
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<tr>
<td>China</td>
<td></td>
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<tr>
<td>The Americas</td>
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</tr>
</tbody>
</table>
Cause and Effect of War

Name the war being studied: ________________________________

- Cultural Effects
- Economic Effects
- Political Effects
- Societal Effects
- WAR CAUSES

Graphic Organizer from DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003
## Table: Impact of War: Consequences

<table>
<thead>
<tr>
<th>Below Name Wars Being Studied:</th>
<th>Changes Caused by Event</th>
<th>Changes Occurring Concurrently with Event</th>
<th>Changes as a Result of the Event (Contemporary Manifestations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>War</td>
<td></td>
<td></td>
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<tr>
<td>War</td>
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<td>War</td>
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<tr>
<td>War</td>
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</tbody>
</table>

Graphic Organizer from *DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003*
## Graphic Organizer

**IMPACT OF HISTORICAL EVENTS ON SOCIETAL ACTIVITIES**

<table>
<thead>
<tr>
<th>Name _______________________________</th>
<th>Date __________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MAJOR EVENTS AND DATES</th>
<th>ART</th>
<th>MUSIC</th>
<th>SCIENCE</th>
<th>ECONOMICS</th>
<th>LITERATURE</th>
<th>RELIGION</th>
</tr>
</thead>
<tbody>
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</table>

Graphic Organizer from *DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS* ODE/TAG 2003
GRAPHIC ORGANIZER

A WEB TO GATHER GOVERNMENT INFORMATION

Name _______________________________ Date _______________

Government ____________________________________________

Key events that led to creation of their government system.

Health

Historical Contributors

Key Leaders

Effects on Citizens

Family

Occupation

Life Style

Graphic Organizer from DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS ODE/TAG 2003
Graphic Organizer
GOVERNMENT BRANCHES

Name _______________________________________________ Date _______________

<table>
<thead>
<tr>
<th>Legislative</th>
<th>Executive</th>
<th>Judicial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powers</td>
<td>Powers</td>
<td>Powers</td>
</tr>
<tr>
<td>Limitations</td>
<td>Limitations</td>
<td>Limitations</td>
</tr>
</tbody>
</table>

Graphic Organizer from *DIFFERENTIATED CURRICULUM: CHALLENGING HIGH END LEARNERS ADDRESSING OREGON STANDARDS & BENCHMARKS* ODE/TAG 2003
What is the Situation?

Who are the stakeholders for this situation?

What is the point of view for each stakeholder?

What are the assumptions of these views?

What are the implications of these views?

## Graphic Organizer

### LINKAGE OVER TIME: THE HUMAN EXPERIENCE

<table>
<thead>
<tr>
<th>Name _______________________________</th>
<th>Date _______________</th>
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<table>
<thead>
<tr>
<th>TIME FRAME</th>
<th>HISTORY</th>
<th>LITERATURE</th>
<th>RELIGION, PHILOSOPHY, LEARNING</th>
<th>VISUAL ARTS</th>
<th>MUSIC</th>
<th>SCIENCE, TECHNOLOGY, MATH, COMMUNICATIONS</th>
<th>DAILY LIFE, HISTORY, COMMUNICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>POLITICS</td>
<td>THEATER</td>
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### DESCRIPTION OF LINKAGE

### SIMILARITIES TO LITERATURE STUDIED

### DIFFERENCES TO LITERATURE STUDIED
Graphic Organizer

**LINKAGE INVESTIGATION**

Name ___________________________________________ Date __________

Linkage Area Explored _____________________________________________________________________________

**Resources/References used ...**

**Information found ...**

**What were the themes or major issues of your linkage area?**

**Were the significant personalities in your area of study? If so, who were they and what were their contributions?**

---

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**STATE: OREGON ENVIRONMENTAL CHARACTERISTICS I**

<table>
<thead>
<tr>
<th>Region</th>
<th>Environmental Characteristics</th>
<th>How do these affect who live in the region?</th>
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**NAME _______________________________________________ DATE _______________**
# State: Oregon Environmental Characteristics II

**Graphic Organizer**

<table>
<thead>
<tr>
<th>Region</th>
<th>List Environmental Characteristics</th>
<th>Describe Population</th>
<th>Describe Cultural Characteristics</th>
<th>Describe Economics: How people make their living</th>
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</thead>
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Name ___________________________ Date ________________

Graphic Organizer from *Differentiated Curriculum: Challenging High End Learners Addressing Oregon Standards & Benchmarks* ODE/TAG 2003
<table>
<thead>
<tr>
<th></th>
<th>Scientific Problem: What do we need to find out?</th>
<th>Resources: What materials do we have available?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>4. Hypothesis: What do we think will happen?</td>
</tr>
<tr>
<td></td>
<td>Resources: How can we use these materials to help us find out?</td>
<td>5. Designing the Investigation: What will we need to observe or measure in order to find out the answer to our scientific question.</td>
</tr>
</tbody>
</table>

Name ___________________________ Date _______________
Topic _________

Assumptions ➔ Data, Evidence ➔ Concept

Issue ➔ Focus Question ➔ Point of View

Implications ➔ Purpose ➔ Inferences
1. How often am I going to take my measurements?

________________________________________________________________________________________________

2. What are the ways I changed the dependent variables (different kinds of soil/different ways of watering/different kinds of light?)

A. ______________________________________________  B. ______________________________________________

C . _____________________________________________  D. ______________________________________________

3. What am I measuring (height, weight, numbers of things)?

________________________________________________________________________________________________

4. For what other things should I be looking?

________________________________________________________________________________________________
Framing the Investigation

A. Make a list of your own ideas for an investigation.

B. Select one of your ideas and write your ideas as a:
   1. Question to answer OR
   2. Hypothesis to test

C. Describe background knowledge (preliminary observations) that:
   1. Relate to the Investigation AND
   2. Clarify the purpose of your experiment.
Designing the Investigation

A. Make a list of the kind of data you will need to:
   1. Answer your question OR
   2. Test your hypothesis
   Make sure your design is scientifically logical, safe, and ethical.

B. Decide what must be done to have a fair test of your question or hypothesis, then describe a practical design that will give the right kind of data (to answer your question or test your hypothesis).

C. Write out the procedure that you decided on.
   Describe a general plan and include details on some of your procedures. You procedure must be clear enough that another person could repeat your experiment.
Collection and Presentation of Data

A. Design a data table (or other format) for your measurements and/or observations. You must include labels and units of measurement, e.g. time in hours vs. temperature in Celsius.

B. Carry out your investigation, recording the measurements and observations you need to answer your question or test your hypothesis. Record your measurements and observations carefully.

C. Transform your data (do calculations, reorganize information, make graphs, charts, tables, etc.) to help you look for patterns, trends, and/or an answer to your questions. Your data displays should clarify your results.
Analyzing and Interpreting Results

A. Report the results of your investigation, identify patterns, and propose explanations. Use science concepts, models and terminology in your explanation.

B. Address your question or hypothesis:
   1. Answer your question or explain why you cannot OR
   2. Explain how the test of your hypothesis came out.

C. Review your investigation for possible errors in the measurements or observations. Explain the limitations of your conclusions. Review the design/and/or procedure and suggest design improvements, if possible.
### Student Experiment Worksheet

**Name _______________________________ Date ________________**

**Title of Experiment_____________________________________**

<table>
<thead>
<tr>
<th><strong>1. Hypothesis</strong></th>
<th><strong>2. Independent Variable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Educated guess about what will happen):</td>
<td>(The variable that you change):</td>
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</table>

<table>
<thead>
<tr>
<th><strong>3. Dependent Variable</strong></th>
<th><strong>4. Observations/Measurements to Make:</strong></th>
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<tbody>
<tr>
<td>(The variable that responds to changes in the independent variable):</td>
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<tr>
<th><strong>5. Constants</strong></th>
<th><strong>6. Control</strong></th>
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<tbody>
<tr>
<td>(All the things or factors that remain the same):</td>
<td>(The standard for comparing experimental effects):</td>
</tr>
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</table>
# Student Survey Data Table Worksheet

**Name** ____________________________________________ **Date** ____________

Classmates in ________ grade classroom. **Teacher** ____________________________

## TOPIC:

<table>
<thead>
<tr>
<th>NAME</th>
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