JUNE MAKER'S MODEL
CONTENT MODIFICATIONS

1. *ABSTRACTNESS*

Within every subject taught or every traditional content area, the information can be ordered on a rough continuum from concrete to abstract, based on how far removed it is from objective reality.

Example: In mathematics,

zero	infinity
concrete	abstract

2. *COMPLEXITY*

This modification is closely related to abstractness. Although it is difficult to think of a complex idea that is not also abstract, it seems possible that some abstract ideas are quite simple. Generalizations are more complex than concepts.

Example: 2 + 2 = 4 2, 4, 6, 8, 10, 12 _____ complex

3. *VARIETY*

This modification is synonymous with the word enrichment.

Example: oceanography, herpetology, geology, robotics, etc.

4. *ORGANIZATION AND ECONOMY*

By organizing the content to be taught around central ideas, educators can provide a setting where the specific facts are chosen carefully to illustrate abstract ideas.

Example: Rather than teaching facts and concepts about the American Revolution, French Revolution, Cuban Revolution, etc., center instruction around revolution.

5. *THE STUDY OF PEOPLE*

This study should include an examination of the following aspects of people's lives: (a) their personal or internal characteristics, such as their motivations, their family backgrounds, and their personality types; (b) their career characteristics, including the creative processes they use, their leadership styles, the type of products they have developed; and (c) their social characteristics, or the ways in which they interact with others and others with them.

6. *METHODS OF INQUIRY*

Studying content the way an historian, scientist, astronomer, etc., would study gives students who are gifted the opportunity to understand the complexities of an area of study. It provides a setting where they can analyze the methods used by scholars and leaders in various disciplines.

JUNE MAKER'S MODEL
PROCESS MODIFICATIONS

1. ***HIGHER LEVELS OF THINKING***
   Changing the emphasis from memory or recall to higher levels such as analysis, synthesis, and evaluation.

   Example: "How is a heart similar to the pump in a fish tank?" vs.
   "List the parts of the heart."

2. ***OPEN-ENDEDNESS***
   This approach implies a different teacher attitude reflected in: (a) questioning techniques, as well as the content of questions; (b) the design of learning experiences; and (c) evaluation of student responses to questions.

   Example:
   CLOSED—Do you think that excessive TV watching has an effect on family interaction?
   OPEN—What, if any, effect do you feel TV watching has had on family interaction?

3. ***THE IMPORTANCE OF DISCOVERY***
   In a discovery approach, students are encouraged to form hypotheses and make informed guesses—inductive vs. deductive reasoning.

   Example: From our brief discussion of the Civil War, what do you think the reasons for this happening might be?

4. ***CITATIONS OF PROOF AND EVIDENCE OF REASONING***
   It is not only important to give students opportunities to discover information or use higher levels of thought. They should also be required to express not only their conclusions, but also the logic or reasoning process they use in arriving at those conclusions.

   Example: What are your reasons for thinking that TV watching lowers the level of family interaction?

5. ***FREEDOM OF CHOICE***
   Allowing gifted students the flexibility to choose topics to study, methods to using the process, and the environment in which to pursue them is an important method for facilitating success with other systems as well as a way to build upon the learning and motivational characteristics of these children.

   This choice may be made in the following four areas: (a) deciding what is to be learned; (b) selecting the method and materials; (c) communicating with others about the subject; and (d) evaluating achievement of goals.

6. *GROUP INTERACTION ACTIVITIES AND SIMULATIONS*

These are tools for enhancing a working group's effectiveness as well as for unlocking the potential of each individual by developing the ability to relate to others more effectively. Essential elements are: (a) contrived, structured, or simulated group interaction situation; (b) honest feedback from other participants regarding one's behavior; and (c) honest self-analysis or critique by each participant.

7. *PACING AND VARIETY*

Pacing refers to the speed at which information is presented in the learning situation. Variety is the range and number of types of procedures used. Both are necessary to maintain student interest and avoid boredom.

Examples of Pacing: GEM (Gifted Education in Mathematics) Program Content
Examples of Variety: Discussions, learning centers, logic games, simulations, lectures, films, role-playing, etc.

JUNE MAKER'S MODEL
PRODUCT MODIFICATIONS

1. *REAL PROBLEMS AND REAL AUDIENCE*

A student who is learning complex and abstract ideas or thought systems cannot conclude the process with a report taken from the encyclopedia. Carrying the process to its logical conclusion, the student's product should be evaluated by scholars in the field (or at least by a teacher using a similar assessment).

Example: After researching a pond near the school, students found that the water was contaminated by chemical wastes that were being dumped by a certain company's trucks.

They went to the company, the county water management district, to local newspapers, and to the city manager, describing their findings.

2. *APPROPRIATE EVALUATION*

These should include assessment by teacher using pre-established criteria, self-evaluation by the pupil, and evaluation by the real audience or a simulation of one.

3. *TRANSFORMATIONS vs. SUMMARIES*

Students should report original research transforming information gathered into interpretations and conclusions rather than paraphrasing information gathered in encyclopedias.

JUNE MAKER'S MODEL
LEARNING ENVIRONMENT MODIFICATIONS

1. ***STUDENT-CENTERED vs. TEACHER-CENTERED***
   Pupils' ideas and interests vs. teacher methods and ideas.
   One of the toughest aspects to change when moving from teacher-directedness to student-directedness is to convince children that the instructor is not or should be the final authority in answering questions. Gifted students often become frustrated when the teacher won't tell them whether their answers or hypotheses are right or wrong.

2. ***INDEPENDENCE vs. DEPENDENCE***
   Focus should be on classroom climate variables necessary to achieve student independence.

   Example: If students are fighting, the first thought is for the teacher to intervene and solve the problem. However, if the teacher's goal is to develop independence, intervention tactics must be different. Some sort of stop-action is certainly needed, but the next step might be to elicit possible solutions rather than impose one.

3. ***OPEN vs. CLOSED***
   This type of environment permits new people, new materials, and new things to enter. The environment is not static, but rather changes when necessary or desirable.

4. ***ACCEPTING vs. JUDGING***
   (a) Attempt to understand; (b) deferred judgment, knowing when to evaluate; (c) evaluation, rather than judgment.

5. ***COMPLEX vs. SIMPLE***
   Not only is complex content important, but gifted students also need a more complex physical environment. This includes a variety of materials, a balance of hard and soft elements, variety of colors, asymmetric rather than symmetric arrangements and many types of spaces or environments for learning.

6. ***HIGH MOBILITY vs. LOW MOBILITY***
   This refers to the amount of movement needed by students who are gifted in and out of the classroom; differing grouping arrangements; access to a variety of learning/investigating environments; and access to a variety of materials, references, and equipment.