The National Research Center on the Gifted and Talented

www.gifted.uconn.edu
What Is a Model?

<table>
<thead>
<tr>
<th>Common Goals</th>
<th>Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>All roads lead to Rome…</td>
<td>(Theory Supported by Research)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unique Means</th>
<th>Engineering (Practice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>…but there are many ways to get to Rome.</td>
<td></td>
</tr>
</tbody>
</table>
There is no one ‘best way’...here is what we mean by a continuum of services...

The Integrated Continuum of Special Services

<table>
<thead>
<tr>
<th>Elementary School</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Classroom enrichment Type I and Type II Enrichment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum Compacting, Modification, and Differentiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Talent Portfolio, Individual and Small Group Advisement, and Type III Enrichment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnet and Charter Schools, School Within a School</td>
<td>Special Schools</td>
<td></td>
</tr>
<tr>
<td>Within Class and Non-Graded Cluster Grouping by Skill Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within and Across Grade Pull-Out Groups by Targeted Abilities and Interest Areas</td>
<td>Within Grade Level and Across Grade Level Advanced Classes</td>
<td></td>
</tr>
<tr>
<td>Enrichment Clusters</td>
<td>Academies of Inquiry and Talent Development</td>
<td></td>
</tr>
<tr>
<td>Special Enrichment Programs: Young Writers, Saturday and Summer Programs, Future Problem Solving, Odyssey of the Mind, Destination Imagination, Math League, Science Fairs, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Options: Internships — Apprenticeships — Mentorships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceleration Options: Early Admissions — Subject Acceleration — Grade Skipping — College Classes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Schoolwide Enrichment Model

Joseph S. Renzulli & Sally M. Reis

www.gifted.uconn.edu

The Total Talent Portfolio

Curriculum Modification Techniques

Enrichment Learning and Teaching

- TYPE I
  - GENERAL
  - EXPLORATORY ACTIVITIES
- TYPE II
  - GROUP
  - TRAINING ACTIVITIES
- TYPE III
  - INDIVIDUAL & SMALL GROUP
  - INVESTIGATIONS OF REAL PROBLEMS

REGULAR CLASSROOM

ENVIRONMENT

School Structures

The Regular Curriculum

The Enrichment Clusters

The Continuum of Special Services

Resources

- Identification Instruments
- Curriculum Materials
- Staff Development Training Materials
- Evaluation Instruments

Organizational Components

Service Delivery Components
The main focus of The Schoolwide Enrichment Model is to apply the pedagogy of gifted education to total school improvement.

All students, from struggling learners to our most advanced students do better in an atmosphere that values diversity among fellow students’ talent areas and unique strengths, and a broad range of learning options that are designed to promote high levels of achievement, creative productivity, motivation, and respect for the uniqueness of each student.
SEM Overview
The Basics...
Two underlying theories

1. Theory of Human Potential
   What makes giftedness?

2. Theory of High-end Learning
   How do we develop giftedness?

Check out: “The Definition of High End Learning” at:
http://www.gifted.uconn.edu/sem/semart10.html
WHAT MAKES GIFTEDNESS?

Above Average Ability

Task Commitment

Creativity
<table>
<thead>
<tr>
<th>Traditional (Conservative)</th>
<th>Contemporary (Liberal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gifted Students Defined</td>
<td>Gifted Behaviors and Services Defined</td>
</tr>
<tr>
<td>Formal Identification</td>
<td>Flexible Identification</td>
</tr>
<tr>
<td>Certified “Gifted”</td>
<td>Development of Gifted Behaviors</td>
</tr>
<tr>
<td>Grouping by Ability</td>
<td>Grouping by Interests, Motivation, Learning Styles, and Tasks</td>
</tr>
<tr>
<td>Funding by “Body Count”</td>
<td>Funding by Total District Population</td>
</tr>
<tr>
<td>Designated Teachers for Gifted Students</td>
<td>Designated Schoolwide Enrichment Teaching Specialists</td>
</tr>
</tbody>
</table>
Two Types of Giftedness

Schoolhouse or Lesson Learning Giftedness

Creative/Productive Giftedness
What does creativity look like in young people?
Type III

A real product with a real audience...
Christmas

It looked like a merry Christmas after all. Jo awoke on this special morning to find a lovely crimson book of the story of Christmas. But, when the girls went downstairs, their dear Marmee had gone. Hannah, the cook, informed them that she had gone to help a poor family. When Marmee returned, the Marches celebrated by giving the poor family their breakfasts.

When the Marches arrived at the poor family’s house how the big eyes stared and blue lips smiled.  
‘Ach, mein Gott! It is good angels come to us!’
said the poor woman, crying for joy.  
‘Funny angels in hoods and mittens,’
said Jo, and set them all laughing.

_Little Women, p. 26_

Anyone would be pleased to be served this lovely breakfast, even if it weren’t Christmas.

**BUCKWHEAT CAKES**

_**Difficulty = **_

**Ingredients:**
- 1/3 cup of fine bread crumbs
- 2 cups of very hot milk (scalded)
- 1/2 tsp. of salt
- 1 tablespoon of molasses
- 1/4 yeast cake
- 1/2 cup of lukewarm water

**Buckwheat flour**

**Materials:**
- Measuring cup
- Measuring spoons
- Griddle or frying pan
- Ladle
- Spatula

**Method:**
1. Pour the milk over the bread crumbs.
2. Let them soak for thirty minutes.

_Figure 74. Type III enrichment sample—Louisa May Alcott cookbook (continued)._
Type III in Underwater Robotics

2004 ROV (Remotely Operated Vehicle) from Edgewater High School, Orlando, Florida
MATE Center/MTS ROV Competition for High School and College Students

Edgewater High School 2003 ROV

Edgewater High School 2004 Team Orlando Robotics Club
### Renzulli Identification System

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td><strong>Test Score Criteria</strong>&lt;br&gt;99th %ile Test Score Nominations&lt;br&gt;[Automatic, and Based on Local Norms]</td>
</tr>
<tr>
<td>Step 2</td>
<td><strong>Non-Test Criteria</strong>&lt;br&gt;Approximately 50% of The Talent Pool&lt;br&gt;Teacher Nominations&lt;br&gt;[Automatic Except in Cases of Teachers Who Are Over or Under Nominators]</td>
</tr>
<tr>
<td>Step 3</td>
<td><strong>Alternative Pathways</strong>&lt;br&gt;Case Study</td>
</tr>
<tr>
<td>Step 4</td>
<td><strong>Special Nominations</strong>&lt;br&gt;Case Study</td>
</tr>
<tr>
<td>Step 5</td>
<td><strong>Notification of Parents</strong></td>
</tr>
<tr>
<td>Step 6</td>
<td><strong>Action Information Nominations</strong></td>
</tr>
</tbody>
</table>

Total Talent Pool Consists of Approximately 15% of the General Population

Test Score Criteria [Approximately 50% of The Talent Pool]

Non-Test Criteria [Approximately 50% of The Talent Pool]
The Schoolwide Enrichment Model

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Service Delivery Components

School Structures

The Total Talent Portfolio

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REGULAR CLASSROOM

ENVIROMENT

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- Curriculum Materials
- Staff Development Training Materials
- Evaluation Instruments

Organizational Components
The Total Talent Portfolio

Looking at three kinds of strengths...
If I ran the school, I would choose to learn about these ten things. I have thought about my answers very carefully and I have circled my best ideas for right now.

I am really interested in:

Science
1. The Stars and Planets
2. Birds
3. Dinosaurs and Fossils
4. Life in the Ocean
5. Trees, Plants, and Flowers
6. The Human Body
7. Monsters and Mysteries
8. Animals and Their Homes
9. Outer Space, Astronauts, and Rockets
10. The Weather
11. Electricity, Light, and Energy
12. Volcanoes and Earthquakes
13. Insects
14. Reptiles
15. Rocks and Minerals
16. Machines and Engines
17. Diseases and Medicine
18. Chemistry and Experiments

Social Studies
1. Families
2. The Future
3. Our Presidents
4. The United States
5. Other Countries
6. History and Long Ago Times
7. Famous Men and Women
8. Problems We Have in Our Town
9. Holidays
10. Native Americans, Asian Americans, Hispanics and African Americans
11. Explorers
12. People Who Live and Work in Our Town
13. Travel and Transportation
Math
1. Math Games and Puzzlers
2. Measuring Lines, Liquids, Weight
3. Shapes and Sizes
4. Buying and Money
5. Calculators and Computers
6. Building
7. Counting and Numbering
8. Calendars and Time
9. Math Stories and Problems

Arts
1. Cartoons
2. Art Projects
3. Painting
4. Clay
5. Acting
6. Dancing
7. Drawing
8. Writing Music
9. Photography
10. Movies
11. Puppets
12. Radio and Television
13. Famous Artists and Their Work
14. Making New Toys
15. Magic
16. Mime

Language Arts
1. Writing a Book
2. Writing Poems
3. Writing Plays and Skits
4. Writing Newspapers
5. Making Speeches
6. Sign Language
7. Making a Book
8. Comic and Cartoon Strips
9. Letter Writing
10. Spanish and French
11. Talking and Listening to Stories
12. Making a New Game or Puzzle

Careers
1. Doctors
2. Lawyers
3. Police Work
4. Fire Fighters
5. Scientists
6. Builders
7. Reporters
8. Store Workers
9. Sports Stars
10. Actors
11. Veterinarians
12. Farmers
13. Writers
14. Engineers
15. Artists
16. Inventors

You forgot to list some of my very special interests. They are: ___________
Interest Inventory Factor Structure

Written Products
Oral Products
Artistic Products
Computer Technology
Audio/Visual Technology
Commercial Products
Service Products
Dramatization Products
Manipulative Products
Musical Products
**LEARNING STYLES INVENTORY**

*Directions:* Read each sentence and decide if it describes an activity that you would like to do in school. For each sentence circle the number that goes with how well you like or dislike each activity. Remember this is not about what you get to do in school but what you would like to do. Be sure to mark an answer for each of the sentences.

<table>
<thead>
<tr>
<th></th>
<th>Really Like</th>
<th>Like</th>
<th>Not Sure</th>
<th>Dislike</th>
<th>Really Dislike</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Going to the library with a committee to look up information.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2. Studying on your own to learn new information.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3. Having the teacher ask the class questions on work that was assigned to be studied.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4. Having a class discussion on a topic suggested by the teacher.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5. Having other students who are experts on a topic present their ideas to the class.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6. Working on assignments where the questions are arranged in an order that helps you get them right.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7. Being a member of a panel that is discussing current events</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Factorial Structure of the Learning Styles Inventory

1. Projects
2. Drill and Recitation
3. Peer Teaching
4. Discussion
5. Teaching Games
6. Independent Study
7. Program Instruction
8. Lecture
9. Simulation
Let’s look at a few sample portfolios...
Me, Myself and I!
A Total Talent Portfolio

My Name ________________________ My Teacher’s Name ________________________ My Grade ________________________

This booklet is about you! We would like your mom or dad to help you fill out this interest inventory. An interest inventory is a series of questions about subjects you like best in school and activities you prefer to do outside of school. Your parent or guardian is to help you understand what is being asked and help you think about all of the activities that you do on your own. The answers to the questions should be your answers, not your mom or dad’s. The reason we are asking you to complete this inventory is so we can get to know you better. If we know what fascinates you and how you like to learn best, we can help to make your days in school more interesting and successful. Please take your time as you complete this booklet. Think carefully about the questions, there is no need to rush! We would love to have you return this booklet to your teacher in about two weeks. Thank you and have fun!
School Subjects
Circle the smiley face that shows best how you feel about each of the subjects listed below:

Art  ☺ ☺ ☺ ☺ ☺
Geography ☺ ☺ ☺ ☺ ☺
Gym  ☺ ☺ ☺ ☺ ☺
Math  ☺ ☺ ☺ ☺ ☺
Music ☺ ☺ ☺ ☺ ☺
Reading ☺ ☺ ☺ ☺ ☺
Science ☺ ☺ ☺ ☺ ☺
Social Studies ☺ ☺ ☺ ☺ ☺
Writing ☺ ☺ ☺ ☺ ☺

Interests
Use numbers to rank the areas below. Put a 1 next to your favorite activity, a 2 next to your second favorite, etc.

1. Acting
2. Arts & Crafts
3. Cartooning
4. Creative Writing
5. Community Service
6. Dancing
7. Geography
8. History
9. Music
10. Science Experiments
11. Technology/Computers
Other ___________________

Here are some topics that I would love to learn more about:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
### Learning Style

People like to learn in very different ways. Some people like to read to find out new information. Some people like to put things together to figure it out. Think about how you like to learn new material; do you like it when people tell you something? Do you like to watch someone do something first? Use numbers to rank the areas below. Put a 1 next to the way you like to learn best, a 2 next to the way you like to learn second best, etc.

<table>
<thead>
<tr>
<th>Computer Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimenting (trial and error)</td>
</tr>
<tr>
<td>Listen to a speaker</td>
</tr>
<tr>
<td>Listen to a CD or tape</td>
</tr>
<tr>
<td>Learning Games</td>
</tr>
<tr>
<td>Putting things together</td>
</tr>
<tr>
<td>Reading</td>
</tr>
<tr>
<td>Watching other people</td>
</tr>
<tr>
<td>Watching videos</td>
</tr>
</tbody>
</table>

### Sharing Style

After learning something new, it is wonderful to be able to share it with other people. What ways do you like to share new information? Circle the smiley face that shows best how you feel when you are asked to share in the following ways:

- Act or role play
- Create a display or model
- Draw a picture or a diagram
- Explain or discuss
- Take a test
- Do a worksheet
- Write a report
- Any other ideas for sharing?

### Short term goal:

During the next year I would like to:
**Environment** (some like it hot, some like it cold!) How do you like the room when you are trying to learn something? Make a mark on the line below where you like it best.

<table>
<thead>
<tr>
<th>Very Quiet</th>
<th>Mostly Quiet</th>
<th>A little noise is OK</th>
<th>Quite a bit of noise is OK</th>
<th>Very Noisy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dark</th>
<th>Dim</th>
<th>Light but not too bright</th>
<th>Nice and light</th>
<th>Very Bright</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cold</th>
<th>Cool</th>
<th>Mild</th>
<th>Warm</th>
<th>Hot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Working with others:** Some people like to work alone, some people like to work with others. How about you? Circle the smiley face that best describes you.

- I like to work alone.
- I like to work with one other child.
- I like to work with an adult.
- I like to work with a small group.
- I like to work with a whole class.

These are the activities I do and lessons I take outside of school:  

When I have free time at home, this is what I like to do:
Special family activities and experiences are:

During your daydreaming time, what do you imagine you will be when you grow up? Draw a picture of it in the cloud!
All About Me
A Talen Portfolio

Name
Age
Grade
Date

For Parents to fill out with their child.
My Life Outside of School

Hobbies And Collections

Activities, Clubs and Lessons I Do Outside of School
Include how long you have been involved in each.

Projects I Do At Home
My Life Outside of School

My Favorites

Book ____________________________
Magazine _________________________
Movie ____________________________
Music Group _______________________

Other things you might like to know about me.

Family Activities, Travel, or Special Experiences

__________________________________________
__________________________________________
__________________________________________
__________________________________________
# My Best Ways of Learning

<table>
<thead>
<tr>
<th>When learning new information at school I like to:</th>
<th>When showing what I’ve learned I like to:</th>
<th>I learn best...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have the teacher lecture.</td>
<td>Write.</td>
<td>When it’s quiet.</td>
</tr>
<tr>
<td>Discuss topics with a group.</td>
<td>Use art.</td>
<td>When there is some noise.</td>
</tr>
<tr>
<td>Work on topics of my choice by myself.</td>
<td>Talk about my learning.</td>
<td>When there is bright light.</td>
</tr>
<tr>
<td>Learn information by watching a video or a film.</td>
<td>Act it out or make a video.</td>
<td>When the room has soft lighting.</td>
</tr>
<tr>
<td>Work on group projects.</td>
<td>Build a display or make a game.</td>
<td>Early in the day.</td>
</tr>
<tr>
<td>Learn by using the computer.</td>
<td>Do a project on the computer.</td>
<td>After I’ve been awake a few hours.</td>
</tr>
<tr>
<td>Talk with a person who is an expert on the topic.</td>
<td>Take tests.</td>
<td>In the afternoon.</td>
</tr>
<tr>
<td>Work with another student who already knows the information.</td>
<td>Other.</td>
<td>At night.</td>
</tr>
<tr>
<td></td>
<td>Rank your top 4 choices with 1 being your best way to show what you’ve learned.</td>
<td>When I have music playing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If I can snack while I work.</td>
</tr>
</tbody>
</table>

**Comments**

Check the sections that tell about your best ways of learning.
Mi portafolio sobre
Mis Talentos

Nombre
Edad
Grado
Fecha
### Mis Intereses

<table>
<thead>
<tr>
<th>Escritura Creativa</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deportes</td>
<td></td>
</tr>
<tr>
<td>Invenciones</td>
<td></td>
</tr>
<tr>
<td>Experimentos</td>
<td></td>
</tr>
<tr>
<td>Teatro</td>
<td></td>
</tr>
<tr>
<td>Fotografía</td>
<td></td>
</tr>
<tr>
<td>Filmar películas</td>
<td></td>
</tr>
<tr>
<td>Videos</td>
<td></td>
</tr>
<tr>
<td>Juegos</td>
<td></td>
</tr>
<tr>
<td>Estudio de la Naturaleza</td>
<td></td>
</tr>
<tr>
<td>Otros intereses</td>
<td></td>
</tr>
</tbody>
</table>

Numera éstas actividades del # 1 al 4, de acuerdo a tú interés dándole el # 1 al que te interesa más.

**Mis Metas:**

- **Metas sobre el Aprendizaje:** (lo que quiero aprender, ahora)

- **Las metas para mi vida:**

**Commentarios adicionales:**

---

*Emilia Alonso Vazquez*
For middle and high school students:

Total Talent Portfolio

Name ______________________________ Date ____________________

Age ______

Me Overall

* I am proudest about

____________________________________________________________________

____________________________________________________________________

When I meet new people, one thing I would like them to know about me is

____________________________________________________________________

When I start with a new teacher, one thing I would like them to know about me is

____________________________________________________________________
### Abilities

#### School Based

List the subjects/activities that you feel you are good at or enjoy doing in school and explain why you feel this way.

<table>
<thead>
<tr>
<th>School subject/activity</th>
<th>Why I feel this way</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Style Preferences

* I best learn by ________________________________
  because _______________________________________________________________________
* I best pass on or reveal my knowledge and understanding of materials by
  __________________________________________
  because _______________________________________________________________________
* It improves my learning in my classes when I and/or my teacher
  ____________________________________________________________________________
Curriculum Compacting and Differentiation

Modifying the curriculum for advanced learners...
Definition: Modifying or “streamlining the regular curriculum in order to eliminate repetition of previously mastered material, upgrade the challenge level of the regular curriculum, and provide time for appropriate enrichment and/or acceleration activities while ensuring mastery of basic skills.

Target Audiences:

1. All Talent Pool students (according to Individual Strength Areas), especially when involved in a Type III activity
2. Any non-Talent Pool student who has previously mastered portions of the regular curriculum or who is capable of mastering such materials at an accelerated pace.
Objectives:
1. To create a challenging learning environment within the context of the regular classroom.
2. To guarantee proficiency in basic curriculum.
3. To “buy” time for enrichment and acceleration.

Key Concepts:
1. Modification of the regular curriculum through an assessment of student strengths.
2. Elimination of acceleration of skills activities in strength areas following assessment.
3. Systematic planning of enrichment and/or acceleration activities to replace skills students have already mastered or can master at an faster pace.
### Two Kinds of Curriculum Compacting

**Basic Skill Compacting**

Spelling, Mathematics, or Language Arts Basic Skills

Easy to implement because pretesting is less difficult and mastery can be efficiently documented.

- Does the student already know the skills being covered in the classroom?
- Can proficiency be documented?
- Can certain skills be eliminated?
- Will the student be allowed (and encouraged) to master basic skills at his/her own pace?
- If skills can be mastered at a pace commensurate with a student's ability, will the student be able to help determine what he/she will do in the time earned by displaying mastery?
Two Kinds of Curriculum Compacting

Content Compacting

Social Studies, Science, and Literature

Students may already know the objectives or may be able to read the material and master the objectives in a fraction of the time.

• If the student already knows the content, will he/she have an opportunity to display competency of the subject or topic?
• If students do not already know the content but have the ability to master the material at their own pace, will they be given that opportunity?
• If content mastery can be demonstrated, will the student have the opportunity to select the work that will be substituted?
### INDIVIDUAL EDUCATIONAL PROGRAMMING GUIDE

#### The Compactor

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGE</th>
<th>TEACHER(S)</th>
<th>Individual Conference Dates And Persons Participating in Planning Of IEP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>GRADE</th>
<th>PARENT(S)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING
Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.

#### PROCEDURES FOR COMPACTING BASIC MATERIAL
Describe activities that will be used to guarantee proficiency in basic curricular areas.

#### ACCELERATION AND/OR ENRICHMENT ACTIVITIES
Describe activities that will be used to provide advanced level learning experiences in each area of the regular curriculum.

### Name it.  Prove it.  Change it.

<table>
<thead>
<tr>
<th>What material needs to be covered?</th>
<th>Exactly what material is to be excluded?</th>
<th>What enrichment and/or acceleration activities will be included?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Independent Study     Acceleration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mini-courses          Honors Courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>College Courses       Mentorships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small Group Investigations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work Study</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What evidence shows a need for compacting?</th>
<th>How will you prove mastery?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Check here if additional information is recorded on the reverse side.]
Eight Steps of Compacting

- Select learning objectives
- Create/locate appropriate preassessment
- Identify students who may have mastered objectives
- Pretest/preassess
- Streamline instruction
- Provide instructional options
- Organize enrichment/acceleration options
- Keep records
Enrichment Learning and Teaching

Using the Enrichment Triad to develop giftedness...
TYPE I*  
GENERAL EXPLORATORY ACTIVITIES

TYPE II  
GROUP TRAINING ACTIVITIES

TYPE III  
INDIVIDUAL & SMALL GROUP INVESTIGATIONS OF REAL PROBLEMS

Regular Classroom  
Environment in General
TYPE I
GENERAL EXPLORATORY ACTIVITIES
### Type I Planning and Documentation Form

Check all that apply:

<table>
<thead>
<tr>
<th>General Matrix</th>
<th>Grade Level</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 10</td>
<td>Social Studies</td>
<td></td>
</tr>
</tbody>
</table>

Methods of Delivery

<table>
<thead>
<tr>
<th>I. Resource Persons</th>
<th>Content Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Economics</td>
</tr>
<tr>
<td>Speakers</td>
<td>1</td>
</tr>
<tr>
<td>Enrichment Clusters</td>
<td></td>
</tr>
<tr>
<td>Demonstrations</td>
<td></td>
</tr>
<tr>
<td>Artistic Performances</td>
<td></td>
</tr>
<tr>
<td>Panel Discussion/Debate</td>
<td></td>
</tr>
<tr>
<td>E-Mail</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. Media</th>
<th>Content Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Films</td>
<td>1</td>
</tr>
<tr>
<td>Filmstrips</td>
<td></td>
</tr>
<tr>
<td>Slides</td>
<td></td>
</tr>
<tr>
<td>Audio Tapes/CDs</td>
<td></td>
</tr>
<tr>
<td>Videotapes</td>
<td></td>
</tr>
<tr>
<td>Television Programs</td>
<td></td>
</tr>
<tr>
<td>Newspaper/Magazine Articles</td>
<td></td>
</tr>
<tr>
<td>Computer Programs</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Other Resources</th>
<th>Content Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Development Centers</td>
<td>1</td>
</tr>
<tr>
<td>Displays</td>
<td></td>
</tr>
<tr>
<td>Field Trips</td>
<td></td>
</tr>
<tr>
<td>Museum Programs</td>
<td></td>
</tr>
<tr>
<td>Learning Centers</td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 6 10 7 5 28

Figure 34. Type I planning and documentation form (sample).
Type I: Debriefing

*What did you find interesting about the presentation?
*Did this presentation raise any questions in your mind?
*What else would you like to know?
  *Where could we find more information about this topic?
*Are there any careers that this presentation makes you think of?
*What good ideas can you share about projects, research studies, creative writing, etc. that this might be used to learn more about this topic?
*Would anyone like to meet with me individually to explore possible follow ups to this Type I?
TYPE II
GROUP TRAINING ACTIVITIES
## TAXONOMY OF COGNITIVE AND AFFECTIVE PROCESSES
(The "Type II Matrix" JSR: 2001)

### I. Cognitive Thinking Skills
- **K-3 4-8 9-12**
  - A. Creative Thinking Skills
  - B. Creative Problem-Solving & Decision-Making
  - C. Critical and Logical Thinking

### II. Character Development and Affective Process Skills
- **K-3 4-8 9-12**
  - A. Character Development
  - B. Interpersonal Skills
  - C. Intrapersonal Skills

### III. Learning How-To Learn Skills
- **K-3 4-8 9-12**
  - A. Listening, Observing, and Perceiving
  - B. Reading, Notetaking, and Outlining
  - C. Interviewing and Surveying
  - D. Analyzing and Organizing Data

### IV. Using Advanced Research Skills & Reference Materials
- **K-3 4-8 9-12**
  - A. Preparing for Research and Investigative Projects
  - B. Library and Electronic Reference
  - C. Finding and Using Community Resources

### V. Written, Oral, and Visual Communication Skills
- **K-3 4-8 9-12**
  - A. Written Communication Skills
  - B. Oral Communication Skills
  - C. Visual Communication Skills
## Type II Thinking Skills Taxonomy

### CRITICAL AND LOGICAL THINKING SKILLS

<table>
<thead>
<tr>
<th>Conditional Reasoning</th>
<th>Analogies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambiguity</td>
<td>Inferences</td>
</tr>
<tr>
<td>Fallacies</td>
<td>Inductive Reasoning</td>
</tr>
<tr>
<td>Emotive Words</td>
<td>Deductive Reasoning</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>Syllogisms</td>
</tr>
<tr>
<td>Categorical Propositions</td>
<td>Probability</td>
</tr>
<tr>
<td>Classification</td>
<td>Dilemmas</td>
</tr>
<tr>
<td>Validity Testing</td>
<td>Paradoxes</td>
</tr>
<tr>
<td>Reliability Testing</td>
<td>Analysis of:</td>
</tr>
<tr>
<td>Translation</td>
<td>- Content</td>
</tr>
<tr>
<td>Interpretation</td>
<td>- Elements</td>
</tr>
<tr>
<td>Extrapolation</td>
<td>- Trends and Patterns</td>
</tr>
<tr>
<td>Patterning</td>
<td>- Relationships</td>
</tr>
<tr>
<td>Sequencing</td>
<td>- Organizing Principles</td>
</tr>
<tr>
<td>Flow Charting</td>
<td>- Propaganda and Bias</td>
</tr>
<tr>
<td></td>
<td>- Computer Programming</td>
</tr>
</tbody>
</table>
### Planning Matrix for Organizing and Teaching Type II Skills With Commercial Enrichment Materials

I. Cognitive Training

<table>
<thead>
<tr>
<th></th>
<th>K-3</th>
<th>4-8</th>
<th>9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Creative Thinking Skills</strong></td>
<td>Be An Inventor</td>
<td>Be An Inventor</td>
<td>Brainstorming: The Book of Topics</td>
</tr>
<tr>
<td></td>
<td>Brainstorming: The Book of Topics</td>
<td>Challenge Boxes</td>
<td>Challenge Boxes</td>
</tr>
<tr>
<td></td>
<td>Creativity 1, 2, 3</td>
<td>Creativity 1, 2, 3</td>
<td>On The Nose</td>
</tr>
<tr>
<td></td>
<td>New Directions in Creativity: A</td>
<td>Imagining</td>
<td>Steve Caney's Invention Book</td>
</tr>
<tr>
<td></td>
<td>New Directions in Creativity: B</td>
<td>New Directions in Creativity: Mark 1</td>
<td>Steve Caney's Kids' America</td>
</tr>
<tr>
<td></td>
<td>On The Nose</td>
<td>New Directions in Creativity: Mark 2</td>
<td>Steve Caney's Play Book</td>
</tr>
<tr>
<td></td>
<td>Steven Caney's Kids' America</td>
<td>New Directions in Creativity: Mark 3</td>
<td>Steve Caney's Toy Book</td>
</tr>
<tr>
<td></td>
<td>Steven Caney's Play Book</td>
<td>On The Nose</td>
<td>Think About It!</td>
</tr>
<tr>
<td></td>
<td>Steven Caney's Toy Book</td>
<td>Steve Caney's Invention Book</td>
<td>Untrapping Your Inventiveness</td>
</tr>
<tr>
<td></td>
<td>Think About It!</td>
<td>Steve Caney's Kids' America</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wondering</td>
<td>Steve Caney's Play Book</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steve Caney's Toy Book</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Think About It!</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Untrapping Your Inventiveness</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>B. Creative Problem Solving and Decision Making</strong></th>
<th>Be An Inventor</th>
<th>Be An Inventor</th>
<th>Challenge Boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Creativity 1, 2, 3</td>
<td>Creativity 1, 2, 3</td>
<td>Gee, Whiz!</td>
</tr>
<tr>
<td></td>
<td>On The Nose</td>
<td>Imagining</td>
<td>On the Nose</td>
</tr>
<tr>
<td></td>
<td>Think About It!</td>
<td>On the Nose</td>
<td>Steve Caney's Invention Book</td>
</tr>
<tr>
<td></td>
<td>Wondering</td>
<td>Steve Caney's Invention Book</td>
<td>Think About It!</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steve Caney's Play Book</td>
<td>Untrapping Your Inventiveness</td>
</tr>
</tbody>
</table>

*All the books listed in Figure 60 are available from Creative Learning Press, Inc., P.O. Box 320, Mansfield Center, CT 06250.*

Planning matrix for organizing and teaching type II skills with commercial enrichment materials.
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

Relationships

1. How do these terms go together?
2. Why do they belong together?
3. Is there a name we can give to the relationship?
4. Is there anything that does not belong?
5. How are things alike?
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

Clarity

1. Is it clear?
2. What does it tell someone?
3. What makes it clear to someone else?
Consistency with Evidence

1. How is the statement supported by observations?
2. How is the statement supported by the observations of others?
3. How is the statement supported by data?
4. How does evidence from nature support the statement?
5. How well does your statement reflect the data?
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

Use of Examples

1. Can you give an example?

2. Why is it a good example for this purpose?

3. Is there a better example for this purpose?

4. Can you think of an original example?
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

Making Sense

1. Is this what you expected?
2. Are there any surprises here?
3. Is there anything that does not fit?
4. Does your hypothesis make sense, given what you know?
5. Can you predict what will be the outcome?
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

**Acknowledge Alternative Explanations**

1. How else can this be explained?
2. Is your explanation or hypothesis plausible? Can it happen?
3. What does this explanation say that the other doesn’t?
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

Elaboration of a Theme

1. How is this term related to something we did before?
2. Is it familiar? If so, how?
3. How is it related to anything you did in another class?
Questions That Can Be Used To Escalate the Level of Discussions About Concepts and Ideas

Accuracy

1. Is the statement consistent with other information on the same topic?

2. How does your model compare with other models?

3. How does it compare with other representations?

4 Fun with Figures (a)

See how many different ways you can combine the above two figures to produce a new figure. Three examples should help you think of other combinations. Use the back of the page if you need more space.
CRITICAL THINKING
ACTIVITIES
FOR
MATHEMATICS
BOOK 3

1. ( )
2. [ ]
3. raise to a power
4. × or ÷ or /; these have equal rank—move from left to right
5. + or −; these have equal rank—move from left to right

95. \(2 \times 32 - [35 - 4 \times (2 + 5)]\)

ANITA HARNADEK

CRITICAL THINKING PRESS & SOFTWARE

Harnadek, A.
Mathematics
HAR
Learning from the Lives of Amazing People

By Janice Gudeman

Illustrated by Kathryn Hyndman
What Do You Stand For?
A Kid's Guide to Building Character

Barbara A. Lewis
The KnF's Guide to Social Action
Barbara A. Lewis

How to solve the social problems you choose, and turn creative thinking into positive action.
TYPE III
INDIVIDUAL & SMALL GROUP INVESTIGATIONS OF REAL PROBLEMS
Investigating real problems...

The young person thinking, feeling, and doing like the practicing professional...

“We don’t expect little children to do great things, but we expect them to do little things in a great way... even if at a more junior level than adult scientists, writers, filmmakers, etc.”
What makes a problem real?

What makes a Type III qualitatively different from a typical school assignment?

1. Personalization of the problem

2. Use of authentic methodology

3. Developed to have an impact on a real audience (other than or in addition to the teacher)
A guide for Facilitating a Type III
# MANAGEMENT PLAN
FOR INDIVIDUAL AND SMALL GROUP INVESTIGATION

<table>
<thead>
<tr>
<th>NAME(S)</th>
<th>GRADE</th>
<th>Beginning Date</th>
<th>Estimated Ending Date</th>
</tr>
</thead>
</table>

What idea do you plan to investigate? Why?

What form(s) will the final product take?

List some possible intended audiences:
(Name and addresses of contact persons in organized groups on local, state or national level)

How will you communicate the results of your investigation to an appropriate audience?

Getting Started: What types of information or data will be needed to begin your project?

Where can you find that information?

How-to-do-it books/written materials: Use bibliography format.

---

Super Hint Number 1 for getting more authentic Type IIIs...

Think Data...

Think Instruments!
Antibacterial soaps are no better than regular soap. Experts have said so for years. But that hasn’t stopped millions of Americans from snapping up the supposedly superior germ killers. A 1997 government report revealed that fears that antibacterial soaps would become overprescribed—that they would be used instead of ordinary soap to wash hands—were justified, and that the fear was real. The researchers had found that antibacterial soaps were no more effective than ordinary soap in removing germs from the hands. The study also showed that antibacterial soaps did not prevent the spread of germs to others. The researchers concluded that antibacterial soaps should not be used instead of ordinary soap. However, some experts believe that antibacterial soaps can be effective if used properly. They recommend that antibacterial soaps be used for patients with special needs, such as those who are immunocompromised or have other health conditions. They also recommend that antibacterial soaps be used in hospitals and other settings where there is a high risk of transmission of germs.
<table>
<thead>
<tr>
<th>Data-Gathering Instrument and Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview</td>
</tr>
<tr>
<td>Water Test Kit</td>
</tr>
<tr>
<td>Sextant</td>
</tr>
<tr>
<td>Questionnaire</td>
</tr>
<tr>
<td>Oxygen Analyzer</td>
</tr>
<tr>
<td>Thermometer</td>
</tr>
<tr>
<td>Rating Scale</td>
</tr>
<tr>
<td>Colorimeter</td>
</tr>
<tr>
<td>Anemometer</td>
</tr>
<tr>
<td>Rank Order Instrument</td>
</tr>
<tr>
<td>Air Flow Indicator</td>
</tr>
<tr>
<td>Hydrometer</td>
</tr>
<tr>
<td>Observation Record</td>
</tr>
<tr>
<td>Magnifier</td>
</tr>
<tr>
<td>Barometer</td>
</tr>
<tr>
<td>Sociometric Device</td>
</tr>
<tr>
<td>Microscope</td>
</tr>
<tr>
<td>Audiometer</td>
</tr>
<tr>
<td>Q/Sort</td>
</tr>
<tr>
<td>Telescope</td>
</tr>
<tr>
<td>Eye Chart</td>
</tr>
<tr>
<td>Test</td>
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<tr>
<td>Litmus Paper/pH Meter</td>
</tr>
<tr>
<td>Blood Pressure Monitor</td>
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<td>Salt Analyzer</td>
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<td>Color Blindness Test</td>
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<td>Conductivity Meter</td>
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<td>Ruler</td>
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<td>Pedometer</td>
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<td>Metal Detector</td>
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<tr>
<td>Tape Measure</td>
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<tr>
<td>Physiograph</td>
</tr>
<tr>
<td>Dissecting Kit</td>
</tr>
<tr>
<td>Volt Meter</td>
</tr>
<tr>
<td>Maze</td>
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<tr>
<td>Microtome</td>
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<td>Amp Meter</td>
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<td>Camera</td>
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<td>Radiation Detector</td>
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<td>Ohm Meter</td>
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<tr>
<td>Tape Recorder</td>
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<td>Solar Cell</td>
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<td>Light Meter</td>
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<td>Video Recorder</td>
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<td>Micrometer</td>
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<td>Sound Meter</td>
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<tr>
<td>Excavation Tool</td>
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<tr>
<td>Biofeedback Monitor</td>
</tr>
<tr>
<td>Spectroscope</td>
</tr>
<tr>
<td>Respiratory Flow Meter</td>
</tr>
<tr>
<td>Oscilloscope</td>
</tr>
</tbody>
</table>
Super Hint Number 2 for getting more authentic Type IIIs...

Learn all you can about *How-To Books* in the areas of your student’s interests.
Choosing a Subject and Finding Information About It

The beginner, with or without aid, can easily discover a subject that interests him and that will be worthy of investigation—at least at an introductory level. He needs only to ask himself four sets of questions:

1. The first set of questions is geographical. They center around the interrogative: “Where?” What area of the world do I wish to investigate? The Far East? Brazil? My country? My city? My neighborhood?


3. The third set of questions is chronological. They center around the interrogative: “When?” What period of the past do I wish to study? From the beginnings till now? The fifth century B. C.? The Middle Ages? The 1780’s? Last year?


Understanding History: A Primer of Historical Method (Gottschalk, 1969)
New!

HISTORY DOCUMENTARIES
A step-by-step guide to video editing in the classroom
by Deborah Escobio

ARCHAEOLOGY FOR KIDS
Uncovering the Mysteries of Our Past
25 Activities
Richard Panek

MY BACKYARD HISTORY BOOK
David Weitzman

The Oral History Manual
BARBARA W. SOMMER AND MARY KAY QUINLAN

WRITING FAMILY HISTORIES AND MEMOIRS
Kirk Polking
Super Hint Number 3 for getting more authentic Type IIIIs...

Help students explore the full range of product options.

Decorate the school environment with numerous types of products from various disciplines.
**Instructional Products**

**Concrete Products:** Physical constructions young people create as they investigate the representative topics and interact with the principles, concepts and methodology of the discipline.

- **Artistic Products**
  - Architecture
  - Murals
  - Sculpture
  - Maps
  - Graphic Designs

- **Performance Products**
  - Skits
  - Role playing
  - Dance
  - Mime
  - Interpretive Song

- **Spoken Products**
  - Debates
  - Speeches
  - Demonstrations
  - Panel Discussions
  - Book Talks

- **Visual Products**
  - Videos
  - Musical Scores
  - Blueprints
  - Diagrams/Charts
  - Timelines
Super Hints Number 4, 5, and 6

Action...

Action...

Action!
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did every student do it?</td>
<td>_____</td>
<td>X</td>
</tr>
<tr>
<td>2. Should every student do it?</td>
<td>_____</td>
<td>X</td>
</tr>
<tr>
<td>3. Would every student <em>want</em> to do it?</td>
<td>_____</td>
<td>X</td>
</tr>
<tr>
<td>4. Could every student do it?</td>
<td>_____</td>
<td>X</td>
</tr>
<tr>
<td>5. Did the student do it willingly and zestfully?</td>
<td>X</td>
<td>_____</td>
</tr>
<tr>
<td>6. Did the student use authentic resources and methodology?</td>
<td>X</td>
<td>_____</td>
</tr>
<tr>
<td>7. Was it done for an audience other than (or in addition to) the teacher?</td>
<td>X</td>
<td>_____</td>
</tr>
</tbody>
</table>