



How TO DESIGN GOLD SEAL LESSONS



International Center for Leadership in Education
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This design manual is a companion to *Using Gold Seal Lessons to Improve Instruction*, which contains 360 lessons in English language arts, mathematics and science for grades K-4, 5-8 and 9-12.

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Contents



Preface	v
I. Overview	1
Introduction	
What are Gold Seal Lessons?	
What is Special about Gold Seal Lessons?	
Using this Manual	
II. Background and History	5
About the International Center for Leadership in Education	
Historical Development of Gold Seal Lessons	
Developing Another Type of Assessment	
What was Learned from Performance Assessments	
Developing Uniform Standards	
Increased Emphasis on Testing	
The Birth of Gold Seal Lessons	
III. Description of a Gold Seal Lesson	13
Earth Friendly Lunch - Gold Seal Lesson	
IV. The Design Process	17
Using the Materials and Resources in this Manual	
Creating a Gold Seal Lesson	
V. Essential Skills	21
Why the Essential Skills Survey was Created	
Compiling and Conducting the Curriculum Survey of Essential Skills	
What the Rankings Show	
How to Use Essential Skills in Designing Gold Seal Lessons	
Other Uses for the Essential Skills	
How the Curriculum Matrix Works	
VI. Scoring Guides	27
Nomenclature	
Holistic Scoring Guides	
Analytic Scoring Guides	
Checklist Scoring Guides	
Reviewing Scoring Guides	
Choosing and Using Scoring Guides	
Scoring Guide Exercises	
VII. Rigor/Relevance Framework	43
The Knowledge Taxonomy	
The Application Model	
Description of the Four Quadrants	
Learning to Use the Rigor/Relevance Framework	
Exercise Using the Rigor/Relevance Framework	

VIII. Staff Development	53
Organization	
Start-up Session	
Follow-up Sessions	
Suggestions for Gold Seal Lesson Tasks	
Rigor/Relevance Framework Exercise	
IX. Using the Electronic Disk	65
Templates	
Data Files	
Appendix A — Gold Seal Lessons	71
Appendix B — Gold Seal Lesson Design Template	117
Appendix C — Instructional Focus Statements	121
Appendix D — Essential Skills	125



Contents of the Electronic Disk



- Gold Seal Lesson Design Template
- Scoring Guide Templates
 - Holistic
 - Analytic-Basic Version
 - Analytic-Variation 1
 - Analytic-Variation 2
 - Analytic-Variation 3
 - Checklist-Variation 1
 - Checklist-Variation 2
 - Checklist-Variation 3
- Instructional Focus Statements
- Essential Skills
 - English Language Arts by Topic
 - English Language Arts by National Rank
 - Mathematics by Topic
 - Mathematics by National Rank
 - Science by Topic
 - Science by National Rank

Please see Section IX of the manual
for information on using the disk.
The CD is located inside the back cover.

Preface

The International Center for Leadership in Education is known for its basic mission:

Make education rigorous and relevant
for all students.

Since 1991, we have shared our passion for raising student achievement by helping many states and hundreds of districts and schools to revise their curricula, assessments, standards and instructional practices to better prepare students for all of their post-school roles. To achieve rigor and relevance for all, schools must do things differently than they have in the past.

Increasing rigor for all students means using new approaches and methods to reach those students who are not doing well in school. Relevance means teaching students to apply what they are learning to real-world situations. Understanding how to use one's knowledge is important for every student, including those who typically perform at high levels of rigor.

For educators, knowing what is most important for students to learn in school has become a critical issue in recent years. Although the standards movement was intended to bring focus and direction to education, in many states it led instead to a proliferation of content. The U.S. curriculum was described as a mile wide and an inch deep by the Third International Mathematics and Science Study (TIMSS). This curriculum overload can be seen in research by the Mid-Continent Regional Educational Laboratory (McREL). The researchers examined standards across all subjects and grade levels and identified 200 distinct standards with 3,093 related benchmarks. From teachers' estimates of how long it would take to teach each benchmark adequately, the researchers calculated that it would require 15,465 hours to cover all of them. Yet, students have only 9,042 hours of instructional time over the course of their K-12 careers.

Schools need to address the problem of the overcrowded curriculum. To do this, they need good data that answers the questions: (1) What do graduates need to know and be able to do to be successful in their post-school experiences? and (2) What do students need to know to pass the state-mandated tests?

In search of the answers to these questions, the International Center conducted two data-gathering projects. The first was the Curriculum Survey of Essential Skills, initiated in 1999 to identify the skills and knowledge graduates need for success in adult life. The survey asked respondents to identify the top 35 topics from a list of content topics commonly found in states' exit standards. The survey instrument and the ranking of the topics are included here in Appendix D.

Then, in 2000, we began our Curriculum Matrix initiative, which compares a state's standards in English, math and science to selected tests and to the Curriculum Survey rankings. The Curriculum Matrix rates each standard as high, medium or low priority based on its importance on the tests and in the Survey. Using this data, the next step is to design instructional materials around the highly rated standards/benchmarks.

How to Design Gold Seal Lessons will help you create lessons that are rigorous and relevant and that focus on the knowledge and skills which are most critical for students to learn. There is no magic formula for increasing rigor and relevance. Schools need successful models to emulate and quality materials that reflect the critical skills students require for future success.

We believe Gold Seal Lessons can improve teaching and learning. We hope you find this design manual helpful.



Willard R. Daggett, Ed.D.
President
International Center for
Leadership in Education



I. Overview

Introduction

The purpose of this manual is to provide educators with assistance in developing lessons that help students achieve success in meeting education standards. The most critical standards are those that are assessed by high-stakes tests and those that are considered most useful to graduates in their post-school lives. The latter are known as Essential Skills.

The manual includes instructions on how to write Gold Seal Lessons plus materials for staff development programs, lists of Essential Skills, a collection of scoring guides and sample Gold Seal Lessons.

What are Gold Seal Lessons?

Gold Seal Lessons are tasks or activities that are strategically designed to teach to specific academic standards/performance indicators/objectives/benchmarks. It is these standards that are assessed by high-stakes state and national tests, which are then used to evaluate individual student, school and district educational effectiveness.

Each Gold Seal Lesson is centered about a highly motivating theme, activity or project. The lessons are almost always multidisciplinary and deal with real-world situations or problems. Each lesson includes a scoring guide to assess learning progress.

In this manual, the term “standards” encompasses all the subcategories of statements in state standards documents, variously referred to as objectives, benchmarks, performance indicators, etc.

A lesson may take as little time as a class period or as much as a year to complete. The task may run concurrently with other class activities, or it may be the exclusive activity for a period of time. Students sometimes work individually, but most frequently they accomplish the task in a small work group.

Gold Seal Lessons require students to learn and perform in a number of different ways. The student may research, write, compute, model, demonstrate, build, survey or report in a variety of academic, technical, work and community environments.

How to Design Gold Seal Lessons

Working with Gold Seal Lessons requires the teacher to wear several hats, including instructor, curriculum specialist, coach, counselor, facilitator, manager and evaluator. The lesson may be directed by a single teacher or by a team of teachers within a grade level or across subject areas.

The International Center for Leadership in Education has been developing performance-based lessons since the mid-1990s. Over that time, revisions and improvements have been made to make the lessons more useful and effective. The title “Gold Seal Lesson” designates the most recent generation of these performance tasks. Currently, the International Center has a resource bank of more than 1000 Gold Seal Lessons

What is Special about Gold Seal Lessons?

Gold Seal Lessons teach standards and Essential Skills to specified levels of rigor and relevance. Rigor is achieved by explicitly stating the Essential Skills that the student is expected to acquire and determining the level of rigor required using Bloom’s Taxonomy (known here as the Knowledge Taxonomy). These skills are learned, practiced and assessed through relevant, real-world activities, as indicated by the level on the Application Model.

The Knowledge Taxonomy and Application Model form the Rigor/Relevance Framework.

Gold Seal Lessons:

- Ensure academic rigor and prepare students for success after school.
- Are keyed to state standards and prepare students for high-stakes testing.
- Provide a vehicle for bringing teachers from different subject areas and grade levels together to talk about common ideas for improving instruction.
- Are multidisciplinary and can point the way to effective collaboration among faculty members.
- Can be stockpiled by school, district, or even state in resource banks to provide a plentiful source of ideas for teaching state standards.
- Are fun and intellectually and professionally satisfying to design.

Using this Manual

This manual can be used by individuals who wish to develop Gold Seal Lessons on their own or by groups of educators working together with the guidance of a teacher-leader or consultant in a staff development or collaborative work setting.

This manual includes:

- Background information regarding the history and rationale for designing Gold Seal Lessons
- A detailed description of a Gold Seal Lesson and how the parts of a lesson are designed to work together for instruction and assessment purposes
- Step-by-step instructions and practical tips for developing Gold Seal Lessons
- Tools and templates to facilitate the design process, both in hard copy and on a disk.
- Activities and practice exercises to master designing the various sections of the Gold Seal Lesson and use of the tools
- Suggestions for developing and using Gold Seal Lessons
- A collection of Gold Seal Lessons as examples
- Lists of Essential Skills in science, math and English language arts
- Sample scoring guides.

Most class projects and teaching units that teachers have used successfully can be transformed into performance tasks.

VI. Scoring Guides

The secret to developing a good scoring guide, holistic or any other type, is the identification of the criteria or characteristics to be used in judging the quality of a student's work. In the Gold Seal Lesson's Performance Task, these criteria should be spelled out in describing what the student is required to do. The criteria also should be found in the list of Essential Skills.

It is a good idea not to use too many criteria; use only those that truly describe what the student's knowledge or work is like as a result of the lesson.

A holistic scoring guide works best when the teacher is experienced in the subject matter of the lesson and has developed a good understanding of what quality of work can be expected of students. Because there is more room for subjective judgment when using a holistic scoring guide, it can be more difficult to get agreement among a group of teachers as to what the different levels of performance look like. For this reason, efforts to achieve a high level of inter-rater reliability need to be made where lessons are used by groups of teachers. This typically involves group scoring through comparing and discussing student performances to achieve agreement among the teachers involved.

Some of the best work on achieving inter-rater reliability can be found in the methods used by teachers of writing.

There is no requirement that a holistic scoring guide include a certain number of performance levels or a certain number of criteria or characteristics at each level. However, in the interests of effective management of information, most developers have used from three to five levels and from three to seven criteria or characteristics.

There are several other Gold Seal Lessons in Appendix A that use holistic scoring guides. Look at them carefully to gain a good understanding of the patterns and wordings that go into designing effective holistic scoring guides.

- **Car Rental** - Math 9-12
- **Power Punch: A New Soft Drink** - Math 5-8
- **Airplane Design Challenge** - Science K-4
- **Stop: Yes or No?** - Science 9-12

Directions for using the electronic templates are given in Section IX.

How to Design Gold Seal Lessons

Analytic Scoring Guides

The analytic scoring guide is the form most frequently used for evaluating performance tasks. The term “analytic” implies that the scoring guide provides information regarding various aspects of the task. While a holistic scoring guide rates the whole task, the analytic scoring guide rates each of the important characteristics or criteria of the lesson separately.

One distinct advantage of the analytic scoring guide is that it is easier for groups of teachers to agree on scoring levels and evaluate student performance on a consistent and accurate basis. This increases the objectivity and reliability of the scoring process.

With an analytic scoring guide, the student’s performance on several characteristics and/or criteria can be described in a number of ways. One method is to use the paragraph format similar to that used in a holistic scoring guide for each characteristic.

An example of this basic type of analytical scoring guide can be found in the lesson: **Grammar–Eye Halve a Spelling Chequer** - English 5-8.

Analytic Scoring Guide Basic Version

Writing with Misused Words

4 Points = The writing is concise. It clearly and completely fulfills the requirements of the assignment. It is written with no spelling errors yet contains many misused words. The misused words are used correctly in a way that satisfies the assignment’s requirements and makes sense.

3 Points = The writing is concise. It fulfills the requirements of the assignment. It is written with no more than one spelling error yet contains many misused words. The misused words are used correctly in a way that satisfies the assignment’s requirements and makes sense.

2 Points = The writing is not concise. It does not fulfill the requirements of the assignment. It is written with many spelling errors and contains many misused words. The misused words are senseless to the assignment’s requirement and the writing makes no sense.

1 Point = The writing is confusing and lacks the basic concept of the assignment’s requirements. There are many spelling errors and the misused words are senseless to the meaning of the writing.

continued

Written Explanation of Spellchecker

4 Points = The written explanation is clear, concise and logical. It describes basic spellchecker features and its limitations. The student defends his/her position with many examples from the student's own writing sample. It is written in an understandable format with no mechanical errors.

3 Points = The written explanation is clear, concise, and logical. It describes some basic spellchecker features and its limitations. The student defends his/her position with some examples from the student's own writing sample. It is written in an understandable format with few mechanical errors.

2 Points = The written explanation lacks clarity, conciseness and logic. The information is incomplete and there are some mechanical and/or organizational errors.

1 Point = The written explanation is confusing and lacks basic information. There are many mechanical errors and problems with organization.

Reflection on Employers' Perceptions

4 Points = The writing or discussion is clear, concise, and logical. The student truly tries to place him/herself in the employer's role and perceive the resume from his/her position. There are no mechanical errors in the writing.

3 Points = The writing or discussion is clear, concise and logical. The student tries with moderate success to place him/herself in the employer's role and perceive the resume from his/her position. There are few mechanical errors.

2 Points = The writing or discussion lacks clarity, conciseness and logic. The student tries with little success to place him/herself in the employer's role and perceive the resume from his/her position. There are some mechanical errors.

1 Point = The writing or discussion is confusing and largely incomplete. There is no indication that the student attempted to place him/herself in the employer's role and perceive the resume from his/her position. There are many mechanical errors.

How to Design Gold Seal Lessons

The characteristics to be evaluated are the underlined statements in each of the three boxes. The score or point value is determined by the description that best fits the student's work. A student may score differently on each of the characteristics.

As can be observed, this form of analytic scoring guide, while zeroing in on particular characteristics of the lesson, can be cumbersome and time-consuming to design. Other variations still evaluate separate characteristics and/or criteria yet do so in a more concise manner.

Another version of an analytical scoring guide is illustrated by the Gold Seal Lesson, **Poe – Masque of the Red Death and AIDS** - English 9-12 (see Appendix A). The format of this scoring guide makes it relatively fast to design.

Analytic Scoring Guide Variation 1

Score each of the following characteristics on a scale of 4 to 0, where 4 = surpasses expectations; 3 = high quality performance; 2 = satisfactory performance; 1 = minimum quality performance; 0 = does not meet expectations.	
CHARACTERISTICS/CRITERIA	SCORE
Researches Bubonic Plague • Makes proper use of sources and technology available.	
Researches AIDS • Makes proper use of sources and technology available.	
Writes Comparison/Contrast Report on Two Epidemics • Includes information on the diseases and their effects. • Applies the rules and conventions of grammar, usage, punctuation, paragraphing, spelling • Presents information in well-organized fashion that will be clear to the target audience • Uses editing and revising skills to improve effectiveness and accuracy	
Writes Persuasive Argument to Context Cue • Defines a position on a topic and writes persuasively to persuade a specific audience • Applies the rules and conventions of grammar, usage, punctuation, paragraphing, spelling • Presents information in well-organized fashion that will be clear to the target audience • Uses editing and revising skills to improve effectiveness and accuracy	

VI. Scoring Guides

In this scoring guide, the important characteristics of the lesson are each scored separately. In addition, criteria that help define the characteristic are provided.

Other examples of this type of analytical scoring guide are the lessons:

- **Writing Study Guides** - English 5-8
- **The Gift of Literature** - English K-4. In this lesson, the designer encourages the user to make the determination as to which characteristics are most important and therefore carry the most weight in evaluating the student's work.
- **Area Codes** - Math 9-12.

In some lessons, each of the criteria is scored, not just the characteristics. A good example of this is **Soil Percolation** – Science 5-8.

Score each of the following criteria on a scale of 4 to 0, where 4 = surpasses expectations; 3 = high quality performance; 2 = satisfactory performance; 1 = minimum quality performance; 0 = does not meet expectations		
CHARACTERISTIC	CRITERIA	SCORE
Data Collection	Works well on a team	
	Conducts experimentation correctly and accurately	
	Data are shared with all members	
Technology Integration	Correctly formats the spreadsheet with all pertinent data	
	Accurately inputs all needed data	
	Generates appropriate graphs from the data collected	
Data Analysis	Identifies the soils which provide the best drainage	
	Supports conclusions with data	
Application	Identifies the best building soil based on the findings	
	Accurately defends the proposal	

**Analytic Scoring Guide
Variation 2**

How to Design Gold Seal Lessons

There are times when several characteristics or criteria are evaluated in the same way on several occasions. This is a common occurrence with science activities. A good example of this version of an analytical scoring guide can be found in **Graphing Motion** - Science 9-12.

Analytic Scoring Guide Variation 3

Rate the Criteria: 3 = Excellent, 2 = Satisfactory, 1 = Unsatisfactory, 0 = Does not attempt or does not understand					
CRITERIA	Experiment Score				
	1	2	3	4	5
Student demonstrates an understanding of acceleration and velocity					
Group work and experimental procedures					
Data table and graph neatly done and labeled correctly					
Answers reflected in the summary					
Summary write-up well written and free from spelling and grammatical errors					

Checklist Scoring Guides

As analytic scoring guides become more “streamlined” and easier to work with, they fall into the category of “checklists.” The checklist generally has a longer list of criteria to be judged than the holistic or analytic forms. However, the evaluator is often only required to check off the items that were completed satisfactorily. Or, more typically, each criterion is checked off at a high, medium or low (or similar) simple system of evaluation.