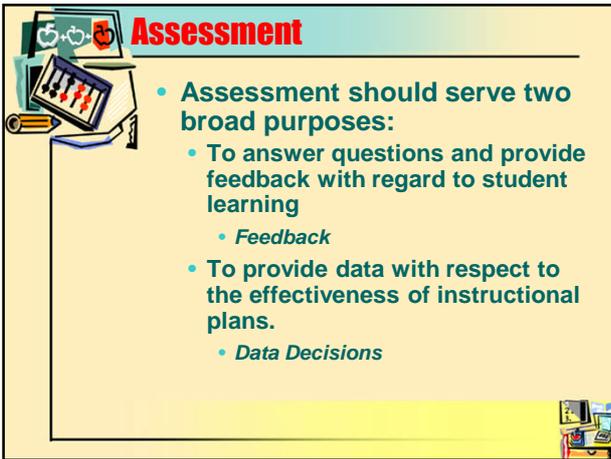


Lesson presentation format

- **Set the scene**
 - Kit title
 - Title of the lesson
 - Grade level
 - Where the lesson fits in the curriculum
 - What have they studied previously

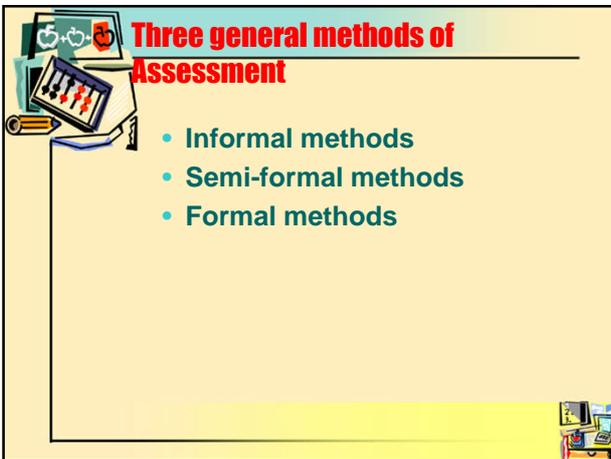
The slide features a yellow background with a light blue header. On the left, there is an illustration of a laptop displaying a bar chart, a pencil, and a paper. On the right, there is a small illustration of a desk with a computer monitor and keyboard. The text is in a dark blue font.



Assessment

- **Assessment should serve two broad purposes:**
 - To answer questions and provide feedback with regard to student learning
 - *Feedback*
 - To provide data with respect to the effectiveness of instructional plans.
 - *Data Decisions*

The slide features a yellow background with a light blue header. On the left, there is an illustration of a laptop displaying a bar chart, a pencil, and a paper. On the right, there is a small illustration of a desk with a computer monitor and keyboard. The text is in a dark blue font.



Three general methods of Assessment

- **Informal methods**
- **Semi-formal methods**
- **Formal methods**

The slide features a yellow background with a light blue header. On the left, there is an illustration of a laptop displaying a bar chart, a pencil, and a paper. On the right, there is a small illustration of a desk with a computer monitor and keyboard. The text is in a dark blue font.



Approaches

- **Traditional approach**
 - a post evaluation instrument (a quiz or test)
- **New Looks**
 - Performance
 - Portfolio





Informal Methods of Assessment

- Gives students feedback, and as a measure of the teacher's effectiveness.
- Involves the direct interaction of the teacher with the students
- Not always obvious from student nonverbal behavior (frowns, puzzled looks, shaking head)
- Involve students in small group activities, paying attention to their behavior, verbal as well as nonverbal





Monitoring Informal Assessment

- create an observation form
 - enables the teacher to watch student behavior during cooperative learning activities



Sample Observation Form

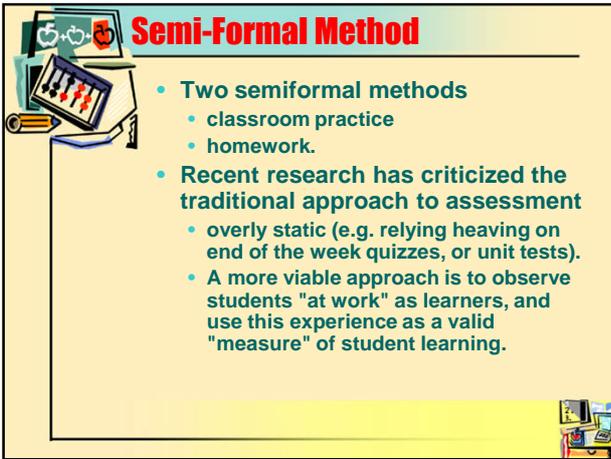
Interpersonal Skill	Group 1	Group 2	Group 3	Group 4
Active Listening
Staying on Task
Asking Questions
Contributing Ideas

Questioning

- One of the most powerful uses of classroom questions is when students are engaged in cooperative learning activities, and/or laboratory activities
- Use a variety of questions.
 - a balance between low order (recall) and high order (application, synthesis, evaluation) questions.
 - The use of higher order questions has been shown to be motivational, where as low order questioning is useful for a probing strategy.

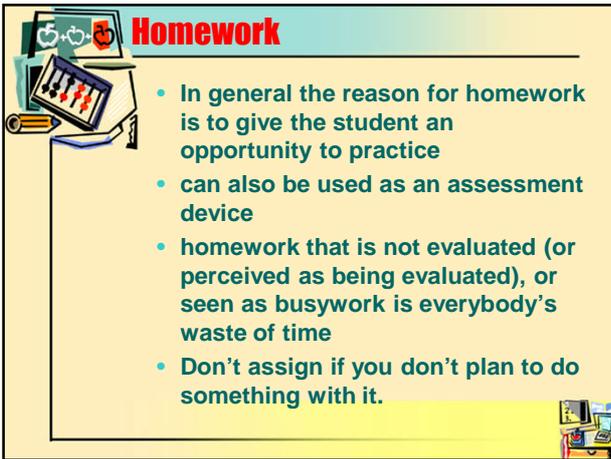
As you recall:

- Teacher must:
 - Ask many questions
 - Ask open ended questions
 - Be positive about student responses
 - Avoid outright rejection
 - Try to incorporate student responses

A slide titled "Semi-Formal Method" with a yellow background and a light blue header. The title is in red. On the left, there is an illustration of a laptop, a pencil, and a notepad. On the right, there is a small illustration of a desk with a computer monitor and keyboard. The slide contains a bulleted list of points.

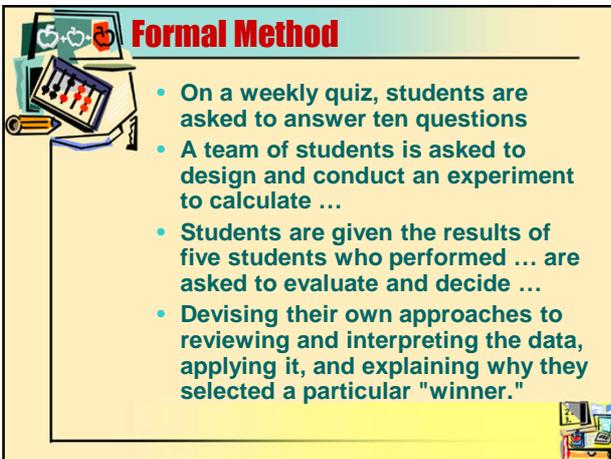
Semi-Formal Method

- Two semiformal methods
 - classroom practice
 - homework.
- Recent research has criticized the traditional approach to assessment
 - overly static (e.g. relying heavily on end of the week quizzes, or unit tests).
 - A more viable approach is to observe students "at work" as learners, and use this experience as a valid "measure" of student learning.

A slide titled "Homework" with a yellow background and a light blue header. The title is in red. On the left, there is an illustration of a laptop, a pencil, and a notepad. On the right, there is a small illustration of a desk with a computer monitor and keyboard. The slide contains a bulleted list of points.

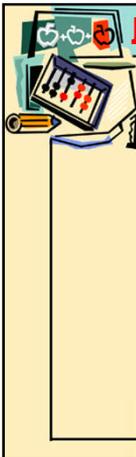
Homework

- In general the reason for homework is to give the student an opportunity to practice
- can also be used as an assessment device
- homework that is not evaluated (or perceived as being evaluated), or seen as busywork is everybody's waste of time
- Don't assign if you don't plan to do something with it.

A slide titled "Formal Method" with a yellow background and a light blue header. The title is in red. On the left, there is an illustration of a laptop, a pencil, and a notepad. On the right, there is a small illustration of a desk with a computer monitor and keyboard. The slide contains a bulleted list of points.

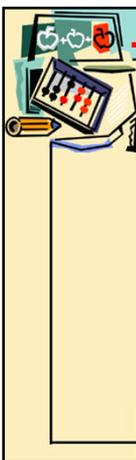
Formal Method

- On a weekly quiz, students are asked to answer ten questions
- A team of students is asked to design and conduct an experiment to calculate ...
- Students are given the results of five students who performed ... are asked to evaluate and decide ...
- Devising their own approaches to reviewing and interpreting the data, applying it, and explaining why they selected a particular "winner."



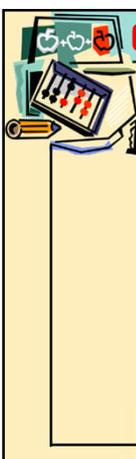
Just give me the test..

- Formal assessment methods generally involve the use of a test
- tests can vary in their form and effectiveness
 - forms of tests such as: multiple choice tests, true-false, fill-in-the-blank, analogies, matching and short answer or essay.



..that's an old song

- trend is toward increasing use of performance assessments, using questions that look more like activities, and using student portfolios



Guidelines

- Use as an opportunity to demonstrate learning
- Don't use as punishment
- Minimize completion and matching ?
- Design questions to evaluate science processes and attitudes



Guidelines

- Review the test afterwards
- Should not be the sole criterion
- Place easiest questions first
- Consider time requirements
 - Needs and early finishers
- Establish test taking rules





True/False

- 75 items needed to overcome guessing
- Avoid
 - Trick statements
 - Memorization factors
 - Double Negatives
 - Ambiguous statements
 - Qualitative language
 - Complex statements





Multiple Choice

- More than 3 answers
- Hints:
 - All responses plausible
 - Consistent grammar
 - Same length
 - Randomize answers
 - Higher levels of understanding
 - Reduce the process of elimination
 - Distracters





Performance Assessment

- Performance assessments typically involve students, either individually or in small teams in the act of solving a problem, or thinking critically about a problem, data or observation
- Performance Assessment Links at:
 - <http://www.pals.sri.com/>





Portfolio

- Students collect and file their course work in a loose leaf notebook, or folder

Evaluated on a broad set of competencies, skills, performances, and products





Portfolio Characteristics

1. They contain real documents.
 - authentic representations of students' work, such as homework, laboratory data sheets, journal entries.
2. They contain a range of material.
 - in order to demonstrate a range of performance and ability.
3. They demonstrate growth over time.
 - For example, the daily journal entries will provide insight into the students' experience over time.



Test over?



The slide features a light blue header with the text "Test over?" in red. Below the header is a photograph of two yellow pencils with erasers and sharpened tips, crossed in an 'X' shape on a white, slightly wrinkled fabric surface. The slide is decorated with icons of a laptop, a pencil, and a document in the top-left corner, and a small desk icon in the bottom-right corner.

Rubrics

- Types
- Purposes
- Designing
- Examples

The slide features a light blue header with the text "Rubrics" in red. Below the header is a bulleted list of four items: "Types", "Purposes", "Designing", and "Examples". The slide is decorated with icons of a laptop, a pencil, and a document in the top-left corner, and a small desk icon in the bottom-right corner.

- "Why must you assess?", Wolfe Michael Roth (1997)
- What is your answer?
- How do you differentiate between an A and a C?
- Are you a member of CYA?

The slide features a light blue header. Below the header is a bulleted list of four items: "Why must you assess?", Wolfe Michael Roth (1997)", "What is your answer?", "How do you differentiate between an A and a C?", and "Are you a member of CYA?". The slide is decorated with icons of a laptop, a pencil, and a document in the top-left corner, and a small desk icon in the bottom-right corner.



Grading Criteria

- Or how do I grade this assignment?
 - **Specific Criteria**
 - Specific skills the students are expected to demonstrate
 - **General Criteria**
 - General skills across most assignments
 - Example: Format, Organization, neatness, mechanics



Criteria to Rubric

- Use prepared versions
- Prepare you own
- Remember- it must be on the rubric to be graded
 - You'll probably revise the second time around.



Purpose

- Provides criteria ahead of time
 - Establishes acceptable products and performances
 - Provides a criteria for judging
- Identifies specific items which need improvement
- Provide teachers with specific evidence/justification

3 Types of Rubrics

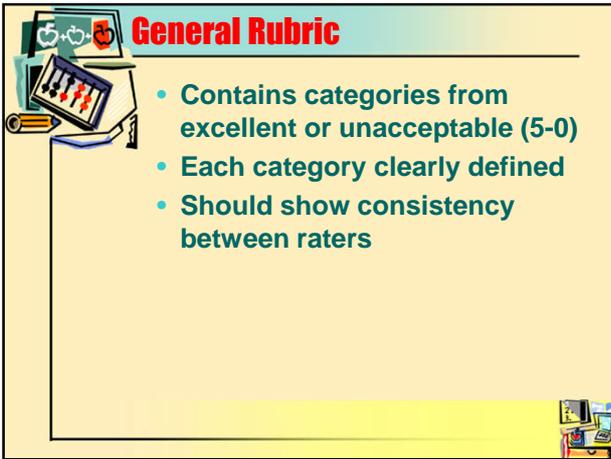
- **Common Rubrics**
 - Criteria for each level identified
 - Rating based on the criteria
- **Checklists**
 - Criteria for success
 - Criteria checked off

3 Types of Rubrics

- **Combination Rubrics**
 - General criteria listed
 - Specific criteria define general criteria
 - Checked off
 - General criteria are rated

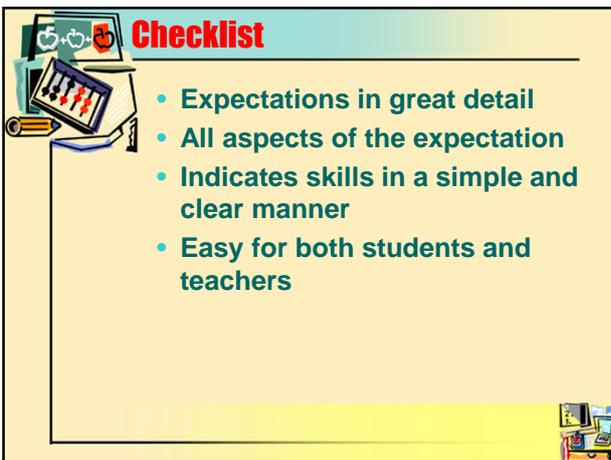
Rubric Info

- **A rubric is:**
 - A grading sheet
 - A description of success
 - Defines quality

A slide titled "General Rubric" with a yellow background and a light blue header. The title is in red. To the left of the title is an icon of a laptop, a pencil, and a document. A list of three bullet points is on the right. A small icon of a desk with a computer is in the bottom right corner.

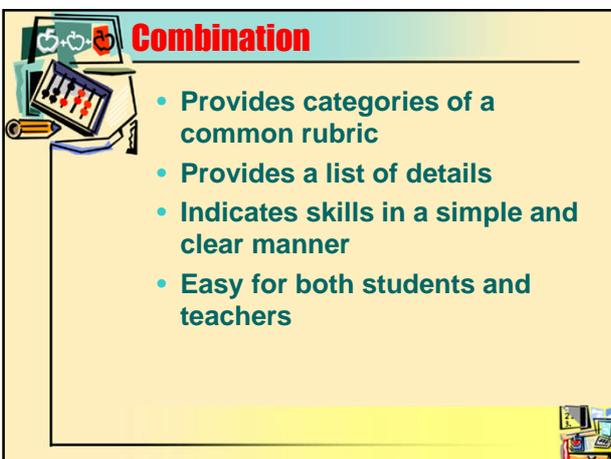
General Rubric

- Contains categories from excellent or unacceptable (5-0)
- Each category clearly defined
- Should show consistency between raters

A slide titled "Checklist" with a yellow background and a light blue header. The title is in red. To the left of the title is an icon of a laptop, a pencil, and a document. A list of four bullet points is on the right. A small icon of a desk with a computer is in the bottom right corner.

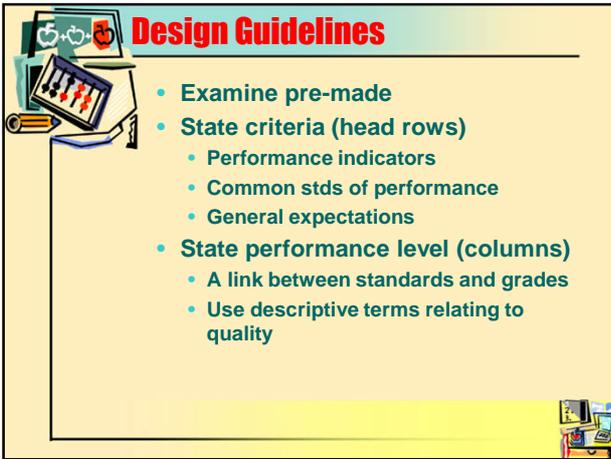
Checklist

- Expectations in great detail
- All aspects of the expectation
- Indicates skills in a simple and clear manner
- Easy for both students and teachers

A slide titled "Combination" with a yellow background and a light blue header. The title is in red. To the left of the title is an icon of a laptop, a pencil, and a document. A list of four bullet points is on the right. A small icon of a desk with a computer is in the bottom right corner.

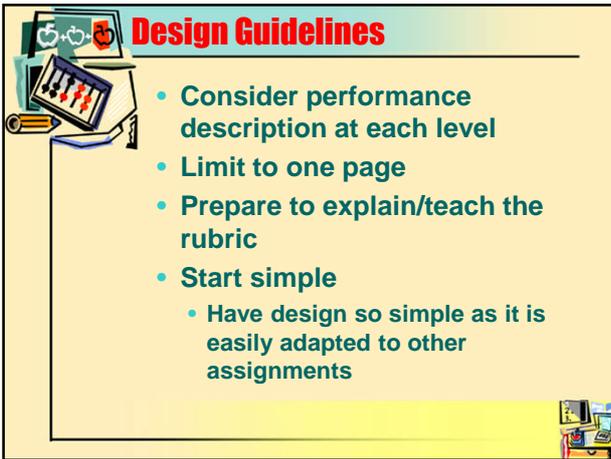
Combination

- Provides categories of a common rubric
- Provides a list of details
- Indicates skills in a simple and clear manner
- Easy for both students and teachers



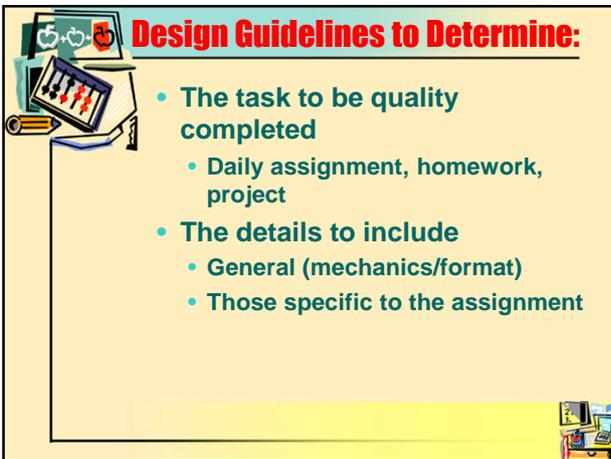
Design Guidelines

- Examine pre-made
- State criteria (head rows)
 - Performance indicators
 - Common stds of performance
 - General expectations
- State performance level (columns)
 - A link between standards and grades
 - Use descriptive terms relating to quality



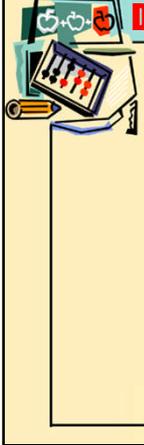
Design Guidelines

- Consider performance description at each level
- Limit to one page
- Prepare to explain/teach the rubric
- Start simple
 - Have design so simple as it is easily adapted to other assignments



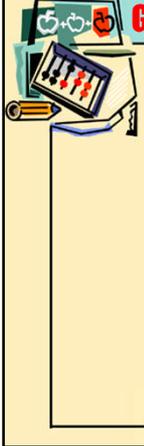
Design Guidelines to Determine:

- The task to be quality completed
 - Daily assignment, homework, project
- The details to include
 - General (mechanics/format)
 - Those specific to the assignment



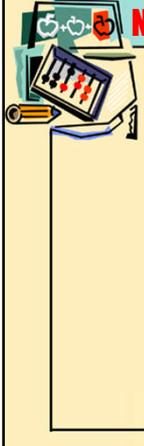
Design Guidelines

- **Structure**
 - Yes/No checklist
 - Scaled (quality, acceptable, unacceptable)
 - Point (1-3, 1-5 1-9)



Grade determination

- **Have the students learned the task/skill**
 - Finished only when all marks are acceptable
- **Assign a scale of points to each item**
 - Add up the points—grade
- **Set minimal criteria**
 - Acceptable a C ? B & A are beyond



Next time

- **Learning Centers**
