

Rubrics

A rubric is a useful tool for assessing work that is not objective such as the Activity and Exploration lessons. It allows you to establish criteria and evaluate performance based on those criteria. In a group activity, it is often beneficial not only to give the group as a whole a grade, but also to give each student an individual grade. You may choose to give the rubric to the student or to the group for self-assessment as the activity or project is completed. Your scores and comments on a rubric allow the student to see why he received a particular grade and shows him areas in which he can improve.

Specifically prepared rubrics are provided. For this style of rubric, assign points for each criterion and enter the points in the "Possible points" column. For example, if an experiment emphasizes measuring, the points for measurement should be higher than the points for the other criteria. As you assess the activity, enter the student's scores in the "Points earned" column. To determine a percentage grade, divide the total "Points earned" by the total "Possible points." Several rubrics are also provided to assess activities, presentations, and projects you add to enrich the program.

For additional suggestions for assessment and grading, see Teacher's Edition page xvi.

Construction Site

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skills—Identifying and Controlling Variables Student identified the variables changed after replicating his experiment			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Create an Eruption

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skills—Making and Using Models Student modeled one of the types of volcanoes			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student displayed organization of thought in the project			
Grammar & Spelling Student's completed presentation reflected proper use of grammar and spelling			
Project Design Student presented the material in a neat and visually appealing manner			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Soil Detective

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Retaining the Right Amount

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements.			
Recorded Information Student recorded necessary information			
Process Skill—Predicting Student made predictions based on his first trial			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Stream Erosion

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Recorded Information Student recorded necessary information			
Process Skill—Measuring Student took accurate and appropriate measurements			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Clean Up the Spill

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Making a Model Student accurately modeled one of the types of oil cleanup methods			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Erosion Prevention

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Inferring Student made correct inferences and conclusions based on his observations and evidence from the experiment			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Cell Model

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Recorded Information Student recorded necessary information			
Organization Student displayed organization of thought in the project			
Project Design Student presented the material in a neat and visually appealing manner			
Grammar & Spelling Student's completed presentation reflected proper use of grammar and spelling			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

An Organized Cell

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student presented information in a logical sequence			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Visual Aid (optional) Student used a visual aid that reinforced the presentation			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Classifying

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Recorded Information Student recorded necessary information			
Process Skill—Classifying Student created an effective classification system for the pasta			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Snail Terrarium

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Mealworm Movement

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Observing Student made accurate and thorough observations			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Blubber Mitts

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Process Skills—Collecting and Recording Data Student collected and recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Animal Robotics

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Project Design Student presented the material in a neat and visually appealing manner			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Classification Check

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student presented information in a logical sequence			
Process Skill—Classifying Student correctly classified plants			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Plant Products

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student presented information in a logical sequence			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Visual Aid (optional) Student used a visual aid that reinforced the presentation			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

How Big Is My Tree?

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Recorded Information Student recorded necessary information			
Process Skill—Measuring Student took accurate and appropriate measurements			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Wanted: U or Your Element

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student displayed organization of thought in the project			
Grammar & Spelling Student's completed presentation reflected proper use of grammar and spelling			
Project Design Student presented the material in a neat and visually appealing manner			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Hot or Cold

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Process Skills—Collecting and Recording Data Student collected and recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

pH Indicator

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Process Skills—Collecting and Recording Data Student collected and recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Which Antacid Is Best?

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Hypothesizing Student wrote an appropriate hypothesis for the problem			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

An "Unbreakable" Circuit

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Experimenting Student made appropriate alterations to the hypothesis and retested			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Famous Inventors

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student presented information in a logical sequence			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Visual Aid (optional) Student used a visual aid that reinforced the presentation			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Build an Electromagnet

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Predicting Student made careful predictions based on the evidence			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Mini Cars in Motion

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student presented information in a logical sequence			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Visual Aid (optional) Student used a visual aid that reinforced the presentation			
Process Skill—Experimenting Student correctly controlled the variables to give an accurate representation of the laws of motion			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Roller Coaster

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

How Much Force?

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Defining Operationally Student showed an operational knowledge of the terms			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Pinhole Constellations

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Process Skill—Making a Model Student made and used the model of a constellation			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

A Different Look

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Stargazing

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Recorded Information Student recorded necessary information about his observation			
Visual Student sketched and named his own constellation			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Crater Creations

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Process Skill—Recording Data Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Rocket Race

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Hypothesizing Student correctly wrote a hypothesis to answer the problem			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Spare Parts Solar Oven

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Inferring Student made appropriate inferences based on evidence from the project			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Solar Walk

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Travel Brochure

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student displayed organization of thought in the project			
Grammar & Spelling Student's completed brochure reflected proper use of grammar and spelling			
Project Design Student presented the material in a neat and visually appealing manner			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Flower Dissection

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Recorded Information Student recorded necessary information			
Process Skills—Measuring and Using Numbers Student took accurate and appropriate measurements			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

It's a Race!

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Observing Student made daily detailed observations			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

It's All in the Genes

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Process Skill—Recording Data Student recorded necessary information gathered during the survey			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

DNA Extraction

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Paper Pet Genetics

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Recorded Information Student recorded necessary information			
Presentation Student demonstrated good presentation techniques <ul style="list-style-type: none"> • eye contact • posture • pronunciation • volume 			
Process Skills—Making and Using Models Student accurately represented the data in neat and visually appealing models			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Reaction Time

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skills—Identifying and Controlling Variables Student correctly identified and controlled variables			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Touch Tester

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Predicting Student predicted outcomes based on gathered information			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Of Epidemic Proportions

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Materials Student handled materials properly			
Measurements Student took accurate and appropriate measurements			
Recorded Information Student recorded necessary information			
Process Skill—Inferring Student made inferences and drew conclusions based on the evidence gathered through observations			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments:

Extra, Extra, Read All About It!

Name _____

Category	Possible points	Points earned	
Instructions Student followed instructions			
Research Student researched thoroughly and accurately			
Organization Student displayed organization of thought in the project			
Grammar & Spelling Student's completed presentation reflected proper use of grammar and spelling			
Project Design Student presented the material in a neat and visually appealing manner			
Content Student showed understanding of content			
Completed Task Student completed task in a timely manner			
Independent/Group Work Student worked independently when required or made a worthwhile contribution to a group			
Total			Grade

Comments: