

Exploring the Solar System

Name _____
Date _____ Period ____ Score ____/4

	4	3-READ FIRST!	2	1
Drawing with captions Venus Demo ___/4	___ Exceptional details are included Additional information/notes would include information about: ___ how the density of the atmosphere would affect entry of a probe ___ what surface conditions could/would affect a robot attempting to explore the surface ___ at least 2 <u>additional</u> details	Each step of the demo is drawn and explained. The explanation includes a description of what exactly is being modeled by the demonstration. ___ Heating the can ___ Heating the glass ___ Sulfuric acid	1 portion of the 3-proficient response is missing or incomplete	2 or more steps of the demo are incompletely recorded
Drawing with captions Jupiter Demo ___/4	___ Exceptional details are included Additional information/notes would include information about: ___ how the density of the atmosphere would affect entry of a probe ___ what surface conditions could/would affect a robot attempting to explore the surface ___ at least 2 <u>additional</u> details	Each step of the liquid nitrogen demo is drawn and explained. The explanation includes a description of what exactly is being modeled by the demonstration. ___ Banana ___ Rubber tubing ___ Super/racquet ball ___ Balloon ___ Bimetallic strip	1 portion of the 3-proficient response is missing or incomplete	2 or more steps of the demo are incompletely recorded
Paragraph 1 Venus Probe Design ___/4	In addition to 3-proficient topics the paragraph should include: ___ effects of high atmospheric pressure ___ advanced discussion of materials and design issues that would be encountered ___ clear evidence of research beyond the material presented during the demonstration	Basic design criteria that would be necessary to overcome: ___ Excessive heat ___ Acid in atmosphere ___ Molten surface ___ Basic discussion of material requirements	1 portion of the 3-proficient response is missing or incomplete	2 or more portions of the 3-proficient response is missing or incomplete
Paragraph 2 Jupiter Probe Design ___/4	In addition to 3-proficient topics the paragraph should include: ___ effects of low atmospheric pressure ___ advanced discussion of materials and design issues that would be encountered ___ clear evidence of research beyond the material presented during the demonstration	Basic design criteria that would be necessary to overcome: ___ Excessive cold ___ Liquid surface ___ Basic discussion of material requirements	1 portion of the 3-proficient response is missing or incomplete	2 or more portions of the 3-proficient response is missing or incomplete
Paragraph 3 Evaluation of Venus Model ___/4	Advanced critique of the model would include all of the criteria for a 3-proficient response and at <u>discuss</u> least 3 additional topics. These could include: Model did not represent ___ Dense cloud cover ___ Limited vision ___ Volcanic eruptions ___ Gravity ___ Day length ___ Seasons ___ Weather	These positive aspects discussed ___ Heating can represent extreme temperatures ___ Heating glass represents molten surface ___ Sulfuric acid represents atmospheric conditions ___ Bimetallic strip represents heat extremes on metal At least 1 negative aspect should be discussed ___ Atmospheric pressure not demonstrated ___ Contents of the atmosphere (mostly carbon dioxide) not modeled ___ other (specify) _____	1 portion of the 3-proficient response is missing or incomplete	2 or more portions of the 3-proficient response is missing or incomplete
Paragraph 4 Evaluation of Jupiter Model ___/4	Advanced critique of the model would include all of the criteria for a 3-proficient response and at <u>discuss</u> least 3 additional topics. These could include: Model did not represent ___ Dense cloud cover ___ Limited vision ___ Liquid surface ___ Gravity ___ Day length ___ Seasons ___ Weather	These positive aspects discussed ___ Banana represents food issues ___ Balloon demo shows extreme affect on gases ___ Rubber tubing / super ball / racquet ball representing extreme cold on flexibility ___ Bimetallic strip represents cold extremes on metal At least 1 negative aspect should be discussed ___ Atmospheric pressure not demonstrated ___ Contents of the atmosphere (mostly hydrogen not modeled ___ other (specify) _____	1 portion of the 3-proficient response is missing or incomplete	2 or more portions of the 3-proficient response is missing or incomplete