

National Aeronautics and Space Administration



Living and Working in Space: Habitat Assessment Rubric: Healthy Choices

Living and Working in Space: Habitat

Assessment Rubric Healthy Choices

Guide Questions: How can humans maintain proper nutrition and exercise? What modifications are necessary for extended space missions?

Task to be assessed: Students will design a healthy diet and exercise plan for an extended stay on the Moon or Mars and explain why it should be appropriate on the Moon or Mars.

Knowledge Areas

	Exemplary	Proficient	Developing	Novice
Understanding of characteristics of a healthy diet and exercise plan on Earth	Plan includes accurate information about the requirements for proper nutrition and exercise. Plan is very detailed and quantitative and reflects the needs of a variety of people. Presentation adds information and insight into the plan.	Diet plan requires proper amounts of different kinds of food that are appropriate for good nutrition. Exercise plan is appropriate to maintain health. Presentation includes accurate information on how to use nutrition and exercise guides.	Diet plan includes eating a variety of foods and eating less sugar and fat. Exercise plan focuses on the importance of exercise or a specific approach.	Diet and exercise plan are based on personal likes and experiences
Understanding of current diet and exercise adaptations for space missions	Plan includes accurate information of current diet and exercise adaptations for space missions. Differences between requirements for Earth and the Moon or Mars are clearly explained. Adaptations are appropriately and creatively used to support missions to the Moon or Mars.	Plan is appropriate to a mission to the Moon or Mars. Plan uses what has been learned on the ISS and makes appropriate modifications for the Moon or Mars.	Plan is essentially the same as a diet and exercise plan on the International Space Station.	Plan for space missions is essentially the same as for Earth.

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Assessment Rubric Healthy Choices (continued)				
Knowledge Areas (continued)				
	Exemplary	Proficient	Developing	Novice
Understanding of resources and challenges on the Moon or Mars	Plan includes accurate information about the resources and challenges of providing a nutritious diet and healthy exercise on the Moon or Mars. Attempt is made to quantify resources and challenges in comparison with Earth.	Plan uses technology and local resources to solve the challenges of providing a nutritious diet and healthy exercise on the Moon or Mars. Presentation describes how challenges are met.	Plan focuses on some of the challenges of providing a nutritious diet and healthy exercise on the Moon or Mars. Presentation describes the challenges.	Plan is based on the assumption that Mars is very similar to Earth, but hotter (or colder), and the resources will be the same. OR Design includes constant re-supply of food.
Integration of Knowledge	Plan takes into account a healthy plan for Earth, current adaptations for the ISS, and modifications necessary for the Moon or Mars. Presentation describes the inter-relatedness of all knowledge areas clearly and accurately.	Plan takes into account a healthy plan for Earth, current adaptations for the ISS, and modifications necessary for the Moon or Mars.	Plan takes into account more than one knowledge area, and one dominates.	Plan tends to focus on one knowledge area, assuming the Moon or Mars will not be different from Earth.
Effectiveness of Presentation	Presentation was clear, accurate, well organized, and interesting. Visual aids were accurate, attractive and important to the presentation. A focus of the presentation was the audience understanding the plan and the reasons to expect success at chosen location.	Student presentation organized ideas in a logical or creative way. Visual aids were used to highlight the ideas. A focus of the presentation was the audience understanding of the diet and exercise plan.	Student presentation was clear and organized. Visual aids were used.	Student presented ideas as they came to mind.