**TEACHER KEY: Questions for the Group to Answer**

1. Where is NASA’s Johnson Space Center located and who is it named after?

Houston, Texas. It is named after President Lyndon B. Johnson.

1. In two or three sentences, describe what flight controllers do in Mission Control?

Flight controllers keep a constant watch on activities of crews in space and monitor their spacecraft systems. This includes crew health and safety. They are on duty 24 hours a day—seven days a week and they are highly trained to respond to unexpected events.

1. Who was the Neutral Buoyancy Laboratory named after and what is the mission of this lab?

The lab was named after Astronaut Manley L. “Sonny” Carter, Jr. It’s mission to to prepare for spacewalks outside of spacecraft.

1. What is neutral buoyancy and how is it like zero gravity? How is it different?

Neutral buoyancy is the equal tendency of an object to float or sink. Neutrally buoyant objects seem to hover under the water, so this makes them easy to move just like objects in the zero gravity of space. These objects are different in that they are not truly weightless like in space and that the water provides a drag slowing down motions.

1. Write a sentence that compares the size of the Neutral Buoyancy Lab to the International Space Station.

The NBL is 202 feet in length, 102 ft wide and 40 ft deep. Despite this, the ISS will not fit inside the NBL.

1. Name two of the systems associated with the Neutral Buoyancy Lab and describe them.

These systems are listed on the back of the NASA facts page on the Sonny Carter Training Facility. Students should choose two and write at least one sentence about the purpose of each.

1. What is the Space Vehicle Mockup Facility at JSC?

This is a place where astronauts, engineers and others learn skills and procedures with space shuttle trainers, international space station trainers and other trainers that allow them to practice for missions.

1. On another piece of paper, list three people who work at JSC, their job title and a brief description of what they do. Students will find their answers on the JSC experts hand out.
2. **Questions for NASA Experts:**

List at least 10 questions that you would like to ask an expert at the Johnson Space Center. You may direct them towards specific experts from one of the handouts or a more general question towards any expert that works at NASA. Place the questions in order of importance to your group. The Communicator should practice asking these questions.

Try to make sure questions are not general questions about Mars but that they questions are directed to the experts’ backgrounds or work. Appropriate questions include what they were like as students, what schools they attended, etc., or about their current work at JSC.

1. **Questions about videoconferencing and/or the *Mission to Mars*:**

List other questions that you have about videoconferencing and/or the *Mission to Mars*

1. **List two questions on an index card for the JSC Expert.** Be sure to put your name on this card and turn it in to your teacher. Be sure that the questions are appropriate.

**Return these cards to the students on the day of the mission.**