Mars Rover Celebration Assessment Answer Key

1. How would you describe the size of our solar system (size of the sun and planets and the distance away from Earth) to a friend? __Answers may vary. Possible answers include a description of how large the solar system is or the distances between the planets_________.

2. Why is it important to have a clear PURPOSE before beginning research? __Helps you stay on task, keeps you from getting lost in the details_________________________.

3. Name three characteristics of the terrain on Mars. Answers may vary. Possible answers include:
   1. ___dry, cold wasteland______________________________
   2. ___pitted by craters_______________________________
   3. ___layered with dust________________________________

4. What does it mean to SCAN text while conducting research? ___To skim (read quickly) text looking for key words______________________________________

5. What are three things to consider when designing a successful mission to Mars? Answers may vary. Possible answers include:
   1. ___what problem to solve____________________________
   2. ___what features the rover should have to solve the problem_____________________
   3. ___how to collect data that will solve the problem________________________________

6. Name three organizational tools/aids that can help you find the information you need when conducting research. Answers may vary. Possible answers include:
   1. ___Table of Contents/ Navigation Bar_________________________________________
   2. ___Index, Glossary, Preface, Appendix________________________________________
   3. ___Search and Find Feature__________________________________________________

7. Why is it important to ask good questions? __Helps to better define the problem that will be solved.______________________________________________________________________________________
8. How are math, science and reading skills important when conducting a research project?
   Helps us to collect important information and to read and understand what we have found; helps us to learn and use skills that real scientists and engineers use

9. How can you tell what is IMPORTANT from what is INTERESTING as you conduct research?
   Keeping your purpose in mind; knowing that authors often put important information in the first sentence; knowing that important information is often repeated; using text features

10. Why is it important to consider different solutions to a problem?
    Different solutions help us to figure out which one(s) best meet the criteria and constraints of a problem.

11. Why is the Engineering Design process important to scientists and engineers?
    Helps define a process for designing, building and refining a product that will solve a problem

12. What are some tools you can use to figure out the meaning of new VOCABULARY?
    Using prefixes, suffixes and root words; breaking down compound words; using the context (the words and sentence around the new word); using a student-friendly online dictionary; using cognates

13. Why is creating a prototype useful?
   Answers may vary. Possible answers include: helps us to see what works and what doesn’t; helps improve design

14. What are the KEY FEATURES of a FORMAL (professional) presentation?
    Using academic language; writing/speaking in complete sentences; using good grammar; using accurate information

15. What are 3 skills that are needed to work successfully with a team?
    Answers may vary. Possible answers include:
    1. teamwork
    2. communication
    3. problem solving skills