

Lesson 3: Application Day II

Preparatory Readings (continued from Lesson 2)

LP #	Unit 1: Mission Big/ App Process	LP #	Unit 2: Space Weather	LP #	Unit 3: Radiation Health	LP #	Unit 4: Power Systems	LP #	Unit 5: Life Support	LP #	Unit 6: Pre-Mission Prep
	Mission Briefing	4	Specialist Orientation		Chapter 2		Chapter 3		Chapter 4	13	Overview of Teams
1	The Mission		Chapter 1	7	New Frontiers & New Dangers	9	The Energy Supply Problem	12	How I Discovered Air	13	Mission Directives
1	We Need You	4	Here Comes the Sun	8	Electromag Rad: Taming the Wild Energies	9	Rechargeable Batteries	12	A Weighty Discovery	13	Classroom Setup
1	Space Station Alpha	4	Inside the Atom	7	Do You Want the Recipe?	10	All About Power	12	Living in a Bubble	Team Preparation Introductions	
opt	Verizon	5	Sheer Magnetism (Hands On)	7	In the Kitchen with Poly	10	Emergency Procedures	12	Breathing on the Space Station		
	How to Apply	5	Dr. Z. Inside the Sun	7	Measuring Exposure to Radiation	10	Practice Ex: Power on the SS (Hands On)			13	STORM Team Overview
2	Apply Today				Enrichment Activities		Enrichment Activities			13	Radiation Team Overview
2,3	Personal Essay			7	Ready, Aim, Mutate! (Hands On)	10	Electrical Current Mag Field (Hands On)			13	Power Team Overview
2,3	Class Activity: Station Systems			7	Sweet Dreams are Made of These (Hands On)	10	Electrical Circuit: Quick Guide (Hands On)			13	Life Support Team Overview
opt	Mission Patch			7	Are You Too Hot? (Hands On)	10	Nailing Down Energy (Hands On)			13	Communications Team Overview
						10	A Shocking Discovery (Hands On)				
						10	Electrolysis (Hands On)				
						10	It's Electric (Hands On)				

Other Homework Due: Students bring in the first draft of their *Personal Essay*

Subject

Complete application process.

Description of Student Activities

Students share and get feedback on their *Personal Essays*. (Final version is due next class). Students complete *Class Activity* and get ready to submit the class application.

Duration

10 min. Review *Personal Essay*
35 min. Part Three and Four of *Class Activity*

Main Topics (continued from Lesson 2)

1. The application process is a combination of individual and team involvement.
2. Space station systems are designed to support and sustain human systems and human work functions.
3. Working under time constraints as a team requires cooperation.
4. The point of the exercise is for teams to prove that they can handle the *process*. Emphasize that Challenger is looking for students who demonstrate cooperation, creativity, organization, working under pressure and problem solving. Although we are looking for *good* answers, we are not requiring that the answers be thoroughly researched, or based on scientific accuracy

Materials

How to Apply:
Personal Essay
Class Activity: Space Station Systems

Outcomes (continued from Lesson 2)

1. Students will contribute to a team effort.
2. Students will work under time constraints to accomplish a group task.
3. Students will demonstrate cooperation, creativity, organization, ability to work under pressure, and problem solving skills.

Special Comments

The students will receive a quick response from the Challenger Learning Center regarding their application.

A live session with personnel at Challenger Learning Center's Mission Control may be possible upon arrangement.

Next Lesson

During the next lesson, you will conduct both a "Space Station Stumper" quiz and begin the *Sheer Magnetism* exploration. Gather enough materials so that all groups can do all steps of the exploration.

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Procedure:

1. (10 min) At beginning of class, have pairs of students share drafts of *Personal Essays*. This may be done by collecting all of them and redistributing randomly, or by creating small group circles in which each person passes his or her essay to the left. We don't recommend having students decide for themselves who gets to edit their papers. Give class a few minutes to proofread and make suggestions or ask questions for improvement. Collect edited *Personal Essays* and return to authors.
2. Conduct and complete second half of *Class Activity*.
3. The application can be submitted by as an e-mail attachment, , by fax, or by US Postal service (overnight delivery). It is important that the students completed application is sent as quickly as possible so the Challenger Learning Center has time to review and respond in a timely manner.

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IMPORTANT: Allocate time at the end of this period to introduce the idea of the Atom as the next topic for study. You may wish to point out that the Universe, as we know it, consists of atomic and sub-atomic particles, molecules, anti-matter, and other entities that are, even at this time, being discovered by scientists. Understanding and appreciating some fundamental ideas about the atom will help the students unlock some of the secrets of the sun and the dangers on Space Station Alpha. Tell the students that there will be an "open book" quiz based upon their reading of this article. the quiz need not be graded, unless you choose to do so.)

Homework for Lesson 4

- Prepare for the *Space Station Stumper Quiz*
- Read Specialist Training: *Specialist Orientation* and Chapter 1: Space Weather *Here Comes the Sun* and *Inside the Atom*
- Write **final** draft of *Personal Essay*