

The Space Shuttle - Hamilton

Mr. Hamilton, Room S38, lhamilton@apamail.org

Course Description: The Space Shuttle is a look into the U.S. space program that was ushered into existence with the U.S.S.R. launch of Sputnik in 1957. The course will further examine the advances in science, engineering, technology, and aerospace as the USA entered into the 'Space Race'. The class will start with the selection of an appropriate site for launching rockets which was followed by the Mercury, Gemini, and Apollo programs. As the Apollo program came to a close, we will explore the mindset that led to the Space Shuttle program and the 135 launches that has produced so many advances in technology, space exploration and our understanding of the universe and the world we inhabit. The course will end by looking at the current space capabilities and what is planned for the future.

The milestones that will be addressed are:

- Sputnik and the creation of NASA
- The highlights of the fledgling space program
- The astronaut selection process
- The Mercury, Gemini, and Apollo programs
- The in between years of the Apollo program and the Space Shuttle
- The Space Shuttle program from initiation to completion with highlights on significant events
- The current state of space exploration and plans for the future of space

Materials: Composition notebook, pens, pencils for notes

Field Trip: The class will participate in a field trip on January 9th to the Clark Planetarium in Salt Lake City. Students are expected to be in school uniform (no name tags), groomed, and well behaved. Parent chaperones are encouraged and welcome to attend this field trip.

Media: The class will be watching four films that align with curriculum to foster student understanding of the events and circumstances that surrounded the U.S. Space Program development and execution. The films that will be used are as follows:

October Sky (1999) - The true story of Homer Hickam, a coal miner's son who was inspired by the first Sputnik launch to take up rocketry against his father's wishes.

The Right Stuff (1983) - The U.S. space program's development from the breaking of the sound barrier to selection of the Mercury 7 astronauts, from a group of test pilots with a more seat-of-the-pants approach than the program's more cautious engineers preferred.

Apollo 13 (1995) - NASA must devise a strategy to return Apollo 13 to Earth safely after the spacecraft undergoes massive internal damage putting the lives of the three astronauts on board in jeopardy.

The Space Shuttle (2011) - An idea born in unsettled times becomes a feat of engineering excellence. The most complex machine ever built to bring humans to and from space and eventually construct the next stop on the road to space exploration.

Students interested in the class who do not receive permission to view the films are still welcome to participate! However, they will be given alternative assignments on those days. I give permission for my student to watch the above films. If not, an alternate activity will be provided.

☐ YES

☐ NO

Student Name (First and Last): _____

Student Signature (First and Last): _____

Parent/Guardian's Signature (First and Last): _____