

# $\begin{array}{c} \text{Grade Five} \\ Galaxy \ V \end{array}$



#### **Managing the Complexity of Systems**

This Super Unit is a structured inquiry into helping the learner understand the world around them. Learners will manage the complex systems of our world. Learners will be empowered to improve the effectiveness and efficiency of the systems in our world. Learners will develop their ability to do systems thinking.

## Systems interact on 1



### Highlights of Learning Experiences

SuperUnit Launch: Students will be introduced dramatically to their project program through an interactive presentation of Universe Sandbox in the Auditorium.

Field Trip(s): TBA

Guest Speaker(s): Possible Skype interview with a retired NASA engineer

Project(s): Each individual student makes an iOS app that demonstrates knowledge from all relative science and social studies standards.

Core Values (describe the key concepts)

- \*Academic Excellence (fundamental knowledge)
- \*Sense of Self (our place in the universe)

SuperUnit Celebration: Students will share their published app that highlights their knowledge of space and app development.



#### Focus on Learning by Subject

Science: Space System: Stars and the Solar System; Earth's system

SS: Geography - Factors that influence human migration and human populations

English: Expand oral and reading vocabulary by learning Latin roots used in academic English. Refine expository writing skills by writing informational paragraphs.

Math: Large numbers, ratio, scale, relationships, and graphing

Art: Students will make a sculpture based on shape and form using negative and positive space.

Drama: Students will script and film a short action scene utilising foley recording techniques to add dramatic sound effects.

Music: Students will compose background music to accompany the short action film the students script and film in Drama class.

PE: Students will look at the different roles players on a volleyball team assume and the system a team develops to maximise success. Students will understand that all parts and are required to function and complete their task or the whole system fails.

Vietnamese: Students will be learning vocabulary regarding space, weather and environmental systems in Vietnamese.

## many different scales.



#### Questions to Ask your Child

- 1. What are systems?
- 2. How do parts of systems interact?
- 3. How do interactions affect a system?
- 4. How is the universe a system?
- 5. What systems are you



#### Home Learning

Working independently on Universe Sandbox exploring the systems that define our universe.

Exploring documentaries about the complex systems surrounding human ventures into space.

Homework associated with unit studies in class.



#### Suggested Home Extensions

Take a star walk in the countryside during the weekend. Try to identify important stars and constellations.

Build a model rocket and launch it somewhere safe.

Explore computer simulation programs together such as Kerbal Space Program, Survive Mars, or similar programs that teach about various aspects of life and science outside our own biosphere.

Discuss ways in which you and your family can help preserve our own planet for future generations.



#### Key Vocabulary

planet, star, solar system, universe, orbit, revolution, rotation, axis, moon, galaxy, habitable, geosphere, atmosphere, hydrosphere, gravity, mass, variable, astronomer

Super Unit Launch: Galaxy V Launch, April 5, Auditorium Field trips: TBA Guest speakers: Possible Skype interview with retired NASA engineer **Super Unit Celebration**:

Students will demonstrate their iOS Apps.



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