

For this unit we will use Chapters 19 - 21 in Prentice Hall Science Explorer: Earth Science (textbook)

Tie in NASA missions past present and future!

For next - Astronomy 2020 - exploration (after Sun/earth/moon) all through
lense of compare contrast Mercury/apollo prog vs Space Shuttle/space
station/hubble vs Mars exploration

- Students REALLY lacking understanding of the difficulty of leaving earth, and much misinformation about life/water beyond earth as well as any understanding of the scope of exploration of Moon & mars and solar system that has been done already!

Intro to Astronomy – questions for thought & discussion

Week 1 & 2 – Sun – Earth – Moon system - Seasons

Textbook – Ch. 19 section 1 (p. 660 - 661)

Vocab: rotation
 revolution orbit

Week – Textbook – Ch. 19 section 2 (p. 662 – 665)

Vocab: solstice
 equinox

Week 3 & 4 – Moon Phases/ Tides/ Apollo and mercury missions Textbook – Ch 19 section 3: p.670 - 677

Moon phase cards – hypothesize & discuss

Styrofoam balls & light source - whole class activity, “Your head is the earth”

Vocab: eclipse/ solar eclipse/ lunar eclipse
 Umbra/ penumbra

**** Review Styrofoam ball on a pencil, “your head is the earth” activity**
 Spring tide / neap tide

Textbook Ch. 19 section 4 – Earth’s Moon 678 – 683)

How scientists think the moon formed (know it!)

Week 5 the SUN

Textbook Ch. 20 section 2 p. 706 – 710

Vocab: core Convection Zone corona prominence
 Nuclear fusion photosphere solar wind solar flare
 Radiation zone chromosphere sunspot

Sun posters

Keep a copy of this unit outline - either paper or electronic - for planning and reference

Week 6& 7 – the Solar System

Exploring our Solar System...

- * classifying photos of objects –is Pluto as a planet?– STC scale model (hypothesizing)
- Making a Scale Model – pocket solar system

Textbook – Chapter 20 (all – sections 1, 3, 4, 7... p. 698 – 737)

Lots more info about the planets, & more about exploration

*****PROJECT Solar System! – details to follow.

Week 8 – Impact Craters, surface features, asteroids

Textbook Ch. 20 Section 5: Comets, Asteroids, & Meteors p. 730 – 733

Vocab:

Comet

Asteroid

atoms

Meteor

Kuiper belt

molecules

Week 9 - Space Exploration... Stars, Galaxies, and the Universe

Textbook Ch. 21 p. 744 – 759

Robotic vs. Manned exploration – read two articles, answer questions & make an opinion...

Unit Test for this material will be