



SPHERES OF EARTH

Background Information Outline and Notes

Read the information on pages 2-4 and fill out the outline below to record important information. Answer the questions below to help summarize the information.

CREW EARTH OBSERVATIONS

1. What are Crew Earth Observations?
2. What types of cameras are used for Crew Earth Observations?
3. Where can you find the 900,000+ astronaut photographs?
4. List 3 different variables that change be changed and allow for astronaut photographs to be a unique and useful data set:
 - a. _____
 - b. _____
 - c. _____
5. Higher camera focal lengths (800mm, 400mm) = _____
area imaged with greater detail. *(smaller or larger)*
6. Lower camera focal lengths (50mm, 80mm) = _____
area imaged with less detail. *(smaller or larger)*
7. List other important information, details, or questions in the space below:



EARTH SYSTEM SCIENCE

1. Earth System Science involves looking at Earth as a set of systems that are all connected and influence the Earth as a whole. Each individual system consist of features that together play a role in keep our Earth in _____.

2. Match each Earth System with its appropriate description:

Atmosphere

Water in solid and liquid states

Biosphere

Rocks, sediments, soils, surface landforms, and processes

Hydrosphere

Living systems

Litho/Geosphere

Mixture of gas and small particles located above and surrounding the Earth's surface

3. List at least 2 features associated with each Earth System:

Atmosphere: _____, _____,

Biosphere: _____, _____,

Hydrosphere: _____, _____,

Litho/Geosphere: _____, _____,

4. List other important information, details, or questions in the space below:



EARTH SYSTEM CONNECTIONS

- As scientists focus on features within one Earth system, they must consider the influences from other systems. Visible effects can sometimes be _____, but other times go unnoticed.
- The oil spill off the coast of Louisiana provides an example of how this catastrophic event affected the different Earth spheres. For each example, list which sphere was affected:

Statement	Sphere mostly affected
Oil spilling into the Gulf waters.	
The oil reached land and became mixed in with the soils and sediment along the coast.	
Coastal ecosystems were damaged by oil.	
The initial explosion caused gases and smoke were to be visible.	

- In almost all astronaut photographs you will see features representing different systems. TRUE or FALSE (circle one)
- List other important information, details, or questions in the space below: