

Congruence with the NGSS

Unit Title: **Earth From Space: Big Blue Marble**

Science and Engineering Practices (SEPs)

SEPS	Activities
Asking Questions and Defining Problems	<ul style="list-style-type: none"> ● Hurricanes: Lab 1A ● Hurricanes: Lab2B
Developing and Using Models	<ul style="list-style-type: none"> ● Blue Marble Matches ● Hurricanes: Lab 1A
Analyzing and Interpreting Data	<ul style="list-style-type: none"> ● Earth System Science: Lab 6A ● Blue Marble Matches ● Hurricanes: Lab 1A ● Hurricanes: Lab2B ● Climate and the Cryosphere: Lab 5A ● Climate and the Cryosphere: Lab 5B ● Ocean Impacts on an El Niño Event
Using Mathematics and Computational Thinking	<ul style="list-style-type: none"> ● Climate and the Cryosphere: Lab 5A ● Climate and the Cryosphere: Lab 5B
Engaging in Argument from Evidence	<ul style="list-style-type: none"> ● Earth System Science: Lab 6A ● Hurricanes: Lab 1A ● Hurricanes: Lab2B ● Climate and the Cryosphere: Lab 5A ● Climate and the Cryosphere: Lab 5B
Obtaining, Evaluating and Communicating Information	<ul style="list-style-type: none"> ● Earth System Science: Lab 6A ● Blue Marble Matches ● Hurricanes: Lab 1A ● Hurricanes: Lab2B ● Ocean Impacts on an El Niño Event
Scientific Knowledge is based on Empirical Evidence	<ul style="list-style-type: none"> ● Earth System Science: Lab 6A

Disciplinary Core Ideas (DCIs)

DCIs	Activities
ESS2A: Earth Materials and Systems	<ul style="list-style-type: none"> ● Climate and the Cryosphere: Lab 5A ● Climate and the Cryosphere: Lab 5B

ESS2C: The Role of Water in Earth's Surface Processes	<ul style="list-style-type: none"> • Hurricanes: Lab 1A • Ocean Impacts on an El Niño Event
ESS2D: Weather and Climate	<ul style="list-style-type: none"> • Hurricanes: Lab 1A • Hurricanes: Lab2B • Climate and the Cryosphere: Lab 5A • Climate and the Cryosphere: Lab 5B • Ocean Impacts on an El Niño Event
ESS2E: Biogeology	<ul style="list-style-type: none"> • Earth System Science: Lab 6A • Blue Marble Matches
ESS3B: Natural Hazards	<ul style="list-style-type: none"> • Hurricanes: Lab 1A • Hurricanes: Lab2B
ESS3C: Human Impacts on Earth's Systems	<ul style="list-style-type: none"> • Earth System Science: Lab 6A • Hurricanes: Lab 1A
ESS3D: Global Climate Change	<ul style="list-style-type: none"> • Hurricanes: Lab 1A • Hurricanes: Lab2B

Cross Cutting Concepts (CCCs)

CCCs	Activities
Patterns	<ul style="list-style-type: none"> • Earth System Science: Lab 6A • Blue Marble Matches • Hurricanes: Lab 1A • Hurricanes: Lab2B • Climate and the Cryosphere: Lab 5A • Climate and the Cryosphere: Lab 5B • Ocean Impacts on an El Niño Event
Cause and Effect	<ul style="list-style-type: none"> • Earth System Science: Lab 6A • Blue Marble Matches • Hurricanes: Lab 1A • Hurricanes: Lab2B • Climate and the Cryosphere: Lab 5A • Climate and the Cryosphere: Lab 5B • Ocean Impacts on an El Niño Event
Scale, Proportion, and Quantity	<ul style="list-style-type: none"> • Hurricanes: Lab2B
Systems and System Models	<ul style="list-style-type: none"> • Earth System Science: Lab 6A • Blue Marble Matches • Hurricanes: Lab 1A

	<ul style="list-style-type: none"> • Hurricanes: Lab2B • Climate and the Cryosphere: Lab 5A • Climate and the Cryosphere: Lab 5B • Ocean Impacts on an El Niño Event
Energy and Matter	<ul style="list-style-type: none"> • Climate and the Cryosphere: Lab 5A • Climate and the Cryosphere: Lab 5B • Ocean Impacts on an El Niño Event
Structure and Function	<ul style="list-style-type: none"> • Hurricanes: Lab 1A • Hurricanes: Lab2B
Stability and Change	<ul style="list-style-type: none"> • Earth System Science: Lab 6A • Hurricanes: Lab 1A • Hurricanes: Lab2B • Climate and the Cryosphere: Lab 5A • Climate and the Cryosphere: Lab 5B • Ocean Impacts on an El Niño Event
Interdependence of Science, Engineering and Technology	<ul style="list-style-type: none"> • Earth System Science: Lab 6A