

Curriculum Unit
Title

First Grade Space Explorers

Author

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KEY LEARNING, ENDURING UNDERSTANDING, ETC.

From our place on Earth in the universe, we can observe patterns made by the movement of the Moon around our planet.

ESSENTIAL QUESTION(S) for the UNIT

Can you tell why the illuminated part of the Moon takes different shapes throughout the month?
Can you tell why the moon appears in different parts of the sky relative to your front door at different times during a month?
Can you tell why you can see the moon when the sun is in the sky?
Can you tell why you can see the moon on some nights when the sky is free of clouds, and not on other clear nights?

CONCEPT A

Illuminating Shapes

CONCEPT B

Making Observations

CONCEPT C

Making a Hypothesis About the
Moon's Movement Around the Earth

ESSENTIAL QUESTIONS A

How does light appear on different 2D
and 3D shapes when the light source is
stationary and the objects are moved
around it?

ESSENTIAL QUESTIONS B

What can I do to tell if there is a pattern to
the moon's shape throughout the month?

ESSENTIAL QUESTIONS C

How can I use a model to represent
my idea of how the moon moves
around the Earth while the Earth
moves around the Sun?

VOCABULARY A

illumination light source
orbit three dimensional
two dimensional sphere
circle rectangular prism
rectangle cylinder
triangle pyramid

VOCABULARY B

observation pattern
month record
collect collection
data prediction
analyze

VOCABULARY C

hypothesis model
represent theory
representation investigation
proof prove
explain explanation

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

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From our place on Earth in the universe, we can observe patterns made by the movement of the Earth around the Sun.

ESSENTIAL QUESTION(S) for the UNIT

Can you tell why the Sun appears in different parts of the sky relative to your fixed position?
Can you tell if there is a different amount of sunlight during a day at different times of the year and why?
Can you tell if there is more daylight in summer or winter months?

CONCEPT A

Location of the Sun (east to west)
throughout a day

CONCEPT B

Amount of daylight on any given day;
The Sun and the seasons

ESSENTIAL QUESTIONS A

How does the sun move across the
sky?

ESSENTIAL QUESTIONS B

Why do I have to wake up at night to go to
school?
Why do I have to go to bed when it is still
light outside?

VOCABULARY A

daylight rotation
east revolve
west revolution
north tilt
south axis

VOCABULARY B

day hour
night arc
daylight sun's path
season zenith
length

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

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