



Sheet 3 Answers

Predictions and observations of the features of the day and night skies

Instructions: Think about each of your senses to help you predict what you might observe when you view the sky. Then record your actual observations.

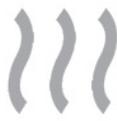
Day sky			
Predictions		Observations	
<p>Students should write or draw names or details of things they think they will observe in the day sky with the different senses.</p> <p>They may base this on general understanding or perhaps on what they have noticed about the day so far, for example:</p>		<p>Students should write or draw names or details of things they actually observe with the different senses for example:</p>	
	<p>Sight: sun, lots of white clouds</p>		<p>Sight: sun sometimes covered by clouds, white and grey clouds, wind blowing clouds across sky, white moon, birds</p>
	<p>Hear: wind</p>		<p>Hear: wind and far off rumbling</p>
	<p>Feel: wind and sun's warmth</p>		<p>Feel: warm wind, I feel sticky and hot</p>
	<p>Smell: fresh air</p>		<p>Smell: rain coming</p>



Sheet 3 Answers

Predictions and observations of the features of the day and night skies

Instructions: Think about each of your senses to help you predict what you might observe when you view the sky. Then record your actual observations.

Night sky			
Predictions		Observations	
Students should write or draw names or details of things they think they will observe in the night sky with the different senses. They may base this on general understanding or recent observations, for example:		Students should write or draw names or details of things they actually observe with the different senses, for example:	
	Sight: moon, lots of stars, fruit bats flying		Sight: round full moon, lots of stars, Southern Cross, some clouds, fruit bats
	Hear: maybe wind		Hear: wind, fruit bats' wings flapping
	Feel: maybe wind		Feel: warm wind, I feel sticky and hot
	Smell: fresh air		Smell: fresh warm air



Sheet 7 Answers

Rotating Earth investigation

Investigation question: How does Earth's rotation affect my view of the sun?

Predict:

I predict my view of the sun changes as Earth rotates because sometimes I am facing the sun and sometimes Earth turns me away from the sun.

What you will need:

- world globe or basketball
- two toothpicks
- torch
- re-usable adhesive
- marker (small piece of coloured paper to be a person standing on Earth)

What you will do:

1. If you are using the basketball, attach toothpicks with re-usable adhesive at opposite ends to create the 'axis'. The globe or ball represents Earth.
2. Attach the marker with adhesive near the 'equator' on 'Earth'.
3. Shine the torch ('sunlight') onto 'Earth' as the tutor rotates Earth anticlockwise on its axis. (Note: It may help if you perform this investigation in a darkened room.)
4. Make observations about how the 'sunlight' affects the marker and the surface of 'Earth' as it rotates on its axis.
5. Swap with your tutor so you can make observations looking from above.



Observe:

What did you observe? Write or draw your observations.	
Write	Draw

Explain:

1. Was the marker always in the 'sunlight'?
No
2. Where did the marker receive the most sunlight?
directly in front of the sun
3. Where was the marker when it was hardest to see?
on the side away from the sun
4. Was your prediction correct?
Yes
5. Use this model to explain how Earth's rotation affects our view of the sun and where the sun's light shines on Earth's surface. (Hint: Can you use the words 'night' and 'day' in your answer?)
Sunlight only reaches half Earth, on the side facing the sun, so one side of Earth is always in darkness. Because Earth rotates, we move from being in the light facing the sun to the dark side facing away from the sun. This is how night and day happen.
6. How often does night occur in each rotation?
Once
7. How often does day occur in each rotation?
Once