



SCIENCE ESSENTIALS...

AIR & WATER

BEFORE YOU SEE THE SHOW...

Before David visits your school with **Air & Water**, you might like to broadly introduce your students to the core concepts that will be presented during the show – as well as help them discover what they already know about these ideas.

Below you will find a **SHOW SUMMARY** as well as **QUESTIONS & DISCUSSION POINTS** to help you begin a conversation with your students...

SHOW SUMMARY

During Air & Water, David (a science communicator) will introduce you to two of the Earth's 'spheres' – the ATMOSPHERE and the HYDROSPHERE. He will use a variety of science demonstrations to explain how air (a core part of the atmosphere) and water (a core part of the hydrosphere) are both similar and different. He will also use air and water to demonstrate and explore an exciting range of science concepts.

QUESTIONS & DISCUSSION POINTS

1) THE EARTH'S SPHERES

- In environmental science, the Earth is considered as four interconnected 'spheres'. These include the atmosphere and the hydrosphere.
 - Describe what you think the atmosphere might be.
 - What general 'things' do you think might be found in the atmosphere?
 - Describe what you think the hydrosphere might be.
 - What general 'things' do you think might be found in the hydrosphere?
- The two remaining spheres are the lithosphere (or geosphere) and the biosphere.
 - Describe what you think the lithosphere might be.
 - What general 'things' do you think might be found in the lithosphere?
 - Describe what you think the biosphere might be.
 - What general 'things' do you think might be found in the biosphere?
- There is a fifth 'sphere' that is sometimes considered. This overlaps with the other spheres and is called the cryosphere.
 - Describe what you think the cryosphere might be.
 - What general 'things' do you think might be found in the cryosphere?



2) AIR

- *What is air?*
 - *What gases can be found in air?*
 - *What are some uses for these gases?*
- *Why is air important for life?*
- *How can air be polluted?*
 - *What kind of pollutants can be found in air?*
- *Can air be squashed?*
- *What do you want to know about air?*

2) WATER

- *What is water?*
 - *What are some uses for water?*
- *What colour is water?*
- *What does pure water taste and smell like?*
- *Why is water important for life?*
- *How can water be polluted?*
 - *What kind of pollutants can be found in water?*
- *Can water be squashed?*
- *What do you want to know about water?*

3) AIR & WATER

- *How are air and water similar?*
- *How are air and water different?*

4) SCIENCE COMMUNICATION

- *The job title of the person who will be performing your show is 'Science Communicator'.*
 - *What do you think a Science Communicator might do as part of their job?*



SCIENCE ESSENTIALS: AIR & WATER
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