

**File name:** VR\_1.2T\_LP1\_EarthScience\_Science\_11

**Topic:** The Atmosphere and weather

**Keywords:** atmosphere, weather, climate

**Suggested grade level:** Grade 11

**Estimated activity time:** 15 min

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## Earth Science – Science 11

### The Atmosphere and the weather it creates and climate change

**VR 360<sup>0</sup> exploration:** 360 VR Hyperlapse to space

[https://www.youtube.com/watch?v=PsSvqvK\\_3Zo](https://www.youtube.com/watch?v=PsSvqvK_3Zo)

#### **General Introduction:**

Doing a VR 360<sup>0</sup> exploration/expedition is like going on a vacation or trip. You have to plan e.g. your destinations, places to eat, relax, and meet friends and family. It means identifying your objectives.

#### **For teachers:**

In this section, you will see a modified planning and preparation arranged into three steps. The steps are our suggestions. We hope they will help you maximize the learning opportunities a VR 360<sup>0</sup> exploration/expedition can potentially offer.

Three steps:

- 1) Pre-exploration: Preview the playlist exploration yourself. By doing this, you are identifying possible questions and activities that might enrich students' VR experience.
- 2) During exploration: Provide guide or key questions or ask the students to formulate new questions about the playlist and encourage students to refer to other resources (e.g., YouTube videos, articles, etc.) to connect and enrich the playlist.
- 3) Post-exploration: Follow-up on the new questions and wonders students have identified. These questions might lead to an interdisciplinary inquiry project, blog posts or short video clips to link with the original unit or chapter coverage.

**Description:**

In this 15-minute exploration activity, you'll see a 360° panorama of a Hyperlapse to space.

“View the world like never before. A Fusion 360 was sent into space over Great Britain. This horizon-locked time lapse allows you to experience flying to the edge of space in a completely novel way. Unparalleled footage from the world leaders in Near Space flight. Recommended viewing with Oculus Rift, HTC Vive or Google Cardboard for the ultimate immersive viewing experience.”

sentintospace Published on Sep 14, 2018

**Objective:**

The core learning outcome of this playlist is to enrich students' understanding about the atmosphere and the dynamic elements of weather and climate.

However, unlike a regular 2D video, this VR provides a 360° panorama, which allows your students to focus on different points of interest that might vary from student to student. So, take time to explore the playlist using different angles and positions.



360 VR Hyperlapse to space - Gopro Fusion

**Suggested Guide:**

**1) Pre-exploration:**

Review how scientists define space, atmosphere or outer space:

<https://www.space.com/17683-earth-atmosphere.html>

**2) During exploration:**

What key questions could pique students' interest as they watch this playlist?

As well, ask them to think of interesting questions they want to answer as they watch the playlist. Let them discuss these questions and their possible answers.

They can do this by groups of two or three.

With limited number of Google cardboards, let students work in pairs. Let them take turn to watch the playlist and do a Q & A. For example, Student 1 will describe to student 2 what he/she is seeing right now. Student 2 will explain the playlist, to Student 1 and each student will take turns doing Q & A.

**3) Post-exploration:**

Give time for the pair/class to think about the questions and answers they have generated after watching the playlist.

Then invite them to watch the link below. With the playlist, let them express their understanding, reactions into any interdisciplinary inquiry projects, blog posts, short video clips, etc.

Reveal Earth's Atmosphere | National Geographic:

<https://www.youtube.com/watch?v=1YAOT92wuD8>

**References:**

[https://edu.google.com/products/vr-ar/expeditions/?modal\\_active=none](https://edu.google.com/products/vr-ar/expeditions/?modal_active=none)

[https://www.youtube.com/watch?v=PsSvqvK\\_3Zo](https://www.youtube.com/watch?v=PsSvqvK_3Zo)

<https://www.space.com/17683-earth-atmosphere.html>

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