principia SPACE DIARY

ACTIVITY 3.3
LOOKING AT THE EARTH FROM SPACE

From Chapter 3 of the Principia Space Diary
http://principiaspacediary.org/activities/looking-at-the-earth-from-space

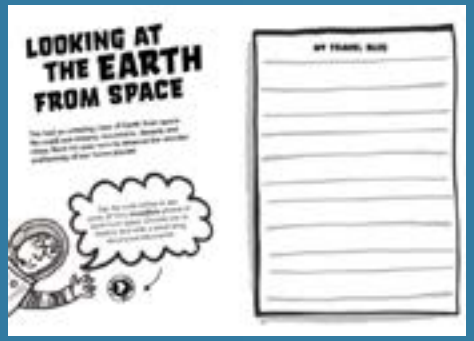
LEARNING LEVEL

KS1, KS2, P1-5

CURRICULUM LINKS & DIFFERENTIATION IDEAS

View detailed curriculum links for England, Scotland, Northern Ireland and Wales, plus differentiation ideas for your region and year level.

principiaspacediary.org/curriculum-planner/



Background to this Activity

While Tim Peake was aboard the ISS he was able to see Earth in a way that most people never get to. He witnessed all kinds of wonders, like Earth's atmosphere, the aurora borealis in European winter and the summer dust storms in Africa. He saw the clouds from above and watched the sunlight over the curvature of the Earth.

On the base of the ISS is the Urthecast camera broadcasting live, high definition video from the ISS. It sees the sun rise and set 16 times a day!

Running the Activity

This creative writing exercise asks your Space Apprentices to choose a place on Earth that they have never been to, and imagine what it might be like to visit.

They will use a selection of images that Tim Peake took while on board the ISS as visual writing prompts. You can also use the Zapcode to view a wonderful selection of images from Tim. For instructions on how to use the Zap code, see http://principiaspacediary.org/using-zap-codes-to-strengthen-digital-literacy/

What do students notice about the landscape - colours, weather, seasons, population and so on? What physical features are visible that are different to home? Can they describe this place in a travel blog?

Your Space Apprentices might be excited about being able to see what Tim and his fellow astronauts could see! Just keep in mind that if the ISS is in a 'night' timezone, the feed will be black. You can check where the ISS is by using the ISS Tracker: http://www.isstracker.com/.

This clip of time lapse footage taken from the ISS at night shows clouds, thunderstorms and auroras: http://www.esa.int/spaceinvideos/Videos/2016/04/Powerful_thunderstorms_off_the_coast_of_Sumatra

Also check out Tim's Flickr page where he posted his favourite photos of Earth: https://www.flickr.com/photos/timpeake/ (If the images have a NASA/ESA credit you are free to use them as long as you credit NASA/ESA.)

Questions for the Class

- What would be the biggest differences between how school looks from our perspective and from space?
- Where or what would you like to take a picture of from space?
- What kinds of weather activities could you watch from the ISS? What kind of weather systems could you only see from space?
- How would Earth look from the ISS during the day? What about at night? How might sunrise or sunset look?
- How do you think the view from space has changed over the years? Can you see differences in the amount of light, the scale of cities, the size of oceans and forests?

Extensions & Digital Resources

ZAP! Students can use the Zappar app to access a wonderful selection of images of Earth that Tim Peake took from space. See Zappar instructions at the link below and note that the mobile/tablet will need to be connected to the internet: http://principiaspacediary.org/using-zap-codes-to-strengthen-digital-literacy/