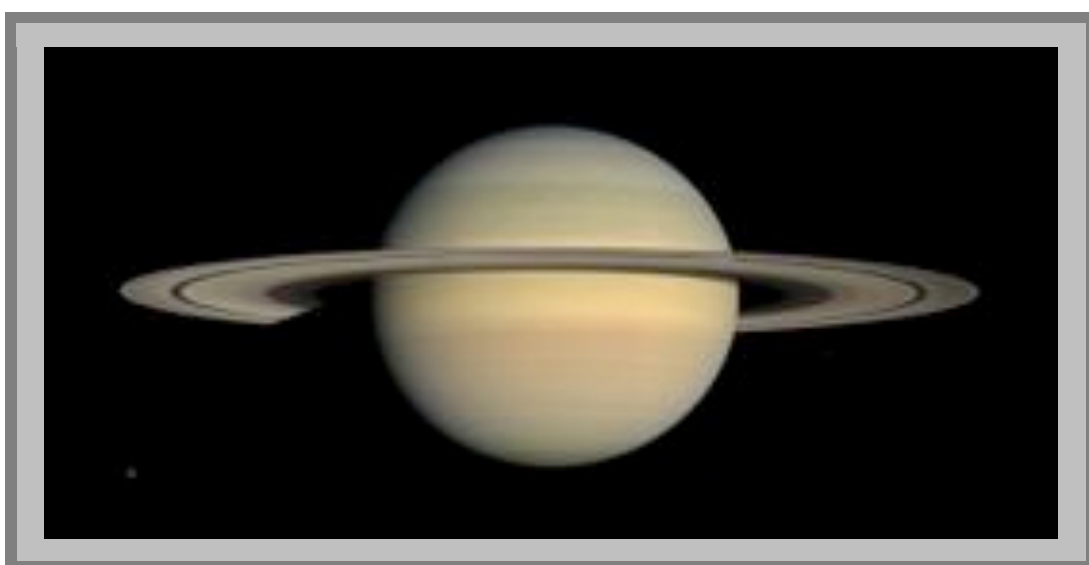


If the Earth had rings ...

Language level:	Intermediate; Upper intermediate (B1; B2)
Learner type:	Young learners; Teens; Adults; CLIL
Time:	45 minutes
Activity:	Reading; Speaking
Topic:	The Solar System
Language:	Second conditional; Hypothetical would
Materials:	Video; Slideshow



Preparation, materials and equipment

1. For this activity, you will need a YouTube video clip titled: ***The Rings of Earth***. To access the video, click on the following link:

<http://bit.ly/h79LFU>

2. You will also need an accompanying PDF slideshow which you can download from Lessonstream at:

<http://bit.ly/h79LFU>

Decide how you are going to display the clip and slideshow in class.
Possibilities include:

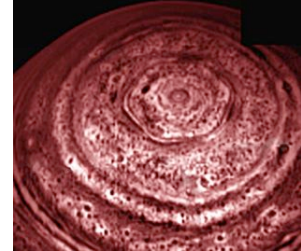
- Laptop or desktop (good for small groups)
- Computer, projector + screen
- iPhone or other mobile device (good for one-to-ones/small groups)

Don't forget the loudspeakers

If you don't have Internet access in class, you could download or 'capture' the video from YouTube. Use **www.savevid.com** or a similar site. Note, however, that in doing so, you will be breaching YouTube's Terms of Use.

Lesson plan

1. Show students the first slide and ask them if they can identify the planet.



In doing this, elicit the names of all the planets in the solar system and write them on the board:

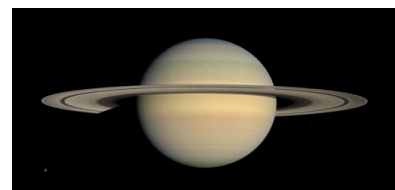
<i>Earth</i>	<i>Jupiter</i>	<i>Mars</i>	<i>Mercury</i>
<i>Neptune</i>	<i>Saturn</i>	<i>Uranus</i>	<i>Venus</i>

(NB Pluto was relegated to the status of 'Dwarf Planet' in 2006 by the International Astronomical Union)

2. Read out the following information and see if students can identify the mystery planet. Ask students not to shout out their answers – you could ask them to confer in pairs/small groups and write down their answers.

- *It is named after a Roman god.*
- *It is a gas giant.*
- *It has 61 known moons.*
- *Its biggest moon is called Titan.*
- *It was visited by the Voyager 1 spacecraft in 1980, and by Voyager 2 in 1981.*
- *It is the 6th planet from the sun.*
- *It is the second largest planet in the Solar System.*

3. Once students have identified the planet as Saturn, ask them what else they know about the planet. They will no doubt tell you that it has a ring system. Show the next slide.



4. Show students the text on slide 3. Ask them to copy it and attempt to fill in the blanks. Tell them that for this, they will have to think! Allow students access to bilingual dictionaries if possible.

Saturn's rings

Saturn is probably best known for its system of rings which extend from 6,630 _____(a) to 120,700 _____(a) above the planet's _____(b). They average approximately _____(c) meters in thickness and consist mostly of _____(d) particles with a smaller amount of rocky debris and dust.

There are two main theories regarding the origin of Saturn's rings: One theory is that the rings are the remains of a destroyed _____(e). The second theory is that the rings are left over from the original nebular material from which Saturn formed.

5. Let students share and compare ideas before showing them the answers on the next slide.

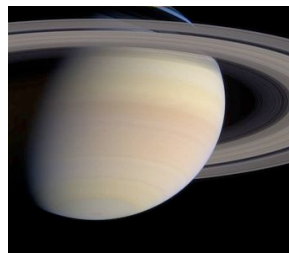
- (a) *Kilometers*
- (b) *Equator*
- (c) *20*
- (d) *ice*
- (e) *moon*

6. Show students slide 5 and ask the following question:

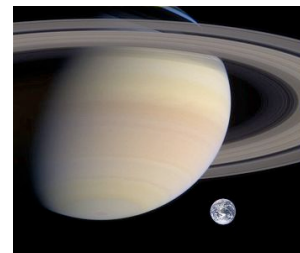
"If we could see our own planet beside Saturn on this photograph, how big would it be?"

Invite students to cut out circles from pieces of paper, initial them and stick them on the wall beside the image of saturn (if you are using a projector and screen).

7. Show slide 6. The Earth will now pop into view and you can find out who came closest in guessing the relative size of the Earth.



Slide 5



Slide 6

8. Dictate the following questions:

- *How would the Earth look if it had a ring system like Saturn?*
- *What would the rings look like to us?*
- *Would they appear across the sky from East to West or from North to South?*
- *How would they appear near the equator?*
- *How would they appear far from the equator?*
- *How would they appear at night?*

9. Let students compare what they have written before showing them the questions on slide 7.

10. Ask students to work in pairs or small groups to consider and write answers to these questions. Tell them that for some questions, they may want to make quick sketches and for others, they may want to make use of the following items of vocabulary:

- *"Aligned with"*
- *"Perpendicular to"*
- *"The horizon"*

While students answer the questions, circulate and make sure they understand and use the target language (*would*).

10. Let groups or pairs compare their answers.

11. Show the video clip: ***The rings of Earth***

Variation

Make use of the cities and places in the clip. For example, give out a list of the locations, ask students to find out where they are and mark them on a blank map before watching the video.