

	GIMNASIO SABIO CALDAS (IED) Nuestra escuela: una opción para la vida PLAN ESCOLAR NO PRESENCIAL GUÍAS INTEGRADAS	Código	PENP - 01
		Versión	001
		Fecha	12/04/2020
		Proceso	Gestión Académica

Docentes	Jorge Cadena, Jhon Cendales, Martha Aguirre.	Grado/Curso	Noveno
Correo electrónico Docentes de las áreas	jhon.cendales@sabiocaldas.edu.co jorge.cadena@sabiocaldas.edu.co patricia.aguirre@sabiocaldas.edu.co		
Áreas	GRUPO 2 (Español, Ciencias Sociales e Inglés)		
Eje Temático	The Earth.		
Fecha de envío	Junio 1	Fecha límite para el desarrollo	Junio 5
Tiempo de ejecución de la guía	5 hours aprox.		
NOMBRE DE LA GUÍA	The end of life on Earth?		
Contextualización (REFERENTES TEÓRICOS, RECURSOS DE TRABAJO...)			



The end of life on Earth?

It weighed about 10,000 tons, entered the atmosphere at a speed of 64,000km/h and exploded over a city with a blast of 500 kilotons. But on 15 February 2013, we were lucky. The meteorite that showered pieces of rock over Chelyabinsk, Russia, was relatively small, at only about 17 meters wide. Although many people were injured by falling glass, the damage was nothing compared to what had happened in Siberia nearly one hundred years ago. Another relatively small object (approximately 50 meters in diameter) exploded in mid-air over a forest

region, flattening about 80 million trees. If it had exploded over a city such as Moscow or London, millions of people would have been killed.

By a strange coincidence, the same day that the meteorite terrified the people of Chelyabinsk, another 50m-wide asteroid passed relatively close to Earth. Scientists were expecting that visit and know that the asteroid will return to fly close by us in 2046, but the Russian meteorite earlier in the day had been too small for anyone to spot.

Most scientists agree that comets and asteroids pose the biggest natural threat to human existence. It was probably a large asteroid or comet colliding with Earth which wiped out the dinosaurs about 65 million years ago. An enormous object, 10 to 16km in diameter, struck the Yucatan region of Mexico with the force of 100 megatons. That is the equivalent of one Hiroshima bomb for every person alive on Earth today.

Many scientists, including the late Stephen Hawking, say that any comet or asteroid greater than 20km in diameter that hits Earth will result in the complete destruction of complex life, including all animals and most plants. As we have seen, even a much smaller asteroid can cause great damage.

The Earth has been kept safe for the last 65 million years by good fortune and the massive gravitational field of the planet Jupiter. Our cosmic guardian, with its stable circular orbit far from the sun, sweeps up and scatters away most of the dangerous comets and asteroids which might cross Earth's orbit. After the Chelyabinsk meteorite, scientists are now monitoring potential hazards even more carefully but, as far as they know, there is no danger in the foreseeable future.

Types of space rocks

Comet – a ball of rock and ice that sends out a tail of gas and dust behind it. Bright comets only appear in our visible night sky about once every ten years.

Asteroid – a rock a few feet to several kms in diameter. Unlike comets, asteroids have no tail. Most are too small to cause any damage and burn up in the atmosphere. They appear to us as 'shooting stars'.

Meteoroid – part of an asteroid or comet.

Meteorite – what a meteoroid is called when it hits Earth.

Descripción de las actividades

A. te invitamos a reflexionar sobre las siguientes preguntas de acuerdo con la lectura.

1. Could a meteorite collision really mean the end of life on Earth?
2. What happens when small meteorites collide with Earth?
3. How much damage a big one could do?
4. ¿Cuáles son las consecuencias del choque de un meteorito con una capa de hielo continental?: ¿el clima del planeta puede ser modificado? Argumenta tu respuesta.
5. ¿Es probable que la presencia de agua en la tierra haya sido aportada por cometas de hielo que han colisionado hace entre 3.800 y 4.000 millones de años, en el momento inicial de la formación del Sistema Solar? Argumenta tu respuesta.
6. Los meteoritos no se encuentran exclusivamente en la superficie de la Tierra. Existen meteoritos en las superficies de otros planetas. ¿Explica porque hay muy poca presencia de agua en Venus y Marte, mientras en la tierra hay mucha presencia de esta?
7. Elabora un mapa mental con las ideas principales del texto.
8. Escribe en un párrafo qué fue lo que más te impactó del artículo exponiendo tus razones y lo que piensas del tema.

Webgrafía/MATERIAL SUGERIDO O COMPLEMENTARIO PARA CONSULTA (OPCIONAL)

OPCIONAL

Enlaces de apoyo:

Learn English teens <https://learnenglishteens.britishcouncil.org/skills/reading/upper-intermediate-b2-reading/end-life-earth>

British council <https://learnenglishteens.britishcouncil.org/>

Criterios de Evaluación

ÀREA	SOCIALES		ESPAÑOL		INGLÈS	
CRITERIO	PENSAMIENTO SOCIAL: Analiza diversas perspectivas, argumenta y desarrolla un pensamiento crítico para la formación sociocultural del estudiante.		INTERPRETACIÓN Y COMUNICACIÓN Identifica los elementos clave del texto atendiendo a su sentido e intención general.		DEVELOPMENT SOCIOLINGUISTIC COMPETENCE. Identify the different characteristics of the meteorite and to know the consequences could have the earth if felt a meteorite.	
ENTREGA	APROBADO	PENDIENTE	APROBADO	PENDIENTE	APROBADO	PRENDIENTE

