



ENGLISH WORKSHEET FOR 8TH GRADERS

UNIT 2: INFORMATION, COMMUNICATION AND TECHNOLOGY

I.- Read the following text.

Virtual Reality Knowledge Organiser

Key Vocabulary		What is Virtual Reality?
gyroscope	A device used to detect when a moving object has changed direction.	Virtual reality (VR), is an advanced technology that immerses you in a simulated , computer-generated environment. It works by using a specialised headset that you wear on your head. It allows you to explore virtual landscapes, interact with objects, and even engage with computer-generated characters. It's like stepping into a computer program and experiencing it first-hand. Have you ever wished that you could go into space or visit the Amazon rainforest? How about travelling back in time to Ancient Egypt? Through the use of complex and detailed computer-generated images (CGI), VR allows you to experience things that you may never otherwise be able to.
headset	A piece of equipment that fits over the head, covering the user's eyes. It contains audio and visual output devices and various sensors.	
immersive	Surrounded by an experience so that it seems real.	
reality	The state of existing or being real.	
sensor	A device that detects an input from the physical environment.	
simulation	A model or representation of a real world event or system.	
virtual	Created by computer technology to appear real.	

How Does Virtual Reality Work?



VR works by placing a small screen in front of your eyes. Stereoscopic lenses are used to make 2D images appear 3D. As you move your head, a built-in **gyroscope** detects and tracks your position and movements. The visual images are adjusted to give you a 360 degree view, just like you would have if you were looking around in the real world. Hand-held controllers, or even a full body suit, allow the VR equipment to track the movements of your hands or body. This means that you can interact with the VR world by walking around, touching things and even picking them up and throwing them.

What Do You Need to Access Virtual Reality?

To experience **virtual reality** for yourself, you will need:

- A VR **headset** to experience the **virtual** world.
- Built-in audio or an extra set of headphones to hear sounds, voices and music.
- VR hand controllers to interact with the **virtual** world.
- **Sensors** or a base station to track your position and movements.
- A computer or games console with a powerful graphics card and processor.



How to Use VR Safely

VR is great fun and can be educational too. Follow these safety tips to make sure that you stay safe when using it.

- Give yourself plenty of space when using VR. You don't want to trip over or bump into anything in the real world when you're in a **virtual** one.
- Stay seated when you can as this will stop you from hurting yourself.
- Don't wear the VR **headset** for too long. Limit yourself to 15 minutes at a time.
- Take plenty of breaks between VR sessions.
- Don't have the sound too loud.
- Always check with a trusted adult before using VR technology.



How Is Virtual Reality Used?

In education, VR is used so that learners can visit places that they would not otherwise be able to go to. They can visit landmarks around the world, go back in time or explore different ecosystems around the world.

The entertainment industry uses VR to make **immersive** video games, films and simulator rides.

VR can also be used to train people for dangerous or difficult jobs. Soldiers and police officers can use **simulations** of events to plan how to deal with difficult situations. Doctors can practice carrying out operations using VR before they do the same thing on real patients.



II.- Answer TRUE OR FALSE.

- 1) -----A gyroscope in a VR headset helps detect changes in a user's heart rate.
- 2) -----The term "immersive" describes an experience that feels like the real world.
- 3) -----Virtual reality creates environments that are based on real, physical locations.
- 4) -----VR headsets use stereoscopic lenses to make two-dimensional images appear three-dimensional.
- 5) -----In VR, your head movements are tracked by a sensor, but your hand movements cannot be tracked.
- 6) -----Virtual reality is only used for entertainment purposes like video games and movies.
- 7) -----Doctors can use VR simulations to practice surgical procedures before operating on actual patients.

III.- BASED ON THE TEXT, ANSWER THE FOLLOWING QUESTIONS.

- 1.-What is the primary piece of equipment used to experience virtual reality?
- 2.-What is the function of a gyroscope in a VR headset, as described in the text?
- 3.-Name three different industries or areas where the text mentions virtual reality being used.
- 4.-How do stereoscopic lenses contribute to the virtual reality experience, according to the text?
- 5.-What does the term "virtual" mean in the context of virtual reality?

III.- Choose 1 of these 3 questions, Reflect and answer with your classmate. (spanish)

- 1) Considering the different ways VR is used in education, entertainment, and training, which application do you find most interesting or impactful and why? (Considerando las diferentes formas en que la realidad virtual se utiliza en la educación, el entretenimiento y el entrenamiento, ¿qué aplicación te parece más interesante o impactante y por qué?)
- 2) The text explains that VR immerses you in a simulated environment. Can you think of any potential benefits or drawbacks of feeling so deeply connected to a virtual world? (El texto explica que la realidad virtual te sumerge en un entorno simulado. ¿Puedes pensar en algún beneficio o inconveniente potencial de sentirte tan profundamente conectado con un mundo virtual?)
- 3) Imagine you could design a VR experience for learning. What subject or topic would you choose, and how would you use the capabilities of VR to make the learning experience engaging and effective?(Imagina que pudieras diseñar una experiencia de realidad virtual para el aprendizaje. ¿Qué tema o asignatura elegirías y cómo utilizarías las capacidades de la realidad virtual para que la experiencia de aprendizaje fuera atractiva y efectiva?)

Answer:
