WEF Grant Report- Class VR
Virtual Reality

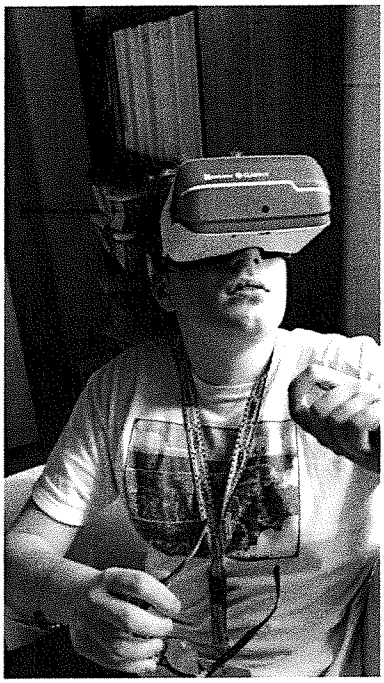
Our class has really enjoyed using the Class VR system and are really learning the systems capabilities. At first we were checking all the cool visual experiences like hot air balloon rides, roller coasters, squirrel suits and one of the biggest hits was windsurfing.

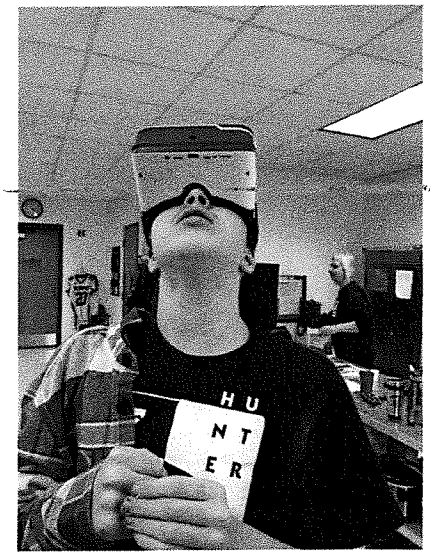
The Class VR system comes loaded with some wonderful lessons that are becoming increasingly easier to use. At first we were bumbling our way through, but Mrs. Prado discovered how easy it is to load lessons with a quick QR scan.

The most recent lesson was about landforms and the Class VR system allowed our students to be on an iceberg, walk through the jungle, look over the Cliffs of Dover. This system can really take our students out of the classroom and drop them almost any place in the world, we can even drop them on the moon.

We are still working through some of the kinks with the 360 camera, but have found some neat features. The plan is to create some Wimberley community based lessons in the near future with the camera.

Below are some photos of the system in action:

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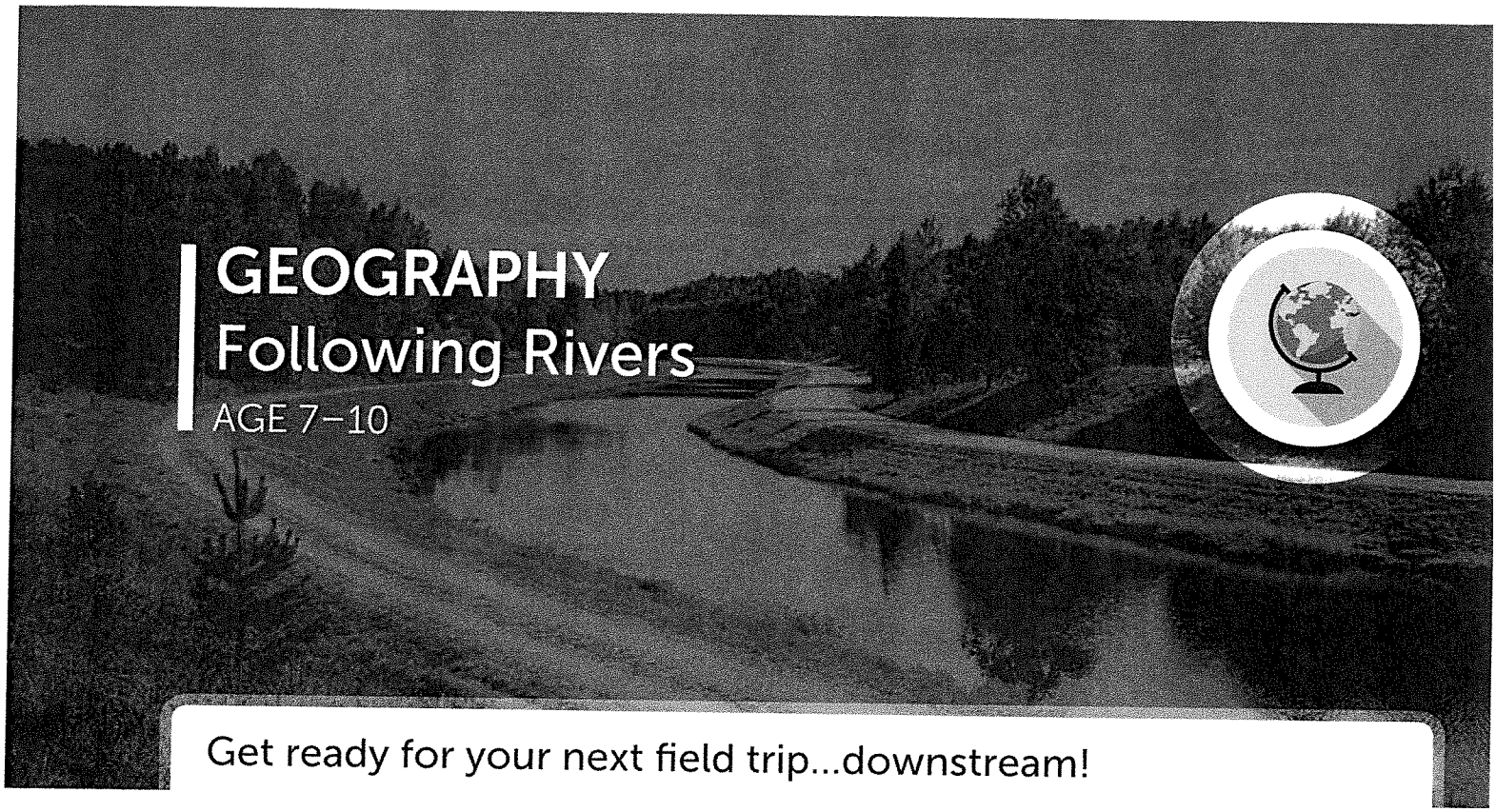


GEOGRAPHY
Following Rivers
AGE 7–10

Get ready for your next field trip...downstream!

Learning Areas

- Learning about the key features of a river
- Understanding and reading maps

Before Your Trip to the river:

What does a river look like? Discuss in groups their own mental image of a river to see what similarities and differences they find. How are they formed? How can different rivers vary? How are they different from other bodies of water?

Immersive Experience

Allow students time to explore the scene on their own first, making sure that they are in a safe position. After a minute or so of independent exploration, turn the headset screens off using your teacher dashboard to bring students back into the room. Collect student ideas about points of note, then dive back in, making sure you draw attention to:

- The speed at which each section of river appears to be flowing.
- The width of the river.

Rivers Collection

Look for these icons

Subject	Area of Study
GEOGRAPHY	RIVERS
English (Reading)	Reading for meaning
English (Writing)	Explanation texts
Music	Composers
Science	The water cycle

After the ClassVR Session

What different parts of the river did you see? How were these formed? Discuss why rivers are important. What did the aerial views show? Where in the world do you think these rivers were?

Follow-Up Activities

- Create a giant display of the course of the river, labelling key features: source, meander, oxbow lake, waterfall, delta, mouth, upper course, middle course, lower course.
- Fill a large tough tray with sand and place a solid object under one edge so that it sits at an angle. Pour a small amount of water in at the very top to see how the course of a river is formed. Repeat this with some stones in the tray to show how the course of a river can be changed. Students can also experiment with creating oxbow lakes.
- Look at a range of maps to see how different rivers are shown. Use the aerial views in ClassVR as well as the other experiences to help understand what each feature of the river might look like on a map.

Links Across the Curriculum

ENGLISH (READING) – *Reading for Meaning*

Read The Wind in the Willows by Kenneth Grahame, giving the students the opportunity to read aloud and ask questions freely. Use VR experiences to get students thinking about where different parts of the story could have taken place and link to science by considering which creatures would live in which sections of the river.

ENGLISH (WRITING) – *Explanation Texts*

Read a range of explanation texts to pick out key features and understand the structure they usually take. Use Science and Geography learning to understand how waterfalls are formed. Combine these skills to write an explanation of how waterfalls are formed using all the key features of this text genre.

MUSIC – *Composers*

Listen carefully to La Source by Armand Marsick during VR experiences. Which stage of the river do you think matches the feel of the music? Why? How can a piece of music capture movement, mood and light? Select another part of the river and compose a short improvisation to match it.

SCIENCE – *Water Cycle*

Discuss why the source of a river is usually on a mountain or area of high ground. Review prior knowledge about condensation and evaporation and use this to help construct a collage of the water cycle. Review their understanding by getting them to explain which feature of the river is shown.

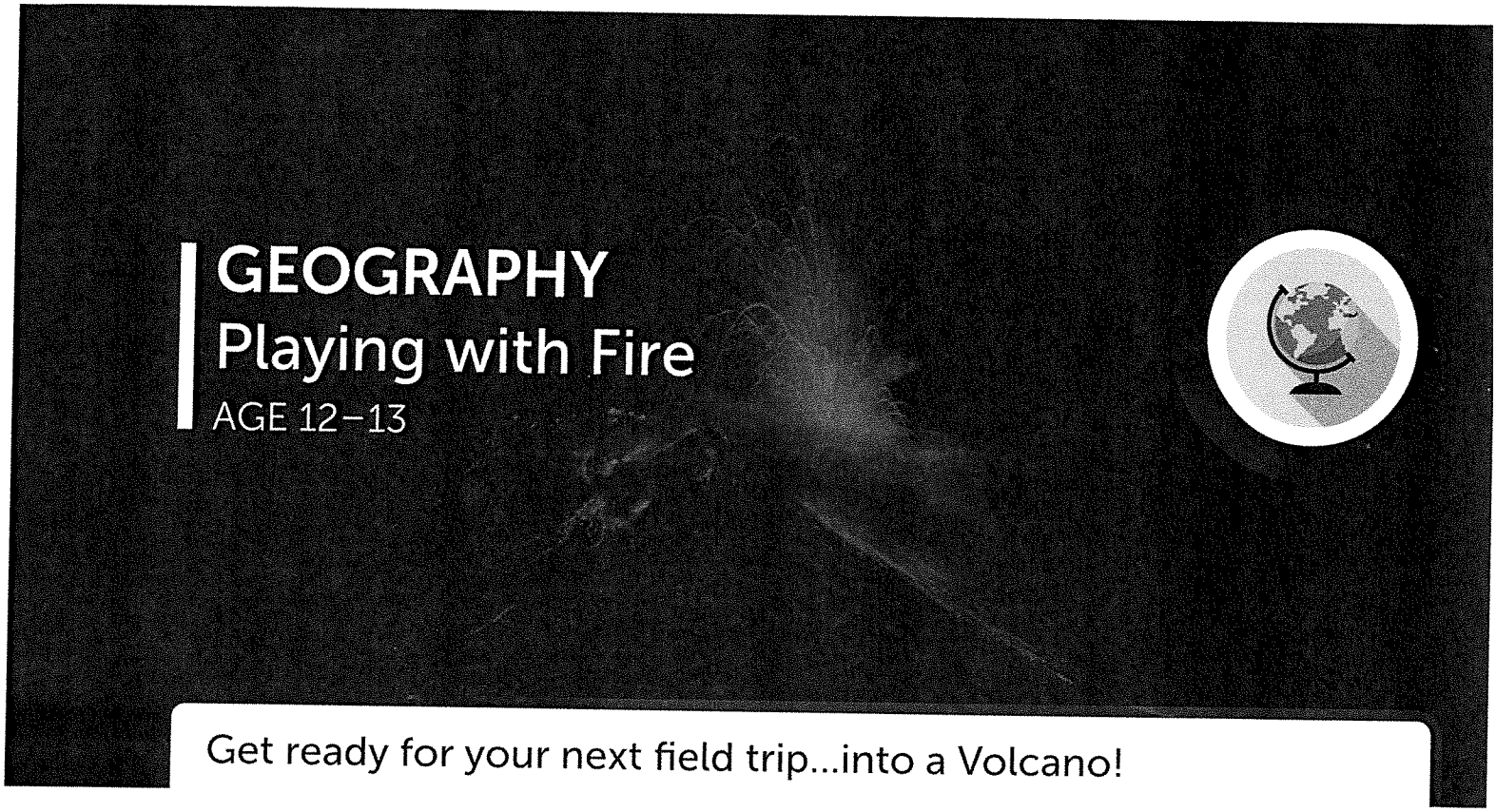
ART – *Watercolour*

Evaluate the effects created in watercolour paintings an experiment with a range of different colours. Since these colours can all be diluted, creating a muted effect, it allows students to be bolder in their choices i.e. not just use blue for water but instead consider all the hues reflected on its surface.

PHYSICAL EDUCATION – *Dance*

Use student understanding of a river's course to inspire a dance sequence. Ensuring they incorporate turns, different levels and varying speeds, students can express the journey of a river from source to mouth in their choreography

GEOGRAPHY
Playing with Fire
AGE 12–13



Get ready for your next field trip...into a Volcano!

Learning Areas

- Understanding physical processes, including plate tectonics and rock formation
- Understanding how human and physical processes influence landforms, environments and the climate
- Using globes, maps and atlases with confidence

Before Your Trip to a Volcano:

Establish what is already known about volcanoes. Note down questions to 'Ask the Expert' in a booklet which they will keep until the end of the topic and then see how many they can answer. What is the difference between magma and lava? Where does it come from?

Immersive Experience

Allow students time to explore the scene on their own first. After a minute or so of independent exploration, turn the headset screens off using your teacher dashboard to bring students back into the room. Collect student ideas about points of note, then dive back in, making sure you draw attention to:

- The fact that the volcano is obviously inactive (this is one that last erupted 4000 years ago, located near Reykjavik in Iceland)!
- Signs of past volcanic activity, including the shape of the magma chamber and the rock types within it.

Physical Geography Collection

Look for this icon

Subject	Area of Study
GEOGRAPHY	VOLCANOES
Science	Earth's structure; rock cycle
English Language	Documentary; explanation
Mathematics	Problem solving

After the ClassVR Session

Discuss experience with a partner. Did anything surprise you? What have you learned from the experience? What do you now want to find out more about? Add any other questions to 'Ask the Expert' booklet.

Follow-Up Activities

- Locate the world's active volcanoes and create a hyperlinked map with information on the most well-known of these. These could perhaps link to news stories about recent volcanic activity. What do they notice about the location of active volcanoes? Why might this be?
- Develop understanding of the Earth's structure (see Science links) to see what leads to a volcanic eruption. Create a model of the cross-section of a volcano and label the different features, explaining the purpose of each.
- Use a sheet of plastic with a hole in it and squeeze melted chocolate out through the top to represent lava. Show that, as it cools, it hardens into solid rock. What would happen after many eruptions over time? What would happen if all of this happened beneath the sea? Use this to spark discussion of volcanic islands or high islands e.g. Galapagos archipelago.

Links Across the Curriculum

SCIENCE – *Earth's Structure*

Explore the structure of the Earth, comparing the thickness of each of its layers as well as their chemical composition. Create a 3D model using different coloured modelling clay to represent the different layers. Label the model itself or annotate a photo to explain the key features of each layer.

SCIENCE – *The Rock Cycle*

Link to learning of the Earth's structure to understand why rock particles would become molten rock (magma) as they get closer to the Earth's core. The ClassVR experience will then help show how extrusive igneous rocks are formed. Use three different colours of grated chocolate to represent different stages of the rock cycle.

ENGLISH LANGUAGE – *Summarising Facts and Scripting a Documentary*

Record and then write up a documentary explaining how volcanoes form, why they erupt and where they can be found. Watch David Attenborough's documentary on Icelandic volcanoes, filmed from Eldfell Heimaey, for inspiration and technical vocabulary.

MATHEMATICS – *Using Data to Solve Real-Life Mathematical Problems*

Find information on the five worst volcanic eruptions and gather relevant data e.g. land area damaged, number of deaths, volume of lava etc. to argue which was the most destructive. Use a range of visual representations of these numbers to justify your position.

COMPUTING – *Using Digital Media*

Use a range of digital media to create a documentary which uses a range of videos, images and text to explain how volcanoes form, why they erupt and where they can be found.

ART – *Comparing Artists*

Compare the works of J.M.W. Turner and Andy Warhol. How have these great but very different artists captured the feel of a volcanic eruption? Which is more dramatic? Use one of these pieces as inspiration for your own 3D piece.