



Sandbox Examples

So one of the key curriculum areas we use Sandbox AR within was when we studied the polar regions and polar climate. One of our key texts in English is to do with Ernest Shackleton and his journey on the Endurance. So we allowed the children to develop the learning, gain an understanding of Shackleton's journey through the text that we used in English and through the resources on LGfL. And then we enabled the children to then take the Sandbox AR app and build their own polar region. And the idea behind this was to try to feel conditions. It's one thing to look at conditions that Shackleton had to endure but to actually try and be immersed within those conditions and feel as if the snow is touching you on the cheek and hear the sounds of the wind and walking through the huge crevasse on an endless trek really brought that learning to life for the children. Some of the resources that we use from LGfL which were invaluable in the children's learning was the use of video and text embedded within the diary and journal entries and the timelines and the short snippets of audio enabled the children to be more immersed and understanding of the hardships that Shackleton and his crew had to face.

Which then linked nicely to their thought process when building their own polar region within the Sandbox AR. Because they could think about the conditions, the animals and what sort of hardships that they would potentially face while navigating this difficult climate.

One of the other key resources was the webinar and Zoom meetings that we attended through LGfL with a team of scientists who were trekking through the Antarctic in real time. So they were documenting their journey and their science experiments that they were conducting, which gave us another sort of facet of understanding with regards to what it was like to live and trek in that harsh, hostile climate. I think this was further embedded by the fact that the pupils were also able to be involved in designing a logo to attach to the flag, which also was planted as part of this expedition. The way we've used Sandbox AR in coding club (that I run after school) we sort of tied a little bit to Scratch programming, created platforming games using Scratch and then we had a go at sort of creating our own immersive platform AR game through the Sandbox app. So we put obstacles to navigate through, we created mazes, things to try and climb over, so someone tried to create a virtual "hide and seek" game through that app.

In class we were like watching videos of what real polar explorers dealing with in bad weather or like blizzards because they couldn't go out of their tent if it was really bad.

So in Sandbox we've been creating different polar situations where we've been in crevasses, we've been making tents and one of us has been working on an Endurance model and I think it's a really good learning tool because you can see it in front of your own eyes and then you really understand it a lot more.

In Sandbox I built a tent which had shelter by little snow mounds and inside the tent I had different things that the polar explorers might need. I thought carefully about what I put on the outside of the tent to make it realistic and I put snow hills and penguins (because it's their natural habitat) instead of polar bears because polar bears don't live in Antarctica.



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Augmented reality helps me show and produce my learning because once I've seen it, I understand it a lot more than I probably would have if I had been taught it just by pen and paper and what someone has told me because once you sort of see it with your own eyes, you sort of know what it's like. And you think wow, that's what explorers have to do and it's quite amazing really.

The idea of Sandbox AR being immersive has been further emboldened by the use of the Now Press Play kit. So not only do we have that visual immersive experience, we also have that audio experience and this can be ranged from sound effects to do with the weather, it can be theme of music that might relate to the topic, it can even be a style of classical music that helps to engage and immerse that learner to feel like they are not only seeing what's in front of them but hearing the environment around them as well.

I think the difference that sound makes is that it is much more immersive and although sound or songs wouldn't be playing if you're stuck in a crevasse, I think it really sets the tone of the emotions you would feel like claustrophobic, or scared, or maybe worried and I think it really sets the tone.

It makes it much more of an immersive reality. And augmented reality is, I think it's a really good way of learning and I think it should be introduced in classrooms across the country.