Safety & Wellbeing in VR Education

The health, safety, and well-being of students must always be the top priority when using Virtual Reality (VR) in the classroom. While VR offers immersive and powerful educational opportunities, it also introduces new considerations—both physical and emotional. This guide outlines key safety practices to help ensure a positive, inclusive, and safe experience for all learners.

Participation is Always Optional

Students should never feel pressured to participate in VR activities. Some may be unfamiliar with immersive technology, feel discomfort, or have sensory sensitivities. Offering students the choice to opt in (or out) ensures they remain in control of their learning experience. When VR is voluntary, students can approach it at their own pace, reducing anxiety and promoting confidence.

Physical Space & Safe Setup

To ensure safe movement during full VR experiences, each student should have at least 2.4 square meters of clear floor space. Remove tripping hazards such as chairs, bags, and cables, and consider using floor markers or mats to define boundaries.

Students not using the headset must be reminded that VR users cannot see or hear them clearly. They should stay outside of active VR zones to avoid accidental collisions or distractions. Teachers should reinforce respectful behavior around headset users and designate a buffer zone for safety.

If students are working in pairs (e.g., collecting answers on the worksheets), they should maintain a minimum safe distance from active VR participants and only interact when instructed.

Session Duration & Breaks

To prevent physical fatigue, eye strain, or motion sickness, VR sessions should be kept brief—especially for younger students or those new to the technology. For most educational activities, 10–20 minutes per session is appropriate, followed by a short break.

Incorporate scheduled breaks where students can remove the headset, stretch, and reset before continuing. Frequent breaks not only improve comfort but also help with focus and cognitive processing.

Emotional Wellbeing & Monitoring

Some students may find immersive environments overwhelming or emotionally intense, especially during their first VR experiences. Teachers should:

- Check in with students before, during, and after VR use.
- Watch for signs of discomfort, disorientation, or stress.
- Provide reassurance, adjust headset fit, or allow students to stop at any time.
- Normalize opting out or taking a break without drawing attention.

A strong classroom culture of support and autonomy helps ensure that students feel safe emotionally as well as physically.

Guidelines for Non-VR Participants

During VR sessions, students not using headsets still play a crucial role in maintaining a safe learning environment. Teachers should clearly communicate these expectations:

- Do not enter the VR activity zone unless instructed.
- Remain at a respectful distance (at least 2.5 meters from VR users).
- Avoid startling or distracting students wearing headsets.
- Stay engaged in parallel tasks (e.g., completing worksheets, data recording, or observing).

This not only maintains a smooth flow for the lesson but models responsible and respectful behavior in shared learning spaces.

In Application Safety Measures

The Meta Quest suit of headsets comes with standard boundary safety measures that allow a room to have a safety chaperone created around it to prevent users from moving into objects; this can be set up from the virtual classroom main settings. If students move outside this area the world passthrough is activated to stop students colliding with objects.

The Meta Quest suite of headsets include built-in safety features designed to protect students during immersive experiences. Using Meta's Guardian boundary system, a virtual safety perimeter—often referred to as a chaperone—can be set up within the room. This defines a safe play area, helping to prevent students from accidentally walking into furniture, walls, or other obstacles.

This boundary can be configured through the Virtual Classroom's main settings menu before a session begins. Once established, the headset actively monitors student movement. If a student approaches or crosses the boundary, the world passthrough feature is automatically triggered, allowing them to see their real environment through the headset. This immediate visual shift helps prevent physical collisions and reinforces spatial awareness, ensuring a safer experience for all users.

Every fully immersive VR application developed by Rayner Digital Labs includes an extended in-app safety layer that works alongside the default Meta Quest Guardian boundary system. This proprietary safety feature is directly linked to the virtual learning zone within the application—clearly defined in the immersive environment to guide student movement. If a student steps outside the designated VR learning area, a safety prompt is immediately activated, displaying a visual warning sign within the headset. This alert instructs the student to return to the safe zone, helping them reorient without removing the headset or interrupting the learning experience.

Development with Safety First

Rayner Digital Labs is committed to delivering the safest and most comfortable VR experience for students, enabling schools to fully embrace the benefits of immersive learning.

Our development standards are built on principles of safety and simplicity: all learning is brought to the student, rather than requiring the student to navigate to it. Every experience takes place within a clearly defined safe learning area, with no locomotion or teleportation mechanics included in any application.

This grounded, in-place design approach reduces the risk of motion sickness and eliminates unnecessary movement controls, helping students stay focused on learning the content—not figuring out how to navigate the virtual space. It ensures that every VR experience remains intuitive, accessible, and aligned with educational goals.

A Safe VR Experience Starts with You

VR can be a powerful and transformative educational tool when implemented thoughtfully and safely. By establishing clear safety zones, respecting student choice, managing session lengths, and actively supporting both physical and emotional wellbeing, teachers can create an inclusive, engaging, and low-risk learning environment. With the right planning and safeguards in place, students can confidently explore, create, and learn through immersive technology—while schools maintain the highest standards of care, accessibility, and classroom readiness.