

TECH TALK FOR PRINCIPALS

ScopelT Education – Term 3, 2019

Edition #12



Minecraft vs Minecraft: Education Edition

In this edition of *Tech Talk for Principals* we explore the popularity of Minecraft and how we can utilise the online platform in delivering the digital technologies curriculum.

Released in 2011, Minecraft is a video game that has become an online revolution for children who use the tool to create worlds and challenges.

Players build with different blocks in a 3D generated world and complete activities including exploration,

resource gathering, crafting and combat.

The large range of gameplay choices within Minecraft is a part of why it is so popular and appealing to such a wide audience of children and adults.

Minecraft: Education Edition is a special version of the popular game developed specifically for educational use and allows schools and students to be part of this fun and interactive digital world while providing great educational benefits and learning opportunities.

Minecraft: Education Edition contains many features for a classroom setting including:

Easy and safe classroom collaboration

Educators have told us that one of the greatest benefits of *Minecraft: Education Edition* is the ability for students to collaborate together to build projects and solve problems in a private world.

Detailed control of settings

Educators can turn off traditional Minecraft game elements that may distract students from the learning focus of the activity, for example, combat items and creatures, the nighttime/daytime sequence, rain and storms.

Camera and portfolio

When students have their own account within your school, the camera and portfolio features allow students to take screenshots of their work and document the development of their projects for assessment use by the teachers.

Non-player characters

Educators can create in-game guides for students that give instructions, provide more information and insert active web links to additional references.

Chalkboards

Creators can use chalkboards to communicate learning goals, provide additional information and give explicit instructions.

Blocks

The educator can allow and deny blocks to control where players build and create border blocks to prevent players from entering or leaving an area.



Why is Minecraft so popular with students and educators?

For students, it's simple, Minecraft is already something that many of them know and love. Being such an open, engaging environment that provides endless creative possibilities, even children who have never used Minecraft quickly find themselves having fun.

For educators, we have the ability to tap into this popular game and use it as a tool for learning that is focussed, yet still highly engaging.

While the most obvious way to use Minecraft in the classroom is to construct 3D (pixelated) representations of real world objects or locations, it can also be used for team building, communication, digital citizenship and coding. *Minecraft: Education Edition* is indeed a valuable tool for educators to support a variety of learning aspects and the digital technology curriculum.



How can we help you with Minecraft for education or digital technologies?

At ScopeIT Education we use *Minecraft: Education Edition* in a number of courses, allowing students to participate in engaging, hands-on challenges as they work through outcomes to achieve skills in collaboration, communication, teamwork, problem solving, creativity and critical thinking.

Through carefully constructed worlds to represent concepts and physical elements that complement our lessons, we use Minecraft to tackle topics such as:

- Social and ethical protocols in an online environment
- Digital systems - How hardware, software and data interact
- Digital networks - Wired and wireless data transmission between networks
- Teamwork
- Communication strategies
- Conflict resolution
- Digital footprint
- Password security
- Devices and sleep
- Digital commerce (in-app purchases)
- Coding: Algorithms, iteration (loops) and branching (conditionals).

Teachers also benefit from our courses by developing an understanding of how students use engineering, planning and teamwork in Minecraft.

We have a whole team working tirelessly on Minecraft lesson resources that pair with learning outcomes so feel free to reach out and ask us about it!

See an example overleaf of how we use *Minecraft: Education Edition* to tackle data in the digital technologies curriculum; specifically designed for the different outcomes in each year group.



How we tackle data in the digital technologies curriculum

ScopeIT Education's Digital Technology courses address 100% of the digital technologies curriculum outcomes. Here we show how Minecraft worlds are carefully constructed to represent concepts and physical elements that complement our lessons. These examples illustrate how we have tackled data in the digital technologies curriculum.

S01C51E13 - Collecting Data in Minecraft



Years 1/2: Students collect and explore data

- Students are tasked to count the number of each animal/plant type and realise the difficulty of the task
- Students realise and discuss that data can be collected more effectively when sorted
- Students then collect and record the newly sorted data - discussing the difference
- Setup for following lessons where students represent their collected data in a spreadsheet before identifying any observable patterns or trends.

S02C60E10 - Data Transmission in Minecraft



Years 3/4: Students explore data transmission

- Groups are tasked to craft an item but are missing one resource
- Students must send messages to other groups requesting resources
- Students communicate their requests through a group of students who are acting as the internet
- Visual cues highlight the data transmission process to students as they participate live in the simulation.

S03C70E10 - Digital Networks: Transmission of Data



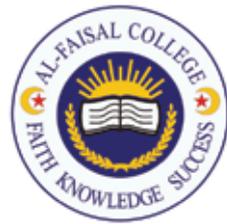
Years 5/6: Students explore digital networks and wired and wireless data transmission

- Groups are assigned a role within a simulated digital network and are tasked to collect blocks (data) from multiple digital systems in order to build a structure
- One group travels via wired means with the minecart and tracks simulating wired data transmission
- One group travel via wireless means with teleport pads simulating wireless data transmission
- Students experience and understand the benefits and limitations of both wired and wireless transmission as they progress through the activity.

Contact us about our Minecraft: Community and Citizenship or Digital Technologies Courses



Testimonial from Al-Faisal College



"Imagine living in a world where a gaming platform could be used to teach students about the concepts of communities, sustainability and resources. And so began the journey at Al-Faisal College with the assistance of ScopeIT to introduce students to Minecraft education in science and history.

Having a virtual world meant that the possibilities and capabilities were endless. Students were taught by talented and amazing Scopers the foundations and basics of Minecraft education. Then they were able to use their knowledge and application of science/history to creatively plan, design and construct a new home. Students were consistently working collaboratively with a partner and problem solving solutions to questions, eg: what suitable resources and materials would be used for constructing the walls and ceiling.

The lessons were something that our students really looked forward to as they were so engaged with the activities and very proud of their homes.

Al-Faisal College was so impressed with the quality of work created by students that we have even opened a "Minecraft" club during lunch times.

A big thank you to the ScopeIT team for their knowledge and professionalism in delivering a new program to students. You have inspired such a love of learning and using practical skills to demonstrate a better understanding of science concepts."

– Safia Khan Hassanein, Deputy Principal (Multi School: Human and Physical Resources), Al-Faisal Colleges (Auburn, Campbelltown, Liverpool)

TECH TOURNAMENT

ScopeIT Education's Tech Tournament is back!

Our annual coding competition is open to any student from a school where ScopeIT Education delivers courses or a coder from a CIY.Club.

Coinciding with Australian National Science Week, Tech Tournament has been designed to encourage students to use their imaginations with creative design and digital technologies skills.

Students aged 7-15 can enter the story/animation and/or gaming challenge category with HP Pavilion touchscreen laptops and Lenovo M10 tablets to be won!

Entries open Monday 22nd July.

www.techtournament.com.au

DESTINATION MOON CODING COMPETITION 2019



WIN GREAT PRIZES