Charles Sturt University

Wangaratta Regional Study Centre

Digital Resources Library

Our partnership with Wangaratta's Digital Technology Advisory Committee includes a library of hands-on equipment supporting Science, Technology, Engineering and Mathematics learning curriculum. Class packs are available to encourage learners from preschoolers through to adults to think critically and flexibly and adapt to changing situations. Please find below these STEM related resources for school and community use, available for loan through DTAC.

Resource	Number
Spheros	15 x Spheros (bundled as one class set)
Sphero Bolts	15 x Sphero Bolts (bundled as one classroom set)
VEX 123 Classroom Kit *(On order - available in 2022)*	9 x 123 Robots & coders + Field (Bundled as one class set)
VEX GO Classroom Kits	3 x VEX GO classroom Kits (5 x student kits + field tiles in each class set)
VEX IQ Kits	8 x VEX IQ student kits (max 2 kits per school)
Bloxels Set	6 x Bloxels Sets (bundled as one classroom set)
8" Dobsonian Telescopes	3 x 8" Dobsonian Telescopes
Osmo	5 x Osmos (bundled as one classroom set)
Pocket Lab Voyager Kit	10 x Pocket Lab Voyager (bundled as a classroom set)
Vex Field	1 x Vex Field for VEX IQ competitions
Ipads	Ipads are available to be borrowed for resources above if school requires them for use with spheros, sphero bolts, Bloxels & Osmos.

For further information, teacher resources and to borrow these items see: https://dtac.zone/pages/resources

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VEX 123

VEX 123 is an interactive, programmable robot that takes Computer Science and Computational Thinking off the screen and brings them to life for Pre-K through 3rd Grade students. No Devices? No Problem! The 123 robot is programmable without a computer. Using the VEX Coder and physical cards, you can learn real programming away from screens.

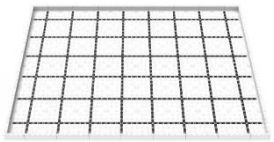
VEX GO

VEX GO is an affordable construction system that teaches the fundamentals of STEM through fun, hands-on activities that help young students perceive coding and engineering in a fun and positive way! Color-coded VEX GO containers help teachers stay organized while their students are learning on-the-go.

VEX IQ Kit

This VEX IQ Robotics Construction Kit comes with over 750 components (including 4 motors, a colour sensor, bump switch, touch LED and controller) which you can use to build your own robot so you can develop your STEM learning skills and have fun at the same time. You can find instructions for pre-set builds online, or you can create your own machine then program it using VEXcode. VEXcode is a coding environment with an intuitive layout that meets students at their coding level (blocks & text).

Vex Field



A 6' x 8' VEX IQ field is *required* for use in the VEX IQ Competitions. The field's snap-together construction allows for assembly in minutes. The VEX IQ Field comes in a Carrying Case.

Sphero

The Sphero Enabled Robot is perfect for introducing students to the world of robotics, coding and programming. It's powered by the Lightning Lab app which makes programming quick and easy, allowing you to get started and understand the basics in almost no time. You can use the app to collaborate with users around the world to enhance your own experience.

Sphero Bolt

Sphero BOLT's eye-catching, programmable 8x8 light matrix opens up an endless array of coding and gaming capabilities. Use advanced sensors to track speed, acceleration, and direction, or drive BOLT without having to aim your robot thanks to the compass. BOLT also features infrared communication, allowing your robot to "talk" with other BOLTs. Program BOLT with the Sphero Edu app from nearly any mobile or desktop device, discover awesome community-created activities, or just drive and play.

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Osmo

Osmo makes hands-on learning games in which players use objects in the real world to interact with the digital world shown on their iPad. With a focus on problem solving, numeracy, and literacy, students learn abstract concepts by connecting them to objects and actions in the physical world. In addition to teaching traditional subject matter, Osmo games foster social-emotional skills like problem-solving, creativity and perseverance

Bloxels

Bloxels is a hands-on platform for students to build, collaborate, and tell stories through video game creation. Students use coloured blocks to design their characters and settings to tell their own amazing stories! The game board is scanned using the free iPad app to make the creation come to life. This engaging classroom tool is putting learning into the hands of students. Imagine designing a scientific process, a historical location, or even a story about yourself. Bloxels has created lessons plans and activities for you. These easy to follow lessons help bring this amazing makerspace technology to your classroom in Science, History and Math.

Pocket Lab Voyager

Pocket Lab Voyager is an all-in-one science lab that can measure motion, light, magnetic fields, and weather. Pocket Voyagers are perfect for data collection in the classroom. Units are user friendly and require little training to become skilled in their use. Their connectivity to the free app is quick and simple, and the parameters of what is being measured are easily controlled. The units have a multitude of applications, both in and out of the classroom. From simple acceleration experiments to modelling head on collisions, the Pocket Voyagers are the perfect hand held sensor.

8” Dobsonian Telescopes

These are extremely easy to use, sturdy and strong 8” Dobsonian Telescopes. No fancy adjustments required, just aim and look. Great to observe the moon and planets, to inspire all ages.

Note these are quite large items: Weight approx. 13kg, Height approx. 1.5m.

DTAC Digital Technology Advisory Committee

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