FUTURE ANYTHING

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ACTIVATE 2024
UNIT OVERVIEW
TECHNOLOGY X

FUTURE ANYTHING: ACTIVATE 2024 | TECHNOLOGY X UNIT OVERVIEW

L	Title	Learning Goals	Success Criteria	Exit Ticket Portfolio Assessment items *	Future Capabilities	Key Activities	Teacher Tips and Advice
1	The Beginning	We are learning to understand the shape of the Future Anything Activate program through the exploration of the Driving Question. We are learning to understand the Future Capabilities that underpin the Activate program.	Use what you know to complete a mini, tech-based challenge. Use what you know to outline the Future Capabilities and identify when they are being used.	▲ Annotated Sketch of 'Tech-ified' School Area ▲ Pre-program survey	Communication Curiosity Creativity	▲ Mini Challenge: 'Tech-ified' School Area ▲ Future Capabilities PPT ▲ Future Anything Pre-Program Survey ▲ Mini Challenge Reflection	This lesson is centred around a mini, tech-based challenge that requires students to pick an area of the school to 'tech-ify'. We recommend starting this lesson by having students physically walk around the school to determine the area that they want to focus on. Then, they will work in small groups to generate a way to use technology to make that area of the school better. This mini challenge is a great way to launch the Activate program, introduce students to the Driving Question, as well as have them experiment with using the Future Capabilities. NOTE: Teachers will need to determine the winning team of the mini, tech-based challenge in this lesson. Ensure all students complete the Pre-Program survey - this will help us feed back to you on their learning! You should also complete the Teacher Pre-Program Survey at this point.
2	Tech Til Now	We are learning to understand how technology impacts our daily lives. We are learning to deep dive into the history and evolution of a technology to understand why it is the way it is.	Use what you know to predict how a technology may change over the next 5-10 years Use what you know to create a visual tool to communicate the way your technology has changed over time	▲ Technology Over Time Activity ▲ Creative Communication of Findings	Communication Curiosity Critical Thinking	▲ Technology Over Time Activity ▲ Creative Communication of Findings	This lesson starts by broadening students' understanding of what constitutes technology and how it is more than just electronics. Students will then be guided to explore how one technology in their life has evolved over time in small groups. They will use this information to predict how the technology might continue to evolve over the next 5-10 years. Students will create a visual communication tool to share their findings. Students will then report back to the class. For more GIF makers (and heaps more amazing tech tools check out The Teacher's Guide to Tech)

3-4	Emerging tech	We are learning to understand the current emerging technology landscape.	Use what you know to envision how two emerging technologies could solve a problem in a chosen industry.	▲ Emerging Technology Deep Dive ▲ Mini Design Brief and Elevator pitch	Curiosity Critical Thinking Communication	▲ Emerging Technology Deep Dive ▲ Mini Design Brief and Elevator Pitch	This lesson block supports students to examine current emerging technologies including: Artificial Intelligence, Wearable Technology, Immersive Realities, Augmented Reality, Brain interference devices, 3D printing and robotics (or another verified by the teacher). Students will then practice ideating using a chosen tech area (e.g robotics, AI, VR etc.). Prompt groups to split and re-form (jigsaw style). Students will work with two technology types and choose an industry focus area to design a new tech solution to a problem in that industry. Students create an Elevator Pitch to share their idea in 60 seconds.
5	Tech Gone Wrong	We are learning to understand the challenges associated with technology.	Use what you know to share insights about ethical issues related to technology. Use what you know to engage in a debate about these ethical issues.	▲ Technological Dilemma Case Study	Critical Thinking	▲ Ideate Tech Challenges ▲ Technological Dilemma Case Study ▲ Debate – ethical technology issue	In this lesson, students will explore the ethical challenges of technology. They'll do this by considering the challenges that they've experienced with technology, as well as the challenge they've witnessed other people experience with technology. Then, they will explore a technological dilemma case study and consider how they would navigate this. The debate activity requires you to set a debate topic. You might choose to provide several topics so students work in small groups rather than as a whole class. Potential topics include: - Personal privacy is more important than national security - Artificial intelligence causes more harm than good - Remote work has ruined work life balance Find more ideas **here.**

6-7	Tech For Good	We are learning to understand how technology can be used to solve global problems.	Use what you know to investigate how technology can help meet the United Nation's Sustainable Development Goals. Use what you know to source examples of tech-based start-ups and/or solutions that are addressing the Sustainable Development Goals.	▲ Tech x SDG Workbook	Curiosity Creative Thinking	▲ Tech x SDG Workbook ▲ Solutions Wall	In this lesson block, students will be introduced to the United Nation's 17 Sustainable Development Goals (SDG). A solution to the 'wedding cake' starter activity can be found **here**. Students will consider an example of tech for good with the Solar Windows or City Trees video. Then, they will ideate ways a chosen technology might be applied to five different SDGs. Next, students then conduct a Horizon Scan and identify two real examples of companies that are working on technologies that help solve a chosen SDG. As a class, create a comprehensive solution wall of awesome examples of tech that solve SDGs. The **Tech x SDG Inspiration Bank** is an additional resource that you can refer to in this lesson or at any stage throughout the course. Find it in the first module.
8	The Entrepreneur's Odyssey	We are learning to appreciate how our past has informed our present; creating personalised areas of expertise and authenticity. We are learning to build a profile to help us understand who we are; our strengths and weaknesses; likes and dislikes.	Use what you know to build a learner profile. Use what you know to share insights about yourself with a partner.	▲ Learner profile avatar presentation	Communication Curiosity	▲ Introduction to the Entrepreneur's Odyssey Image ▲ Various Learner Profile Activities - student choice ▲ Avatar creation and sharing via presentation (PowerPoint, Video, Tik Tok, etc)	This lesson is the beginning of the Entrepreneur's Odyssey, where students being an exploration of the Driving Question. This lesson focuses on Step 1, where students gather insights about themselves via quizzes, reflections and other activities. You are welcome to draw from what already happens in your school context (e.g. pastoral care or similar). If an activity is not hyperlinked, then it is a Future Anything resource and will be available in the Learner Profile resource folder. Students are prompted to create an 'Avatar' of themselves, which highlights their strengths, interests and collaboration style. Ensure you plan time to share their insights with others – this is an important part of the process.

9	What matters to me?	We are learning how to connect our lived experiences with global issues. We are learning to describe the causes, consequences of a chosen problem.	Use what you know to choose the top three 'wicked problems' that you are passionate about solving. Use what you know to ensure your chosen problem is connected to your lived experience. Use what you know to identify the causes and consequences of a chosen problem.	^ The Domino Effect Template*	Curiosity Creativity Critical Thinking	^ Problem Ideation PPT - ideating 50+ problems in the world. ^ Choosing 3-5 wicked problems. ^ Using your problem matrix to check alignment with self and select problem. ^ Connect with other people with similar interest in problems. ^ Domino Effect Activity	The focus of this lesson is for students to generate a range of 'wicked' problems using the SDGs as prompters in the Problem Ideation PPT. Once students have ideated a range of potential problems, they will be guided to choose 3-5 problems that jump out to them and then, they will take each problem through a problem matrix. They will use the problem matrix to determine which problem they want to focus on and then, they will close this lesson by connecting with students who have chosen a similar problem focus. Each group will begin by completing a Domino Effect Activity to flesh out the causes and consequences of their chosen problem. You might choose to complete this activity in a digital space, such as using Miro or OneNote to collaborate. We recommend being particularly tuned into students' engagement with their chosen problem and group during this lesson. If students are not focused (or not able to fill their Domino Effect Template), please support them with pivoting from their original problem and group.
10	Why does it matter?	We are learning to understand the scope and impact of a chosen problem. We are learning to understand the other solutions that tackle the chosen problem using technology.	Use what you know to complete a deep dive into your chosen problem. Use what you know to complete an existing solutions inventory.	^ Problem Deep-Dive*	Curiosity Critical Thinking	^ Problem Deep Dive ^ Solution scan	This lesson is focused on students developing a strong understanding of their chosen problem (because we cannot solve a problem that we know little about). It may be best to divide their focus for the remainder of the lesson - half of the group investigating the chosen problem and the other half of the group will need to explore the existing solutions in place to solve this problem.
11	What could we do about it?	We are learning to define our design challenge. We are learning to understand the conditions that make creativity and divergent thinking possible.	Use what you know to identify and refine your 'How might we' question/s. Use what you know to ideate 50+ possible solutions and pretotype two possible solutions.	^ 2 Pretotypes*	Creativity Adaptive Mindset	^ Frame Your Design Challenge ^ Solutions Ideation PPT - ideate 50+ possible solutions to your problem. ^ 2 x Pretotypes	In this lesson block, student will need to turn their problem into a 'How might we...' statement. Students will be prompted to generate a range of tech-based solutions for their chosen problem. Then, they will be required to select two of their favourite ideas to pretotype. Students will then pretotype their two ideas by completing an annotated sketch or storyboard template to represent each idea (in its early stages).

12	Teamwork Makes the Dream Work	We are learning to understand the expectations and requirements of the assessment task. We are learning to use project management skills to set up 'norms' which create a healthy environment for collaboration.	Use what you know to develop a Project Management Plan.	▲ Project Management Plan*	Communication Project Management	▲ Introduce assessment ▲ Stinky Fish activity ▲ Project Management Plan	This lesson is centred around setting up the team for success by having each group complete a project management plan where they will be guided to break down the project into key actions steps, assign a person responsible for each of the key action steps and determine a due date for each key action. Ensure that students consider their Collaborative Archetypes when assigning key action items for the project. The tool provided is a Word document, but it is highly recommended that students use an online tool like Notion, Asana or Trello to assign tasks and manage progress.
13	How do we know it will work?	We are learning to evaluate our proposed solutions by considering their unique features and viability.	Use what you know to identify and explain how your solution solves the chosen problem. Use what you know to pinpoint your solutions' points of difference.	▲ Does it solve our problem? Worksheet ▲ Points of Difference Canvas*	Critical Thinking Innovation	▲ Does it solve our problem worksheet ▲ Point of Difference PPT and Canvas ▲ Check for similar ideas	The focus of this lesson is for students to ensure that their tech-based solution solves the problem they have identified and that it has a clear point of difference. Students are encouraged to evaluate how their solution solves the chosen problem. They will be guided to ideate a range of ways that they can differentiate their solution and then, they will select 3-4 to weave into their solution.
14-15	How can we test it?	We are learning to understand how to use prototyping tools to test our tech-based solutions.	Use what you know to create an advanced prototype.	▲ Completed Prototype	Curiosity Innovation	▲ Identify assumptions to test ▲ Choose Your Own Prototyping Adventure: Students select a prototyping method to create a more advanced prototype of their tech-based solution.	In this lesson block, students will be asked to identify any assumptions they have made about their solution, and to decide on what they need to test in the prototyping phase. Students will be introduced to a range of prototyping tools, such as computer-aided design, wireframing, 3D printing, etc. Then, students will have the opportunity to adapt their pretotype and build a prototype using one (or more) of these prototyping tools.
16	Feedback as fuel	We are learning how to source feedback in a variety of ways. We are learning to integrate feedback in order to pivot.	Use what you know to gather purposeful feedback from users.	▲ Feedback Integration Cards	Adaptive Mindset Communication	▲ Feedback Finder Matrix ▲ Feedback Matrix ▲ Feedback Collection Template	Students will be introduced to a range of feedback methods and they will select a feedback method to engage in once they have built their prototype. The students will close this lesson block by integrating the feedback that they received to finalise their prototype. It is recommended that students gather evidence of the feedback that they received, as well as keep a record of how they used their feedback to improve their solution as this will be required for their tech design folio.
Booster Module 1: Pitching							

B1	The Perfect Pitch	We are learning to understand the structure and delivery of a persuasive pitch	Use what you know to draft your pitch and slidedeck.	Final draft of pitch and slidedeck.	Communication Creativity	Students analyse one of the Future Anything Grand Final Pitch Videos Students go through The Pitch PPT, uses the Future Anything Pitch Cheat Sheet and complete the PPPPA Pitching Template Students create a slidedeck Students gain feedback	Use this booster to support students to create a persuasive pitch. This unit does not focus strongly on a 'Pitch' as the product, but you may wish to include this lesson (or an abbreviated version of it) if students want to develop a pitch. This is an important part of the Future Anything Finals, so this lesson could also be an optional task for groups who are keen to push their ideas further.
Booster Module 2: Strategic Action Plan							
B2	Strategic Action Plan	We are learning to consider the sustainability and longevity of our tech-based solution by exploring areas, such as finance, marketing, ethics and impact.	Use what you know to Use what you know to create a strategic action plan for the implementation of your tech-based solution beyond the Activate Program.	Roadmap Strategic Action Plan Workbook	Communication Project Management Critical Thinking Innovation	Students complete a 'roadmap' that assists them to bring their idea to market. They then work through a Strategic Action Plan to set goals, plan their finances, and make decisions relating to marketing and ethics.	This is an optional booster that can be included in the Tech Design Folio submission (see Section 6: Next steps). The Strategic Action Plan will: outline their future goals, establish their financial and marketing strategies, prepare for potential ethical challenges with the implementation of their tech-based solution, as well as clarify their intended, long-term impact.
17-19	This lesson block has been intentionally left for students to compile Sections 1-4 of their Tech Design Folio, as well as complete their Prototype Justification (Section 5). This time can also be used to complete the optional booster lessons (in blue)						
20	How Do We Bend The Future?	We are learning to understand the importance of reflection.	Use what you know to explain what went well, what didn't go well and what you would do differently to improve.	▲ Students complete Denouement Handout* ▲ Student Post Program Survey	Adaptive Mindset	▲ Denouement ▲ **Student Post Program Survey** ▲ **Apply for Future Anything National Finals 2024**	This is a great opportunity to reflect on the program. Make sure you complete the **Teacher Post-Program Survey**, and get students to complete the **Student Post Program Survey** so we can provide you will important information about their experience of the program. This is also a great time for you to gather internal feedback from students, teachers, parents and other stakeholders about the project. What worked? What would they love to see next year? Collect these ideas so next year's teachers can continue to grow the program in your school. All Activate students can apply for the Future Anything National Finals to be in with the chance of winning a share of $20K in funding and support to launch their ideas into the real world.

AUSTRALIAN CURRICULUM LINKS

Design and Technologies (Year 9 and 10)

- AC9TDE10K02: analyse the impact of innovation, enterprise and emerging technologies on designed solutions for global preferred futures
- AC9TDE10K04: analyse and make judgements on the ethical, secure and sustainable production and marketing of food and fibre enterprises
- AC9TDE10K06: analyse and make judgements on how characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions
- AC9TDE10P01: analyse needs or opportunities for designing; develop design briefs; and investigate, analyse and select materials, systems, components, tools and equipment to create designed solutions
- AC9TDE10P02: apply innovation and enterprise skills to generate, test, iterate and communicate design ideas, processes and solutions, including using digital tools
- AC9TDE10P05: develop project plans for intended purposes and audiences to individually and collaboratively manage projects, taking into consideration time, cost, risk, processes and production of designed solutions

Sustainability (Cross Curriculum Priority)

- SS2: Sustainable patterns of living require the responsible use of resources, maintenance of clean air, water and soils, and preservation or restoration of healthy environments.
- SS3: Social, economic and political systems influence the sustainability of Earth's systems
- SW1: World views that recognise the interdependence of Earth's systems, and value diversity, equity and social justice, are essential for achieving sustainability.
- SW2: World views are formed by experiences at personal, local, national and global levels, and are linked to individual, community, business and political actions for sustainability.
- SD1: Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems
- SD2: Creative and innovative design is integral to the identification of new ways of sustainable living.

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