



teacher resources

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The future we will invent
is a choice we make, not
something that just happens.

Satya Nadella

CEO - Microsoft

welcome to the ai for good challenge!

Welcome to the Teacher Resources! We have designed these resources to be:

- **Easy** for you to understand and implement with your students.
- **Aligned** to the Australian curriculum.
- **Flexible**, allowing you to run a series of twenty minute sessions with your students, or extend learning sessions out to go longer and delve deeper.
- **Insightful**, with the goal that both you and your students learn a great deal!

how the teacher resources work.

In each of the teacher resources PDFs, we provide a range of different insights for you. These include:

teacher tips

If you see this icon, this is where we give you a few insights to consider as you prepare what you would like to share with your students. Remember, our goal is for both you and your students to learn a bunch!

core learning

If you see this icon, then it means this is a basic activity that we recommend doing with your students. If you were to do a majority of the core learning activities (usually a short video, some learning or an activity), your students will have what they need to submit a great entry. There is also an time estimation provided for this section.

curriculum links

If you see this icon and heading, it is where we will tell you about the learning goals for this particular module, and how they align with the Australian curriculum.

extra learning

As discussed above, we present what we call 'core learning' sessions and we recommend all students engage with these. The second set of learnings are what we call 'extra learning', with plenty of links, activity ideas and challenges to engage your students. As teachers you can choose how much your students engage in these extra learning activities. There is also an time estimation provided for this section.



here is what happens in the challenge.

The AI for Good Challenge is a design challenge, where your students first learn about Artificial Intelligence, and then dream up a solution to make the world better using AI. Here is the best way to engage with the challenge, and improve your students' chances of success.

1. make sure your school is registered.

While you can have many student teams entering the challenge, we do need you to register your school. This allows us to know who is taking part in the challenge, and ensures that we can send you updates and information through Term 2.

2. engage with the teacher resources.

We understand that AI is very new technology for many Australian teachers. As such, we have prepared a bunch of resources to help you learn more about AI, and then be in a position to teach it to your students. There are sections called [core learning](#) which are the basic pieces we recommend you do with your students for them to understand and engage with the challenge, and then there are [extra learning](#) sessions which are for those classes that want to go deeper. We have slides that you can present in class and also PDF guides to give you ideas for learning and activities. All of these resources are on the aiforgood.com.au site.

3. embed ai focused lessons into your classes + more.

Most teachers will be running their students through the AI for Good classes during Term 2. Whilst we give you a wide range of resources to draw on, how you do so is entirely up to you. We recommend that your students at least engage in the core learning sessions, but also invite you to go into some of the extra learning components if you feel they are appropriate and you can make time in your lesson schedule. Some other great ways you could run this Challenge include an after-school club, lunch time group or even as a whole day event for a year level challenge!

4. students innovate their ai concepts.

Equipped with some powerful learning led by you, your students innovate an AI solution that either improves the earth, increases inclusion, or improves the lives of people at risk. It is important to note that they don't need to actually build or code the AI, rather they just dream up a solution using AI and submit these ideas. In this way it is more of a design-thinking challenge than a technology challenge, meaning all of your students can be involved!

5. students submit their ai concepts.

Students submit their AI concepts through the aiforgood.com.au website (before the 21st June). The best entrants move through to the state finals in July 2019, and national finals are held in August 2019.

the four learning modules.

In the AI for Good Challenge there are four learning modules designed to help your students understand what Artificial Intelligence is, understand the ethics of the technology and its potential for good, and then help them to dream up an AI concept that will make the world better. We encourage you to engage with all of the sessions in the modules, however at a minimum we would recommend at least engaging with at least one session per module.

module 1: what is ai?

1.0 Welcome to the AI for Good Challenge:

A quick intro to the challenge, with early activities for your students.

1.1 **What is AI?:** We help to explain what AI is, it's history and the different types of AI.

1.2 **AI in your life:** A module to help your students realise how often they use AI!

1.3 **How AI can help us :** To help your students understand the possibilities of AI for good, we share powerful uses of AI across the world.

module 2: ethics of ai

2.0 **Why AI ethics matter:** A chance to open the conversation about how powerful, and how risky AI can be.

2.1 **AI ethics principles:** More philosophy than technology, this continues our exploration into the ethics of AI.

2.2 **AI in the news:** Designed to help your students see the ethics of AI all around them, and to engage with the ongoing debate on how this technology should be used.

module 3: ai for good

3.0 **What is AI for Good?:** In this session students are inspired by the possibilities of AI, and how it can positively affect the world in their lifetime.

3.1 **AI for Good Examples:** To ignite their creativity for the challenge, students then engage with real world examples of AI being used for good.

3.2 **Finding your passion:** Students are then supported to start to focus down on the key area that they want to see change in.

module 4: the challenge

4.0 **Kickstarting the Challenge:** Equipped with learnings, the creativity begins!

4.1 **The Problem:** How to understand it!

4.2 **Coming up with Solutions:** Innovating solutions.

4.3 **Picking and Improving Ideas:** Choosing the best idea and making it better.

4.4 **Ethics Check-in:** Your idea's ethics.

4.5 **Your submission:** How to enter a great submission and submit correctly.

it's time to get started!

The next teacher resource PDF will step you through how the first session in Module 1 works, explaining the concepts we will present, some tips on a class you might want to run, activities to deepen the learning, a slide-deck that might come in handy, and plenty of resources. Have fun in the challenge, and good luck to you and your students!

key dates to remember.

April & May 2019: This is a great time to be running your classes, groups and events with students to help them learn about AI, and begin to build their AI concepts. In May we are running hackathons in the capital cities of each state and territory (27th May Sydney, 28th May Melbourne, 29th May Darwin, 31st May Brisbane and Canberra, 4th June Perth, 7th June Hobart, 11th June Adelaide). You can bring both students and staff to the hackathon if you would like to receive this training, and these will be fun days of professional learning. The sign-up pages for these hackathons are below. During May we are also holding webinars that you can join or download later, where we talk through further learning and provide you with some tips to improve your student's chances of success!

Sydney: 27th May <https://events.humanitix.com.au/sydneyaihack>

Melbourne: 28th May <https://events.humanitix.com.au/melbourneaihack>

Darwin: 29th May <https://events.humanitix.com.au/darwinaihack>

Brisbane: 31st May <https://events.humanitix.com.au/brisbaneaihack>

Canberra: 31st May <https://events.humanitix.com.au/canberraaihack>

Perth: 4th June <https://events.humanitix.com.au/perthaihack>

Hobart: 7th June <https://events.humanitix.com.au/hobartaihack>

Adelaide: 11th June <https://events.humanitix.com.au/adelaideaihack>

June 2019: All of your students' submissions need to be in by the 21st June!

July 2019: Those entries that are selected by the judging panel will move through to state finals. If one of your student teams makes the state finals, they will present their idea to a panel of judges either in person at the state final, or remotely through video-conference. Dates for the state finals are 23rd July in Brisbane, 24th July in Sydney, 25th July in Melbourne, 26th July in Hobart, 30th July in Adelaide, 31st July in Perth and 2nd August in Darwin.

August 2019: Teams that move through the state finals are invited to the national finals in Sydney. Travel is covered for teams and their sponsoring adult, and both travel and accommodation is covered for teams from Western Australia and the Northern Territory. The national final is on the 16th August.

