# VICTORIAN STUDENTS' PARLIAMENTARY PROGRAM (VSPP) 2024: ONLINE SECONDARY SCHOOL CONVENTION

Торіс

Should technological advancements such as AI be incorporated into the classroom?



# **STUDENT ACTIVITIES**

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### LEARNING INTENTION FOR THESE STUDENT ACTIVITIES:

#### By the completion of these activities' students will be able to:

- Understand what technological advancements including artificial intelligence are and the role they can play for students in education and their learning today
- Actively participate in collaborative discussions about the use of various technological tools like AI by students in the classroom

### SUCCESS CRITERIA FOR THESE STUDENT ACTIVITIES:

#### Students will be able to:

- Explain what technological advances are, their impact in the contemporary/modern classroom and on their learning
- Explain what AI is and its application in the classroom
- Analyse the advantages and disadvantages of these technological advances including artificial intelligence tools
- Communicate their ideas and opinions on whether technological tools such as AI should be incorporated into their learning in the classroom
- Develop their critical thinking skills to consider the arguments surrounding technological advances and their impact in their learning

# Activity 1: THE CLASSROOM – PAST AND PRESENT – CREATIVE COLLABORATION

#### **Learning Intentions**

We will list the similarities and differences between the traditional and the 21st-century classroom which has been influenced by rapid technological advancements.

#### **Success Criteria**

I can provide a list of both similarities and differences looking at the images of the traditional and 21<sup>st</sup> century classrooms.

#### **Task Instructions:**

**1. Individual Idea Generation –** Each student will complete the mind map provided after examining the two images and listing what is similar and what is different about them.

**2.Class discussion –** Students will share the information on their mind map and generate a group list of similarities and differences between the two classroom images.

**Extension activity** – Students can further share which is their preferred learning environment and offer reasons for their choice.

#### TRADITIONAL CLASSROOM:



CONTEMPORARY CLASSROOM - 21<sup>st</sup> CENTURY



# Activity 2: PROFILE OF A STUDENT IN THE 21<sup>ST</sup> CENTURY - IDENTIFYING THE SKILLS AND COMPETENCIES NEEDED IN THIS TECHNOLOGICALLY ADVANCED WORLD

#### **Learning Intentions**

We will gain a clear understanding of the skills a student needs today to adapt to technological advancements.

#### **Success Criteria**

I can show an understanding of the skills I will need to be able to participate in the community and the workforce with the fast pace technological advancements especially in relation to AI.

#### **Task Instructions:**

1. In groups of 3-4 students complete the first two questions.

**2.** Your teacher will assign you to read an article or watch a video clip about the skills a student needs in the 21<sup>st</sup> Century. Use this information to list the key skills around the silhouette of two people – you can include others that the group comes up with.

3. Share your answers with the other groups through a class discussion and identify the most common skills.

#### Group questions to consider:

1. Define the term 'skills' and give some examples.

2. List two skills you need at school and two skills you need at home when interacting with your family.

#### Silhouette activity:

#### Article 1:

The Must-Have 21st Century Skills For Kids (robowunderkind.com)

#### Article 2:

What Is a 21st-Century Skills-Based Education? | The Hun School

#### Article 3:

21st Century Skills - preparing students for a changing world

#### Article 4:

A Comprehensive Guide to 21st Century Skills (panoramaed.com)

#### YouTube clip:

21st century skills - YouTube (2.07 minutes)

Suggest two skills that are now obsolete or no longer required for students or employees in the workforce.

Victorian Student's Parliamentary Program 2024 Online Secondary School Convention

# **KEY SKILLS NEEDED IN THE**

# 21<sup>st</sup> CENTURY



# Activity 3: ADVANCES IN TECHNOLOGY – TIMELINE OF KEY EVENTS - INVESTIGATION

#### **Learning Intentions**

We will study the long-term timeline of technology to understand the technological advances that have been made worldwide since the Iron Age. (between 1200BC to 600BC)

#### Success Criteria

I can identify key technological advances that have occurred in the past two centuries.

#### Task Instructions:

Click on the link and read the information provided and list the 10 most important technological advances in the last decade.

Then referring to the long-term timeline provided complete the three tasks.

#### Click on the link:

#### 10 major technological advances in the last 10 years (ignitec.com)

The graph from Our World in Data shows the remarkable progress of technology over the past two centuries. From the invention of the steam engine to the rise of the internet the timeline illustrates the rapid advancements that have changed our world. Understanding this historical context is important as we continue to navigate the technological world, we live in the 21<sup>st</sup> Century.

#### 1. Fill in the blank with the correct word.

1. The \_\_\_\_\_\_ engine was a major breakthrough in the early 19<sup>th</sup> century.

2. The \_\_\_\_\_\_ was invented in the 1830's revolutionising/changing long distance communication.

3. The first \_\_\_\_\_\_ computer was created in the 1940's.

4. The first internet website was released in \_\_\_\_\_\_.

5. One recent invention in our lifetime has been the \_\_\_\_\_\_

# 2. Multiple Choice Questions – Choose and circle the correct answer from the given choices for each question.

1. Which of the following was a key factor in the Industrial Revolution?

a. the internal combustion engine

- b. the steam engine
- c. the electric motor
- d. the telephone

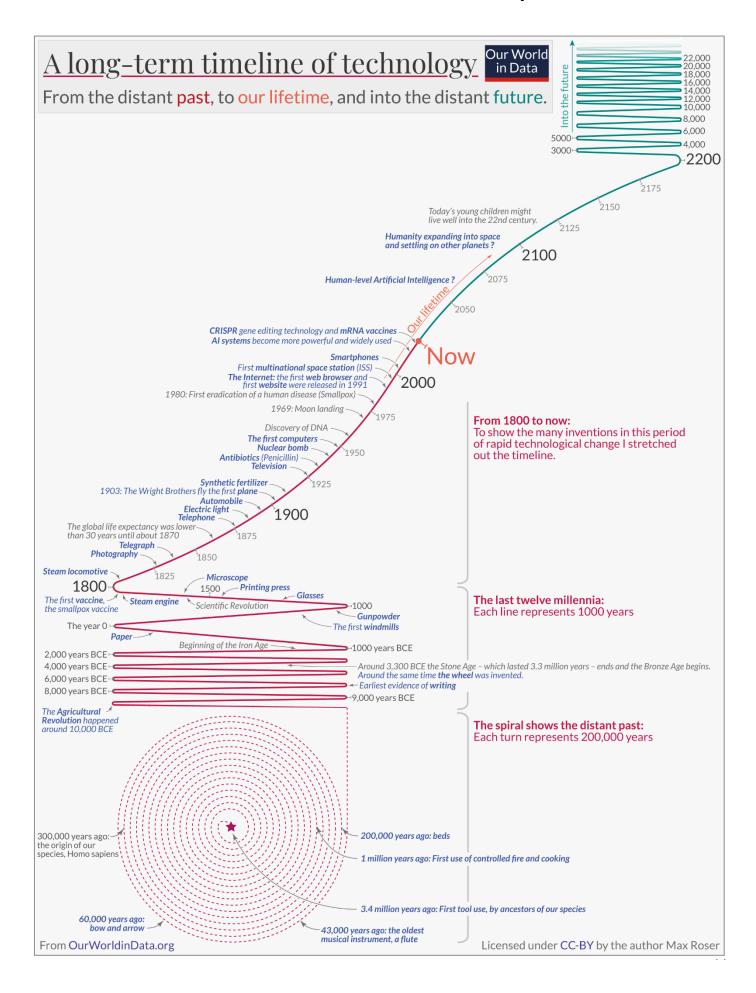
- 2. Which technology promoted the rapid spread of information and ideas in the 19<sup>th</sup> century?
  - a. the radio
  - b. the television
  - c. the telegraph
  - d. the internet
- 3. Which of the following is a significant milestone in the history of computing?
  - a. the invention of the abacas
  - b. the development of the first electronic calculator
  - c. the creation of the first programmable computer
  - d. all of the above
- 4. Which technology revolutionised personal computing in the 1980's?
  - a. the mainframe computer
  - b. the supercomputer
  - c. the minicomputer
  - d. the personal computer
- 5. How has the development of smartphones impacted society in the 21<sup>st</sup> century?
  - a. decreased communication abilities
  - b. improved access to information and communication
  - c. increased reliance on landline phones
  - d. reduced screen time among individuals

**3**. In pairs decide which has been the most important technological development and which has been the least important and give reasons for your choice. Share your answers with the rest of the class and take a vote.

#### Most important:

#### Least important:

#### Victorian Student's Parliamentary Program 2024 Online Secondary School Convention



## Activity 4: DECODING THE WORLD OF TECHNOLOGICAL DEVEVELOPMENTS – VOCABULARY and KNOWLEDGE BUILDER

#### **Learning Intentions**

We will familiarise ourselves with the complex terms and concepts used in technology including artificial intelligence today.

#### **Success Criteria**

I can understand and explain the specific language used in technology today.

#### **Task Instructions:**

1. Match the term with the correct definition for the first task. (first one has been done for you)

2. With another student complete the second task and then share your answers with the class.

3. For the third task read the passage, answer the questions and then contribute to a class discussion about artificial intelligence.

#### 1. Match the term with the correct definition

Term	Definition	Correct Match
<b>1.</b> Algorithm	A. The process of converting information or data into a code to stop unauthorised access	I. A set of rules or instructions using a series of steps to solve a problem or specific task
2. Automation	<b>B.</b> An interactive experience that can be similar or different to the real world	
3. Cloud Computing	<b>C.</b> The process of designing and building a workable computer program	

Term	Definition	Correct Match
4. Cybersecurity	D. A type of artificial intelligence that allows software applications to become more accurate in predicting outcomes	
5. Machine Learning	E. Large volume of data that cannot be processed using traditional software	
6. Virtual Reality	F. An enhanced version of reality created by the use of technology to overlay/cover digital information on an image of something being viewed through a device	
7. Augmented Reality	G. The practice of protecting systems, networks and programs from digital attacks	
8. Coding	<b>H.</b> The use of technology to control and monitor tasks without human intervention	
9. Encryption	I. A set of rules or instructions using a series of steps to solve a problem or a specific task	
<b>10.</b> Big Data	J. Practice of using a network of remote servers hosted on the internet to store, manage and process data	

#### 2. Pair and Share:

1. What do you think artificial intelligence means?

2. How do you think artificial intelligence could be useful in the classroom?

3. List 3-5 ways you already use artificial intelligence in the classroom.

#### 3. Reading comprehension task - individual work

Artificial intelligence is a branch of computer science that focuses on creating machines that are capable of intelligent behaviour. It refers to the ability of a computer to think and learn. Al can be used to perform tasks that are usually done by people such as processing language, problem solving and learning. Al is a tool that is used in many ways in the world around use today. Examples of Al include Alexa or Siri, self-driving cars and facial recognition technology on your smart phone. Al is used to diagnose patients based on medical scans and astronauts use Al models to detect exoplanets. (planets outside the solar system).

Al can improve the learning experiences of students in the classroom by personalizing their learning. Al tools can adapt to individual student needs providing more tailored instructions and support.

However there are still some issues about the use of AI in the classroom including privacy concerns especially as AI systems collect and analyze or study large amounts of student data. There is also a concern about the lack of human interaction with a growing dependence on students doing their learning through computer devices.

Although there are challenges, AI still does have the potential to support the learning of students in various ways. Adaptive learning platforms (an educational method) use AI algorithms to adjust the pace and content of instructions based on individual student performance. Students receive immediate feedback on their work allowing them to track their own progress and make improvements. AI tools like chatbots and virtual tutors provide additional support outside of the traditional classroom setting for students based on their very own needs.

1. In your own words explain 3 things that AI can do.

2. Provide one argument for and one against the inclusion of AI as a learning tool in the classroom.

3. Explain an AI tool you are familiar with – what did you like about it? What did you not like about it?

# Activity 5: CONSOLIDATING WHAT THE CLASSROOM OF THE 21 CENTURY LOOKS LIKE FOR BOTH TEACHERS AND STUDENTS

#### **Learning Intentions**

We will strengthen our understanding of the key features of a classroom in the 21st century.

#### Success Criteria

I can interpret the data in relation to technological advances in the 21<sup>st</sup> century classroom and explain the technology tools that teachers currently use to help students learn.

#### Task Instructions:

#### Complete both tasks which involve:

**a.** Studying an infographic or a visual representation of information data to identify the positives, the negatives and interesting features of the data.

**b.** Reading the article on Education 2.0 Blueprint for the 21<sup>st</sup> Century classroom and summarising the key points of each new age teaching method.

#### a. Infographic Link:

The 21st Century Classroom (pressidium.com)

#### **PMI CHART**

PLUS	MINUS	INTERESTING

#### b. Link to the article:

Education 2.0: Blueprint for the 21st-century classroom - The Sunday Guardian Live

#### Provide the key points the article makes for each of the following:

#### 1. FLIPPED CLASSROOM

#### 2. SKILL-BASED LEARNING

#### 3. GAMIFICATION

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#### 4. VIRTUAL WHITEBOARDS

#### 5. LEARNING MANAGEMENT SYSTEMS

#### 6. PROJECT-BASED LEARNING

## Activity 6: UNPACKING THE ARGUMENTS <u>FOR</u> AND <u>AGAINST</u> THE TOPIC OF WHETHER TECHNOLOGICAL ADVANCEMENTS SUCH AS AI SHOULD BE INCORPORATED INTO THE CLASSROOM

#### **Learning Intentions**

We will examine a range of arguments **for** and **against** the topic of whether technological advancements such as AI should be incorporated into the classroom.

#### Success Criteria

I can outline the arguments **to support** or **to oppose** technological advancements such as AI being incorporated into the classroom.

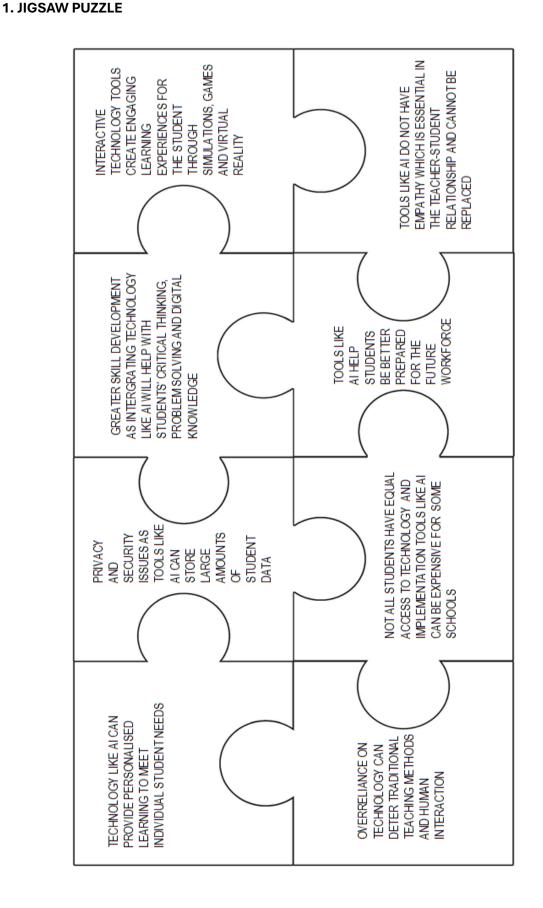
#### **Task Instructions:**

1. Pair and Share Activity – cut out the jigsaw pieces and place them in the correct column to either support or oppose the use of technological advancements including AI in the classroom.

2. You will be allocated an article to read. Look for the arguments that support or oppose this topic and add them to your list.

3. Share in the information with the rest of the class.

4. Complete the exit ticket to summarise your point of view on this topic.



ARGUMENTS - that support technological	ARGUMENTS - that oppose technological
advancements such as AI being incorporated into	advancements such as AI being incorporated into the
the classroom	classroom

#### Articles relevant to the topic:

#### **ARTICLE 1:**

5 Pros and Cons of AI in the Education Sector | Walden University

#### **ARTICLE 2:**

The Pros and Cons of AI In Education and How It Will Impact Teachers In 2024 | ClassPoint

#### ARTICLE 3:

The Risks and Benefits of Al in Schools (safeonsocial.com)

#### **ARTICLE 4:**

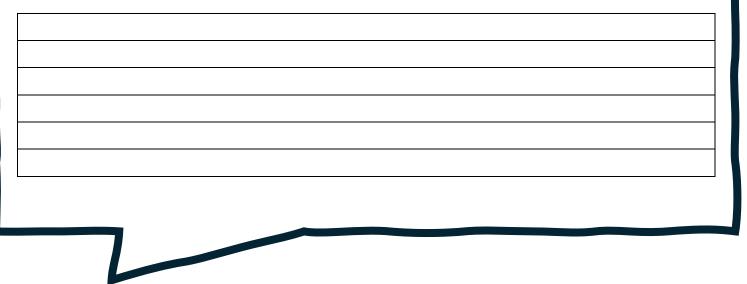
Al In the Classroom: Pros, Cons and The Role of EdTech Companies (forbes.com)

#### EXIT TICKET:



(Share your opinion of this topic after the pre-convention activity/activities)

I AGREE/DISAGREE THAT TECHNOLOGICAL ADVANCEMENTS SUCH AS AI SHOULD BE INCORPORATED INTO THE CLASSROOM BECAUSE:



### Activity 7: WHAT CAN STUDENTS DO IN THE CLASSROOM WITH AI?

#### Learning Intentions

We will understand some of the AI classroom tools we can use to help us with our learning.

#### **Success Criteria**

I can explain what ChatGPT is and how it can be used in the classroom.

#### **Task Instructions:**

Complete each of the three tasks which involve watching two YouTube Clips and reading student comments about the use of AI tools to be able to write your own opinion on the use of these tools as part of your learning.

#### 1. Behind the News

Open the following link, watch the clip, and complete the table:

#### ChatGPT - Behind the News (abc.net.au) (4m 28s)

List the opinions of each of the following people in relation to the use of ChatGPT in the classroom:

Person	Opinion
Dr Feras Dayoub – University of Adelaide	
Lisa Rodgers – Western Australian Education	
Department	
Professor George Siemen - University of South	
Australia	

#### 2. PILOT PROGRAM IN USA

Open the following link, watch the news report, and answer the questions that follow:

Al education tools are helping students learn, grow and gain confidence (youtube.com) (3.31 minutes)

#### Victorian Student's Parliamentary Program 2024 Online Secondary School Convention

a. What AI tool is being used by the students in the First Elementary School in New York?

b. Has it been a successful pilot program? Why/Why not?

c. What feedback did the 7<sup>th</sup> Grader provide about the AI tool the class was using?

d. How has Anna Serans, the teacher adapted to using the AI tool in her classroom?

e. What do the safety protocols built into the AI tool do?

f. Would you be keen to use this AI tool? Give reasons for your answer.

#### 3. STUDENT FEEDBACK ON THE USE OF ChatGPT in the classroom

The following comments have been sourced from the article in the New York Times about the use of AI in the classroom:

#### <u>Link:</u>

What Students Are Saying About Learning to Write in the Age of A.I. - The New York Times (nytimes.com)

Read the comments and then answer the questions that follow:

In order to write, we must first be able to think on our own which allows us to be self-sufficient. With the frequent use of A.I., our minds become reliant on given information rather than us thinking for ourselves. I absolutely believe that learning to be a good writer still matters even in the age of Artificial Intelligence.

#### <u> Jordyne</u>

I have never personally used ChatGPT as I believe no robot can recreate the creativity or authenticity humans achieve in writing ... Even with growing advances in technology, AI can only create with the information it already knows, which takes away the greatest quality writers have: creativity.

#### — <u>Stella</u>

When you write any sort of persuasive essay or analysis essay, you learn to communicate your ideas to your audience. This skill can then be applied to your daily life. Whether it's talking to your teachers, writing an email to your boss, or sending a text message to your friends, writing and communication is a fundamental ability that is needed to clearly and concisely express yourself. This is something that A.I. cannot help you with.

#### — <u>Mara F.R.</u>

Sometimes I use A.I. programs such as ChatGPT to help with typing and communication. The results vary, but overall, I find it helpful in generating creative ideas, cleaning up language, and speeding up the writing. However, I believe it is important to be careful and filter the results to ensure accuracy and precision. Al tools are valuable aids, but human input and insight are still needed to achieve the desired quality of written communication.

#### — <u>Zach</u>

In my opinion, learning to be a good writer absolutely still matters in the age of AI. While artificial intelligence can assist with certain aspects of writing, such as grammar and syntax checking, it cannot replace the creativity, critical thinking, and emotional intelligence that we human writers bring to the table. Another reason is that storytelling, persuasion, and the art of crafting a compelling narrative are skills deeply rooted in human intuition and empathy. A

good writer can connect with readers on a personal level, inspiring thoughts, feelings, and actions. Al may enhance efficiency, but it cannot replicate the authentic voice and unique perspective that a human writer brings to their work.

#### — <u>McKenzie</u>

I firmly believe that learning good writing skills develops communication, creativity, and problem-solving skills. A.I. can also be used as a tool; I have used it to ask practice questions, compare my answers, and find different/better ways to express myself. Sure, having my essay written for me in seconds is great, but come time for an interview or presentation later on in my life I'll lack the confidence and ability to articulate my thoughts if I never learn how.

#### - CC

#### Question:

How comfortable are you using an AI tool like ChatGPT to help you with your schoolwork and homework? Give reasons for your answer.

\*Write your opinion below and then share it with another student in the class.

### Activity 8: ARTIFICIAL INTELLIGENCE IN EDUCATION AND WHAT THE MEDIA IS SAYING -INVESTIGATION TASK

#### **Learning Intentions**

We will understand the arguments and evidence that is available through the media on the use of AI tools by students in the classroom.

We will draw some conclusions on whether students should be taught to use AI tools in the classroom.

#### **Success Criteria**

I will understand the arguments for and against the use of AI tools by students in the classroom.

#### Task Instructions:

Read the article/articles (**1-3**) you have been given and answer the questions that follow. Alternatively, complete the mind map that has been provided by listing 4 key points in each box that the/each article makes about the use of artificial intelligence as a classroom tool for students.

#### **Differentiated Task:**

#### Task Instructions:

Read Article 4 and demonstrate your understanding of the key points by completing the Multiple-Choice Quiz under the link to the article.

#### Article 1:

Artificial intelligence in schools shouldn't be feared. It can be a force for positive change (theage.com.au)

#### **Questions:**

1. What does the heading of the article suggest to you?



#### 2. List some of the arguments the journalist makes in favour of the use of AI tools by students.

#### 3. What should parents do in relation to the use of these AI tools?

#### Article 2:

Artificial intelligence such as ChatGPT to be allowed in Australian schools from 2024 | The Guardian

#### **Questions:**

#### 1. What decision did the Education Ministers in Australia make regarding artificial intelligence and education?

2. Why does each Australian state have different laws in relation to education?

**3.** List two findings of research into the use of AI tools by students in the classroom.

4. What do schools need to do to support the use of more AI tools in the classroom?

#### Article 3:

Al can help - and hurt - student creativity (theconversation.com)

**1.** Provide one argument for and one argument against the use of AI tools like ChatGPT in the classroom by students.

2. How do students view the use of AI to help them with their schoolwork?

3. What are the current challenges or issues that schools face with AI?



#### Article 4:

Al is getting very popular among students and teachers, very quickly (cnbc.com)

#### **Multiple Choice Quiz**

1. What percentage of teachers are familiar with ChatGPT according to the poll mentioned?

- a. 65%
- b. 79%
- c. 92%
- d. 54%

2. How much did the percentage of K-12 students familiar with ChatGPT rise to?

- a. 37%
- b. 48%
- c. 75%
- d. 62%

3. What percentage of teachers use ChatGPT at least weekly?

- a. 20%
- b. 46%
- c. 68%
- d. 55%

4. Which group had the most favourable view of AI chatbots according to the poll?

- a. Teachers
- b. Students
- c. Undergraduates
- d. Parents

5. Who has been working with Newark, New Jersey's school district to test ChatGPT for education?

- a. Sam Altman
- b. Greg Brockman
- c. Sal Khan
- d. Ethan Mollick

6. What is the estimated range of cost per user for school districts using AI according to Khan?

- a. \$5-\$15
- b. \$35-\$45
- c. \$20-\$30
- d. \$50-\$60

7. How many hours per week did Khan's research save teachers?

- a. 2-5 hours
- b. 10-15 hours
- c. 5-10 hours
- d. 15-20 hours

8. What is one major reason teachers provided for not using AI?

- a. Lack of interest
- b. Lack of resources
- c. Lack of training
- d. Lack of time

9. What is the focus when considering technology in education according to Khan?

- a. Cost
- b. Use case
- c. Brand
- d. Availability

10. Which group showed a decline/drop in favourability towards AI chatbots?

- a. Students
- b. Parents
- c. Undergraduates
- d. Teachers

11. What percentage of teachers received training on AI chatbots according to the poll?

- a. 10%
- b. 50%
- c. 25%
- d. 75%

12. How do teachers mainly use AI according to the poll?

- a. Create ideas for classes
- b. For personal use only
- c. Create promotional content
- d. None of the above

13. What is Mollick's overall sentiment towards AI in education in the long term?

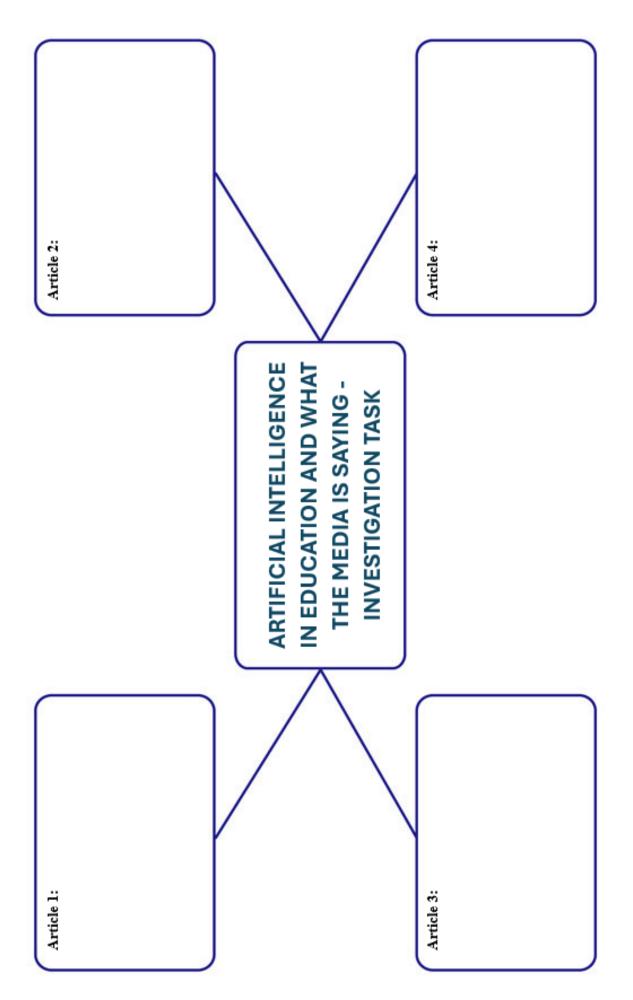
- a. Neutral
- b. Positive
- c. Negative
- d. Indifferent

14. What did Khan say about the use of AI tools for teachers?

- a. It adds more burden
- b. It saves time
- c. It complicates teaching
- d. It has no impact

15. What is the main concern regarding AI and cheating in education?

- a. Increased workload
- b. Decreased accuracy
- c. Potential cheating
- d. Lack of monitoring



# Activity 9: THE EDUCATION MINISTERS AI FRAMEWORK FOR SCHOOLS READING COMPREHENSION ACTIVITY

#### **Learning Intentions**

We will understand the Minister for Education's AI framework which is being released across Australia schools this year.

#### **Success Criteria**

I can explain the key point of this media release.

I understand the importance of this document in relation to my own learning and school.

**Task Instructions:** 

Read the media release and answer the questions that follow.

#### Link:

Al framework for schools released | Ministers' Media Centre (education.gov.au)

1. Who made up the task force that produce this Framework?

2. Explain the purpose behind this framework.

3. Identify two key issues that are important in this framework? Why do you think they are important?

4. List three arguments in favour of using more AI in the classroom.

5. Do you support this decision to increase the use of AI in the classroom? Why/Why not?



### POST CONVENTION ACTIVITIES

#### Activity 1: Where do you stand?

Write a 250–300-word argumentative piece about whether you think technological advancements such as AI should be incorporated into the classroom. Be clear about your arguments and point of view referring to the debate or pre-convention material to support your opinion.

#### Activity 2: Sell it

Create a video or do a live presentation of the topic. Select one or two arguments that represent you opinion and create an advertisement around these to present to the rest of the class to gain their support on your point of view.

#### Activity 3: One- Question Interview

Think of a question on this topic that you can ask your teachers about the use of technology in the classroom. Conduct a quick interview with at least 3 of your teachers. What did you discover? Write a paragraph to summarise your findings and then share with another student in the classroom.

Examples of questions could include:

- What technology do you currently use in the classroom as part of your teaching?
- What do you see as the role of AI in your teaching of students at the school?
- Should technological advancements be incorporated in the classroom more?

#### Activity 4: Traffic Lights

You will be issued with three sticky notes and a picture of traffic lights.

Write down one thing you have learned about this topic (green light), one thing you are still thinking about on this topic (yellow light) and one thing that you are struggling with (red light) on the sticky notes. Share with the rest of the class to identify common opinions and where you all differ. Take a class vote to see if students are in favour of or against technological advancements such as AI being incorporated in the classroom.

