UNSW Bragg Student Writing Competition
Student Worksheet

Name: _____

In preparation for writing your essay for the UNSW Bragg Student Science Writing Competition, you can complete this student worksheet. The first part of the worksheet refers to the story *The Machine Generation* by Bianca Nogrady, published in *The Best Australian Science Writing 2017* by NewSouth, an imprint of UNSW Press. You can download the article pdf through the Bragg competition website: bit.ly/Machine_Bragg

The title

1. Consider the title of the story and suggest what you think the article might be about. What information does the title convey about the story?

   _____
   _____
   _____

Structure and style

2. Read the story from beginning to end. Describe what you liked about this story.

   _____
   _____
   _____
   _____
   _____
   _____

3. Read the first line of the story. Does it grab your attention? How has Bianca Nogrady tried to engage you as a reader at the beginning of the piece?

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4. Has Bianca used concise sentences that go straight to the point? Give some examples of sentences she has used that are succinct and don't contain any excess words.

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5. Does Bianca's story have a distinct beginning, middle and end? Complete the following table to summarize the information given in these three main sections of the story.

Section of the text	What are the features of this section of text? What has Bianca written about specifically in this section of text?
Beginning	
Middle	
End	

6. Has Bianca used many creative adjectives to make the story engaging? Give some examples.

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7. Where has Bianca used active verbs to draw the reader in? Find some examples in the text and write them here.

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Text type

8. Do you think this text is a news report, an opinion article or a piece of persuasive text? Give reasons that support your choice.

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Content

9. The story discusses examples of recent technologies, such as driverless trucks and the da Vinci robotic surgical system. How would you define technology in its broadest sense?

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10. Consider the following examples from our everyday lives and decide whether you think they are technology or not: drinking cup, pen, the ink in a pen, reading glasses, the lenses in reading glasses, antibiotics, genetically modified food, brewed beer, plant and animal breeding. Justify why you placed each item or process in each column. Did other class members have similar lists?

Technology	Not technology

11. How does technology extend our senses so we can know more about the world around us? Give some examples.

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12. How does technology assist scientists? Give some examples.

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13. How does science assist technology? Give an example.

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14. Can technology exist without science? Explain your thinking.

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15. When did technology begin? Did stone age people use technology – did they understand the science behind any technology they used? Share your ideas.

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16. After having considered these questions about technology, have any of your ideas changed how you think about technology, or how you defined it in Question 9? Explain.

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Generating ideas

Activity 1 – Generating ideas about different kinds of science writing

How do you learn about science and technology? What have you read or listened to lately that has:
- helped you understand a scientific idea or piece of technology
- explained how a piece of technology works
- discussed the relevance and/or application of technology to society
- informed you of a scientific event or a new piece of technology

or
- described someone's opinion of an aspect of science or technology?

In this activity, you will be able to elicit your own ideas and experiences of the role of science writing, compare your ideas to your peers' ideas, and look for trends in the examples that come to mind.

Task 1 – Brainstorming examples of science writing
Think about all the different pieces of science writing you have encountered recently and record them here. Think broadly here, including examples encountered both at school, as well as examples from everyday life.

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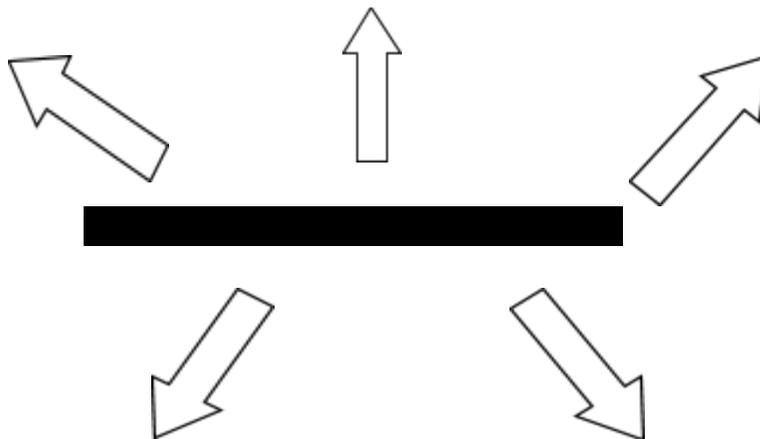
Task 2 – Sharing ideas

Share your examples with the rest of the class. How similar or different were they? Discuss which examples were the most informative and relevant to your lives, stating why you think they had such an impact – was it the subject matter or the writing style, or a combination of both?

Task 3 – Bringing the thinking together

In the examples listed in Task 1 and discussed in Task 2, identify examples of different text types. For example, how many were reports, reviews or speeches? How many were opinion pieces and how many contained information that was strictly factual? Look for common trends in writing methods or styles.

Record your notes and examples of the different text types and approaches to writing.

Understanding style

Activity 2 – Exploring elements of science writing

What makes for an engaging, informative and persuasive piece of science writing? Which elements of a piece of writing can the writer take creative control of to develop their style? How can the text type or the topic material influence the style of the writing?

In this activity, you will consider different elements of style and explore some examples of engaging and informative science writing of your own choice.

Task 1 – Analysing style
Go back over the story *The Machine Generation* and see if you can identify any of the following specific style elements. You can highlight them in the text itself as you go and then collate them here in the following table. See the reference notes on writing style to help guide you.

Table 1 – Writing style analysis

Style element	Examples in the text
Word choice	
Sentence structure	
Paragraph structure	
Voice	

The writing style helps to convey meaning in an engaging way and contains several elements worth examining. When reviewing a text look for the following:
1. Word choice.
   a. Do the chosen words provide concise and precise meaning?

      b.   Are active verbs used?

      c.   Are there creative adjectives?

      d.   Is there use of polysyllabic words?

2. Sentence structure
   a. Does the sentence have fluency, that is, does it flow and have rhythm?
   b. Are there examples of sentences of different lengths?
   c. Is the sentence structure tight with no excessive words?
   d. Is the opening sentence engaging and have a hook to draw the reader in?
   e. Are sentences clear and concise?

3. Paragraph structure
   a. Does each paragraph contain a single idea?
   b. Does each sentence link to the next?
   c. Is the first main paragraph strong?
   d. Does the last paragraph conclude the main idea?

4. Voice
   a. Is it a goal of the writing to convey the writers' personality? If so,
   b. Does the writing effectively convey the writers' personality?

Task 2 – Considering text type

Research the features of the following three text types and summarize your research by completing the table below. Which text type do you think *The Machine Generation* is an example of? Justify your choice in the right-hand column.

Table 2 – Text types

Text type	Definition and features	Examples (can include those from Activity 1 as well as your own research)	Examples from the *The Machine Generation* – with justification
Persuasive			
News story			
Opinion piece			

Task 3 – Exploring within your own interests

Find another piece of science writing about technology that engages you because of its interesting subject matter and rich style. Discuss this text in a review that can be posted online or personally shared with others in conversation.

Developing your essay

Activity 3 – Analyzing your own writing

Have you started writing yet? How are your ideas developing?

Once you have started your own writing you can analyze it for the following:

a. Text type – are you writing an opinion piece, news report or persuasive text? What features will you be aiming for to keep your writing consistent with your chosen text type? Are those features already identifiable in your piece?

b. Style – as you write think about how you can introduce strong and obvious style elements into your piece to give it an engaging beginning, middle and end. Once you have a draft, use Table 2 from Activity 2 to analyze the presence of the various style elements. Be creative about how you can introduce any additional elements. Use any tools you have, such as a thesaurus for finding words that help the flow and fluency of the writing.

c. Voice – does your piece require a voice? If so, how can you achieve this?

d. Research – have you included your summarized research and checked the facts? Don't forget to keep a bibliography of all references used.

e. Proofing - Check for correct capital letters, punctuation marks and spelling. Have your work proofed by someone else as well as yourself. Keep all drafts of your work in case you need to revise or rework certain previously discarded features.

f. Title – does the title both represent the article as well as engage the reader?

Have fun!