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| **Investigating Science Summary Scaffold - Module 8** |
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| **Inquiry Question 1: How do science-related events affect society’s view of science?** |
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| Summarise the main events of the Chernobyl Nuclear meltdown |
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| Identify the short-term impacts of the Chernobyl meltdown |
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| Identify the long-term impacts of the Chernobyl meltdown |
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| How have nuclear meltdowns affected the public image of nuclear science |
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| Create a flow diagram of how Edward Jenner developed the smallpox vaccine |
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| Describe the effect of the development of the smallpox vaccine on the public image of science |
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| Create a timeline of the significant events in the development of flight |
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| Describe the effect of the development of flight on the public image of science |
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| Describe the positive impacts of damming rivers |
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| Describe the negative impacts of damming rivers |
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| **Inquiry Question 2: Why is scientific research regulated?** |
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| Draw and annotate a diagram to explain the process by which sex cells and embryos are modified |
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| Identify medical uses of genetic modification of sex cells and embryos |
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| Describe the process of genetically modifying food |
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| Compare the benefits and risks of GMO foods |
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| Describe the regulation of GMO foods in Australia and other countries |
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| Outline the international code of conduct relating to cloning |
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| Outline the ethical issues related to cloning |
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| Describe uses of nuclear products |
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| Compare the processes and products of power and research nuclear reactors |
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| Outline the risks of nuclear products and processes |
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| Explain the regulation of the Nuclear Industry in Australia |
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| Outline the ethical issues related to the use of radiation |
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| **Inquiry Question 3: How do economic, social and political influences affect scientific research?** |
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| Outline the funding spent on space exploration |
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| Is the money spent on space exploration worth it? List 3 reasons to support your point of view |
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| Compare the positive and negative impacts of space exploration on society |
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| How do government budgets and limited time priorities influence scientific research? Explain an example |
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| How do university budgets influence scientific research? Explain an example |
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| How do corporations influence scientific research? Explain an example |
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| Outline the funding of social issues eg addressing poverty and global food supply |
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| Describe two immunisation programs that have had a positive impact on world health |
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| Explain benefit sharing of indigenous intellectual and cultural property and how it is important to scientific research |
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| Outline how three different surgical devices have improved human wellbeing |
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| Outline how 3 advances in surgical techniques have improved human health |
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| Explain examples of how personal, cultural and socioeconomic perspectives can influence research and perceptions about diet |
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| Do the benefits of GMO foods outweigh the risks? Give reasons |
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| Explain how GMO foods have aided economic development and human progress |
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| Outline the process of wastewater treatment |
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| Describe how access to clean water has improved world health |
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| Explain how nuclear power generation has aided economic development and human progress |
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| Do the benefits of nuclear power generation outweigh the risks? Give reasons |