



Foundational Lesson #5: Futures Wheel

Teach the Future

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Standards

§110.64. Advanced Broadcast Journalism I, II, III (One-Half Credit to One Credit). *(Also Photojournalism)*

(c) Knowledge and skills.

(1) The student demonstrates an understanding of broadcast media development, law, and responsibility to cover subjects of interest and importance to the audience. The student is expected to:

(F) explore the impact of broadcast formats on society

§112.34. Biology, Beginning with School Year 2010-2011 (One Credit).

(c) Knowledge and skills.

3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:

(D) evaluate the impact of scientific research on society and the environment

§112.36. Earth and Space Science, Beginning with School Year 2010-2011 (One Credit).

(c) Knowledge and skills.

(11) Solid Earth. The student knows that the geosphere continuously changes over a range of time scales involving dynamic and complex interactions among Earth's subsystems. The student is expected to:

(E) evaluate the impact of changes in Earth's subsystems on humans such as earthquakes, tsunamis, volcanic eruptions, hurricanes, flooding, and storm surges and the impact of humans on Earth's subsystems such as population growth, fossil fuel burning, and use of fresh water.

§112.37. Environmental Systems, Beginning with School Year 2010-2011 (One Credit).

(c) Knowledge and skills.

(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:

(F) evaluate the impact of waste management methods such as reduction, reuse, recycling, and composting on resource availability.

7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:

(D) analyze and make predictions about the impact on populations of geographic locales due to diseases, birth and death rates, urbanization, and natural events such as migration and seasonal changes.

(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:

(E) evaluate the effect of human activities, including habitat restoration projects, species preservation efforts, nature conservancy groups, hunting, fishing, ecotourism, all terrain vehicles, and small personal watercraft, on the environment;

(F) evaluate cost-benefit trade-offs of commercial activities such as municipal development, farming, deforestation, over-harvesting, and mining;

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- (G) analyze how ethical beliefs can be used to influence scientific practices such as methods for increasing food production;
 - (H) analyze and evaluate different views on the existence of global warming;
 - (I) discuss the impact of research and technology on social ethics and legal practices in situations such as the design of new buildings, recycling, or emission standards;
 - (J) research the advantages and disadvantages of "going green" such as organic gardening and farming, natural methods of pest control, hydroponics, xeriscaping, energy-efficient homes and appliances, and hybrid cars;

§112.38. Integrated Physics and Chemistry, Beginning with School Year 2010-2011 (One Credit).

(c) Knowledge and skills.

5) Science concepts. The student recognizes multiple forms of energy and knows the impact of energy transfer and energy conservation in everyday life. The student is expected to:

- (I) critique the advantages and disadvantages of various energy sources and their impact on society and the environment.

§113.48. Social Studies Research Methods (One-Half Credit), Beginning with School Year 2011-2012.

(c) Knowledge and skills.

(2) Social studies skills. The student applies a process approach to a research topic, applying the ideas, theories, and modes of inquiry drawn from the social sciences in the examination of persistent issues and social questions. The student is expected to:

- (K) make predictions as to future actions and/or outcomes based on conclusions of research

6) Social studies skills. The student understands the principles and requirements of the scientific method. The student is expected to:

- (D) justify a conclusion with supporting evidence and make predictions as to future actions

Guiding questions

- How many consequences are there from a change?
- Are the consequences always contained in the same STEEP category or in other STEEP categories?
- Is there a change that has consequences for all STEEP categories?

Terms

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|----------|--------------|---------------|
| • Change | • Prediction | • Result |
| • Future | • Forecast | • Outcome |
| | | • Implication |
| | | • Consequence |

Learning objectives

- Given a change, construct a Futures Wheel
- Select an individual, community or organization and Identify the 2-3 most important implications for that selection
- Write a one page story about a day in the life of that selection if those implications come true

Pre-requisites

Lesson on the drivers of change