

LINCOLN PUBLIC SCHOOLS
Technology/Engineering Learning Expectations: Grade 7

Strand:

Technology/
Engineering

**Mass Standard
TE3.4**

Identify and explain how symbols and icons (e.g., international symbols and graphics) are used to communicate a message.

See also: TE1.1, TE1.2, TE1.3, TE2.1, TE2.2, TE2.3, TE2.4, TE2.5, TE2.6, TE3.1, TE3.2 and TE3.3

Big Ideas

- ❑ Packaging plays an important role in the marketing and distribution of products.

Key Outcomes

- ❑ Students will demonstrate an understanding of the **role packaging plays in the marketing and distribution of products** by designing a new cereal package to be marketed by a large breakfast cereal company toward a specific age group.

Essential Knowledge and Skills

Students will know and/or be able to:

- ❑ The design, shape, colors, and specific materials selected reflect the considerable effort made by companies to produce both functional and attractive packaging.
- ❑ The functional aspects of package design call for creating a package that is easy to handle and store, durable, not readily soiled, neatly stackable, and suitable for its contents.
- ❑ Communicate and express ideas through a variety of materials and techniques.

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**Mass Standard
TE4.2**

Explain and give examples of the impacts of interchangeable parts, components of mass-produced products, and the use of automation, e.g., robotics.

**Mass Standard
TE4.3**

Describe a manufacturing organization, e.g., corporate structure, research and development, production, marketing, quality control, distribution.

See also: TE1.1, TE1.2, TE1.3, TE2.1, TE2.2, TE2.3, TE2.4, TE2.5, TE2.6, TE4.1 and TE4.4

Big Ideas

- ❑ Technological progression is driven by a number of factors, including individual creativity, product and systems innovation, and human wants and needs.
- ❑ Compelling and controversial issues are associated with the acquisition, development, use, and disposal of resources.

Key Outcomes

- ❑ Students will demonstrate an understanding that **technology helps people manufacture goods and services to more people in less time, with greater accuracy and improved product uniformity** by designing packaging and mass production systems to make a specific product.

Essential Knowledge and Skills

Students will know and be able to:

- ❑ Develop, refine, evaluate, and select product ideas that address manufacturing needs and opportunities.
- ❑ How to change industrial materials into finished products.
- ❑ Explore methods used to monitor and correct performance of technological systems.