

K'NEX ACTIVITY

Communication Technology

NATIONAL STANDARDS

- #9 - Students will develop an understanding of the attributes of design
- #11 - Students will develop abilities to use apply the design process
- #17 - Students will develop an understanding of and be able to select and use information and communication technologies
- #19 - Students will develop an understanding of and be able to select and use manufacturing technologies

NATIONAL BENCHMARKS

- #9-J engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.
- #11-Q Develop and produce a product or system using the design process.
- #17-N Information and communication systems can be used to inform, persuade, entertain, control, manage, and educate.
- #17-P There are many ways to communicate information, such as graphic and electronic means.
- #19-R Marketing involves establishing a product's identity, conducting research, on its potential, advertising it, distributing it, and selling it.

ACTIVITIES

- Students will use sketching techniques to develop a working exploded assembly view for a given product.
- Students will measure and develop a working drawing suitable for production on CAD program or on drawing board with equipment.
- Students will develop a container (box) suitable of holding the given product with an easily manipulated opening.
- Students will develop a graphic for the box capable of drawing attention to the contents of the box to a targeted age group.
- Students will be aware of design influences, product development steps, graphic communication techniques, and marketing methods currently being used in industry.

SHOW ME STANDARDS

Performance Standards:

- Goal # 3-2 develop and apply strategies based on ways others have prevented or solved problems
- Goal # 3-6 examine problems and proposed solutions from multiple perspectives
- Goal # 3-7 evaluate the extent to which a strategy addresses a problem

Knowledge Standards:

- MATH # 4 geometric and spatial sense involving measurement
- SOCIAL STUDIES # 4 economic concepts
- SCIENCE # 7 processes of scientific inquiry
- FINE ARTS # 1 process and techniques for the production, exhibition of visual artwork

ASSESSMENT

- Ease of assembly by others, following assembly exploded drawing produced
- Product fits easily into designed box and opens easily
- Product box attracts attention from a target audience
- All work done cooperatively with others in group, worked as a team member