

HOW TO SOLVE PROBLEMS USING TECHNOLOGY?

name _____
class _____ team _____ date _____

Technology is designed with a purpose of solving problems; it has to meet human needs and wants. We use technology in so many ways; at least everyone uses technology in one-way or another. A problem exists when we encounter difficulty; problem solving is a human behavior, though our approach varies from person-to-person. During the process of solving a problem, the following is taken into consideration;

- 10 • Develop an understanding of the problem through observation.
- Devise a plan for solving that problem.
- Implementing the plan.
- Evaluating the plan.
- 15 • Technology will be used in all those four stages of problem solving, however, for you to easily understand how to solve problems using technology

20 the problem is traffic jam in the city and on the right, you can see that one of the solutions of solving this traffic jam is by using high speed electronic trains. The problem was identified and technology was used to plan the solution and

25 implement that solution in the city. The use of high speed electronic trains has reduced traffic jam in big cities like New York.

Below are listed four basic phases you need to know about when solving problems with technology.

- 30 • **Identifying a technological problem:** During this stage, you will need to define the problem by explaining the situation that needs a technological solution, and establishing the criteria that technological system or device has to meet. Then you have to gather information needed to begin developing solutions for the problem or situation.
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- 40 • **Developing a solution:** During this phase, you will need to develop possible solutions that can solve a given problem. You will test more than one solution, until you refine the best solution to solve that problem permanently and meet the opportunity.
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- **Evaluating the solution:** At this stage, you will be modeling the best solution through testing and evaluating all proposed solutions by use of graphics, statistics and mathematical modeling techniques. For you to select the best technological solution, you will need to compare the design solutions in terms of economic, market, technical, production and environmental criteria to determine the best solution to that particular problem.
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- 55 • **Communicating the solution:** Now that you have evaluated all solutions, it is time to communicate the final solution to your team through graphical drawings, reports and mathematical means. If you agree with your team, you can now go ahead and present the solution for approval from the management or government.
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- 65 **In conclusion,** judging from the 4 steps of solving a problem using technology, you will see that the technology we are using started with an idea of solving a problem or meeting an opportunity. A person or a group of people saw the problem or the opportunity and they designed solutions of meeting that problem or opportunity. Today we have various technologies which were designed to solve simple problems, for example, social networks like Facebook.com, twitter.com have solved communication and social interaction problem.
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<http://www.useoftechnology.com/what-is-technology/>

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standards RST.6-8.1, RI.6.1, RI.6.2

Technology in our world

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There is a photo collage app on your phone that you love to use. When you updated the app it stopped working. In fact when you tap or click on it nothing happens at all.

According to what you have read on the other side of this paper - what should you now do?