TECHNOLOGY INTEGRATION MATRIX (TIM) - Teachers

		SUBSTITUTION/ EMBELLISHMENT	AUGMENTATION/ ENHANCEMENT	MODIFICATION/ INFUSION	REDEFINITION/ TRANSFORMATION
Key Aspects of a Learning Environment	**0**	**1**	**2**	**3**	**4**
D - Developing Critical-thinking and Problem-solving Skills	0 – Students do research to solve problems, with the help of technology tools.	1 - Students find, analyze, and evaluate information from different sources or from different points of view, to solve problems in different ways, using the recommended digital resources and technology	2 - Students plan, do research, analyze data, establish relationships, and draw valid conclusions, in order to solve complex problems, with the help of various digital resources and technology tools.	3 - Students evaluate their thoughts, their strengths, their challenges, and the opinions of others, and use different types of reasoning to solve problems, with the help of effective technology tools and appropriate digital resources of their own choosing.	4 - Students draw conclusions and reinvest what they have learned, in order to solve problems and make informed decisions in other circumstances, with the help of various technology tools and various digital
Example 1 ***Science***	Students conduct an experiment, using a temperature probe.	Students do a search in order to formulate a hypothesis, and then conduct the experiment.	Students analyze the data from the experiment using data-processing software, write up a report, draw conclusions, and check their hypothesis.	Students model the data, analyzing the rate of change of the mathematical model of the data.	Students conduct their experiment, check their hypothesis, analyze their results, which will be posted on the web, and prepare a presentation of their conclusions, using a presentation tool (e.g., Prezi, Glogster).
Example 2 ***Mathematical Model***	Students use the graphing calculator to model data from a manual.	Students do a Web search in order to find relevant data, and then input the data into the calculator for analysis.	Students use the graphing calculator or software (e.g., Fathom, TinkerPlots) to model and analyze data on the basis of a well-defined research question.	Students gather data with the help of digital probes, establish a corresponding mathematical model, and ascertain the validity of the model.	Students gather data with the help of digital probes, establish a corresponding mathematical model, ascertain the validity of the model, draw conclusions, and identify the limits of the mathematical model. Students then post their model on the
Example 3 ***Recycling***	Students do Google searches on recycling.	Students do searches on the websites recommended by their teacher in order to find solutions to the recycling problem at their school.	Students draw up a recycling plan for their school using tools and resources of their choosing, and present the plan with the help of the technology tools of their choice.	Students conduct a survey with the help of technology tools (e.g., SurveyMonkey, Google Forms) in order to gather ideas about recycling at school. Once the information has been gathered, the students draw up a recycling plan for their school, using tools and resources of their choosing.	Students develop a digital survey, gather information, set up a recycling plan for their school, and create a blog in order to discuss the plan's implementation and elicit feedback from other students, with the aim of improving the recycling plan.

Example 4 ***Independent Studies***	Students undertake independent studies projects on topics proposed by the teacher.	Students undertake independent studies projects on topics proposed by the teacher, and use the recommended digital resources.	Students undertake independent studies projects, choosing their own topics, and using various digital resources. Students establish relationships and draw valid conclusions.	Students undertake independent studies projects. They identify problems and suggest possible solutions, using effective technology tools and appropriate digital resources of their own choosing.	Students choose the topics of their independent studies projects. They identify problems, draw conclusions, and make informed decisions, with the help of various technology tools and various digital resources.
Example 5 ***Passion-based Learning***					Students choose topics that they are passionate about and on which they can have an impact at school, in the community, or on a global scale. They do searches or conduct their own investigations (surveys, interviews, etc.). They then present their findings via social media, YouTube, or the TED organization. Throughout the process, students can choose to use the technology that they consider to be the most effective.