

# ANESU Planning Tool Grade Cluster 6 - 8

**NETS Standard 4  
Critical Thinking,  
Problem Solving & Decision Making**  
Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

**Performance Indicator A**  
identify and define authentic problems and significant questions for investigation.

**VT GE 6-8**  
Students select appropriate digital tools and resources, including online forums, social media, and information solicited from credible sources, to identify a local, state, national, or global issue, create a problem statement, and generate questions for investigation.

**Examples**

- \* Small groups of students review recent articles in online news publications. They use an online collaboration tool to identify an issue they are concerned about, create a problem statement, and draft questions for investigation.
- \* Students select an appropriate online discussion tool to discuss the use of cell phones in school. They use an online collaborative document to develop a problem statement and questions for investigation.

DIGITAL TOOLS above may include: online news publications such as TweenTribune and local, national, and international newspapers, online collaboration tools such as Google Docs, a Moodle forum, or a wiki

**Performance Indicator B**  
plan and manage activities to develop a solution or complete a project.

**VT GE 6-8**  
Students select appropriate digital tools, including online collaborative tools, to plan and manage individual and group learning projects.

**Examples**

- \* Students use a graphic organizer to brainstorm the steps in their class project to develop an online field guide to the woods behind the school.
- \* Students use an online, collaborative tool to list the steps in their group research project about renewable energy, assign those steps to different group members, specify target completion dates, and track and monitor completion of the tasks.

DIGITAL TOOLS above may include: graphic organizers such as Inspiration, Mindomo, or Freemind, online collaborative tools such as Google Spreadsheet, Google Calendar, or Manymoon, video conferencing tools such as Skype or LNV

**Performance Indicator C**  
collect and analyze data to identify solutions and/or make informed decisions.

**VT GE 6-8**  
Students select appropriate digital tools and online resources to gather, organize, and analyze data to draw a conclusion, solve a problem, make an informed decision, and/or propose a solution to an authentic audience.

**Examples**

- \* In a study of energy, students choose to use online surveys, online databases, and/or credible websites to collect data on energy production and use in Vermont. They compile and analyze their data using spreadsheets and graphs. They report their findings and propose ideas for reducing the use of non-renewable energy on a class wiki or web site that is shared with town officials and state legislators.
- \* Students choose from a variety of tools to collect data on the motion of objects. Some use force and/or distance sensors. Others use digital video cameras to record moving objects and then review the videos frame by frame and calculate distance, velocity, and acceleration. They analyze their data with spreadsheets and graphs and summarize their findings.

DIGITAL TOOLS above may include: online survey tools such as Google Forms or Survey Monkey, spreadsheets such as Excel or Google Spreadsheet, video editing tools such as Windows Movie Maker or iMovie

**Performance Indicator D**  
use multiple processes and diverse perspectives to explore alternative solutions

**VT GE 6-8**  
Students select appropriate digital tools and resources to explore problems by collecting information from local and global communities with diverse perspectives, summarizing the results, and identifying and comparing possible solutions that could satisfy different perspectives.

**Examples**

- \* Students meet with the cafeteria manager to find out how much food the school consumes and where it comes from. They email local farms, grocery stores, trucking companies, restaurants, etc. to collect information about how much local food is available to supply the school lunch program. They summarize their findings with a spreadsheet and create a set of proposals to increase the use of local food. They share their proposals and the pros and cons of each on their class web page.
- \* Students decide whether to use email, an online discussion forum, or an online survey to collect information about whether students should be allowed to participate in sports if they have an F or D in a course. They collect data from students, teachers, administrators, and parents and use a spreadsheet to summarize their findings. They develop three different proposals and create a short video that presents the pros and cons of each. They air their video on the regional educational TV channel.

DIGITAL TOOLS above may include: spreadsheets such as Excel or Google Spreadsheet, online discussion forums such as Moodle or Facebook, online survey tools such as Google Forms or Survey Monkey, video editing tools such as Windows Movie Maker or iMovie.

**Scenarios: The Big Picture**

[Cell Phones + Driving = Accidents?](#)

[Saving Our Streams](#)

[Let's Get Serious About Fitness](#)