

# ANESU Planning Tool Grade Cluster 3 - 5

**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.

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

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

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

**VT GE 3-5**  
Students use a variety of digital tools and resources to identify a school, local, or state issue, create a problem statement, and generate questions for investigation.

**VT GE 3-5**  
Students use a variety of digital tools, selected by the teacher, to plan and manage individual or group learning projects.

**VT GE 3-5**  
Students use a variety of digital tools and resources to gather, organize, and analyze data to draw a conclusion or solve a problem.

**VT GE 3-5**  
Students use a variety of digital tools and resources, selected by the teacher, and resources to explore problems by collecting information from sources with diverse perspectives, summarizing the results, and proposing multiple solutions.

**Examples**

- \* As a class, students use a graphic organizer and an interactive whiteboard to brainstorm issues in their school about bullying. They use a word processor to draft a problem statement related to bullying and to list questions for further investigation.
- \* As a class or in small groups, students generate an online survey for other students about local environmental concerns, use a spreadsheet/ graphing tool to summarize the data, and use a word processor to draft a problem statement and questions for research.

DIGITAL TOOLS may include: graphic organizers such as Inspiration or Mindomo, word processors such as Word or Google Docs, online surveys such as Google Forms or Survey Monkey, spreadsheet/graphing tools such as Excel or Google Spreadsheet

**Examples**

- \* Students use a graphic organizer to brainstorm the steps in their individual research projects.
- \* Students use a spreadsheet, graphic organizer, or online calendar to plan the steps for their group research project on Explorers, assign those steps to different group members, specify target completion dates, and track and monitor completion of the tasks.

DIGITAL TOOLS may include: graphic organizers such as Inspiration or Mindomo, spreadsheets such as Excel or Google Spreadsheet, online calendars such as Google Calendar

**Examples**

- \* As a class, students create an online survey to poll the school and local community about their consumption of bottled water and soda. They use spreadsheets and graphs to organize and analyze the data they collect. In small groups students discuss the results and draw conclusions.
- \* Students draft a series of hypotheses comparing temperatures at different locations. They use digital probes to collect temperature data three times each day from each location, load the data into a spreadsheet, and use graphs and formulas to test their hypotheses.

DIGITAL TOOLS may include: online survey tools such as Google Forms or Survey Monkey, spreadsheet/ graphing tools such as Excel or Google Spreadsheet

**Examples**

- \* Students use a class email account to collect ideas for reducing litter at the town beach from students, teachers, administrators, parents, and other community members. They use a spreadsheet to summarize their findings, and they add a page to their class wiki to share their data and list different possible solutions.
- \* Students develop an online survey about whether students should be required to walk, bicycle, carpool, or ride the bus to school to save energy. They survey students K-12 and their parents, use a spreadsheet to summarize their findings, and create a web page where they list possible ways to satisfy the greatest number of people.

**Scenarios: The Big Picture**  
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[Outdoor Learning Spaces](#)