

Sample Questions

General Information About The Nation's Report Card

Grade 8

Technology and Engineering Literacy



National Assessment of Educational Progress

Technology and Engineering Literacy Assessment

2018 Grade 8 Sample Questions

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I. About This Sample Questions Booklet

On behalf of the National Assessment of Educational Progress (NAEP), I want to thank you for your participation in this essential measure of student achievement in the United States. NAEP tells us what students in our country know and can do in various subjects.

In 2018, eighth-grade students throughout the nation will take the NAEP technology and engineering literacy (TEL) assessment on NAEP-provided laptops and the civics, geography, and U.S. history assessments on NAEP-provided tablets. Each student answers questions in only one subject, and each NAEP assessment takes approximately 90 to 120 minutes for a student to complete (including transition time, instructions, and completion of a survey questionnaire).

As part of the NAEP assessment, students voluntarily complete brief survey questionnaires about themselves and their educational experiences in and outside of the classroom. These survey questionnaires take no more than 15 minutes to complete and are administered at the end of the NAEP assessment.

NAEP TEL results are reported for the nation, but not for individual schools or students. Answers to all student questions are confidential, and names of participating students never leave the school and are not associated with the digital assessment after the student completes it. Results of the 2018 TEL assessment will be reported as The Nation's Report Card. Assessment results are widely discussed in the press and are used by educators, researchers, policymakers, and elected officials to make decisions about education policy and funding.

This booklet includes the NAEP 2018 survey questionnaires for the grade 8 TEL assessment as well as information on sample tasks and questions in order to promote understanding of the assessment.

To review additional sample questions and answers, access the NAEP Questions Tool at <https://nces.ed.gov/nationsreportcard/nqt>. Additional information for teachers and schools can be found at <https://nces.ed.gov/nationsreportcard/educators>, including more details about the NAEP assessment and the critical role of educators in the NAEP program.

If you have any questions or comments regarding NAEP or would like to view previous report cards, please visit the NAEP website at <https://nces.ed.gov/nationsreportcard>. To learn more about NAEP digitally based assessments and view tutorials, visit <https://nces.ed.gov/nationsreportcard/dba>.

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Acting Commissioner
National Center for Education Statistics
Institute of Education Sciences

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A project of the National Center for Education Statistics (NCES), Institute of Education Sciences, U.S. Department of Education.

II. Technology and Engineering Literacy Assessment

About the Assessment

The technology and engineering literacy assessment (TEL) is an innovative, digitally based assessment that includes interactive, multimedia scenario-based tasks and is administered on laptops. TEL is designed to gauge how well students can apply their understanding of technology principles to real-life situations. During the assessment, students perform a variety of technology and engineering problem-solving tasks set in a variety of real-world contexts.

In 2014, the National Assessment of Educational Progress (NAEP) administered the first-ever assessment of technology and engineering literacy to a nationally representative sample of eighth-grade students. These same students also completed a survey on their opportunities to learn about technology and engineering in and out of school. To see results from the 2014 assessment, visit https://www.nationsreportcard.gov/tel_2014/#results/overall.

To learn more about the TEL assessment, visit https://www.nationsreportcard.gov/tel_2014/#about/overview.

To view the tutorial that students watch before they take the TEL assessment, visit <https://nces.ed.gov/nationsreportcard/tel/>.

Universal Design

NAEP's digitally based assessments, like TEL, offer more flexibility in meeting the needs of students, including students with disabilities (SD) and English language learners (ELL). Some accommodations are built-in features of the TEL assessment that are available to all students and are referred to as universal design elements. These virtual assistive tools (e.g., text-to-speech and closed captioning) make NAEP assessments more accessible and make test administration easier for schools.

Learn more about universal design for the TEL assessment at https://www.nationsreportcard.gov/tel_2014/?#about/focus/design.

NAEP Digitally Based Assessments

Many of our nation's schools are equipped with computers, and an increasing number of schools are making digital tools an integral component of the learning environment. This shift reflects that the knowledge and skills needed for future postsecondary educational and workplace success involve the use of new technologies. The TEL assessment is one example of how NAEP is evolving to address the changing educational landscape through its transition to digitally based assessments. Digitally based assessments allow NAEP to collect new types of data that can provide more in-depth understanding of what students know and can do in various subjects.

To learn more, visit <https://nces.ed.gov/nationsreportcard/dba/>.

TEL Assessment Framework

The National Assessment Governing Board oversees the development of NAEP assessment frameworks that describe the specific knowledge and skills to be assessed in each subject and how the assessment questions should be designed and scored. Since technology and engineering literacy is important for all individuals in a world of increasingly rapid technological change, the Governing Board developed a framework for TEL that articulates the technological skills and knowledge that are important for all students, not just those pursuing STEM-related careers.

The TEL domain consists of three major interconnected content areas—Technology and Society, Design and Systems, and Information and Communication Technology—and three practices that cut across the content areas—Understanding Technological Principles, Developing Solutions and Achieving Goals, and Communicating and Collaborating. The TEL practices represent particular ways of thinking and reasoning that students are expected to be able to apply when approaching a problem.

The TEL tasks are designed to allow students to demonstrate the range of knowledge and skills detailed in the three TEL content areas and three practices. Some tasks measure students’ abilities in one content area and practice while other tasks measure more than one content area or practice.

Learn more about the TEL framework at https://www.nationsreportcard.gov/tel_2014/#about/focus/framework.

The charts below show the distribution of 2014 TEL assessment questions by content area and practice. For more details on the TEL content areas and practices, visit https://www.nationsreportcard.gov/tel_2014/#about/areas.

NAEP Technology and Engineering Literacy Distribution of Questions by Content Area

Grade	Technology and Society	Design and Systems	Information and Communication Technology
8	34%	29%	37%

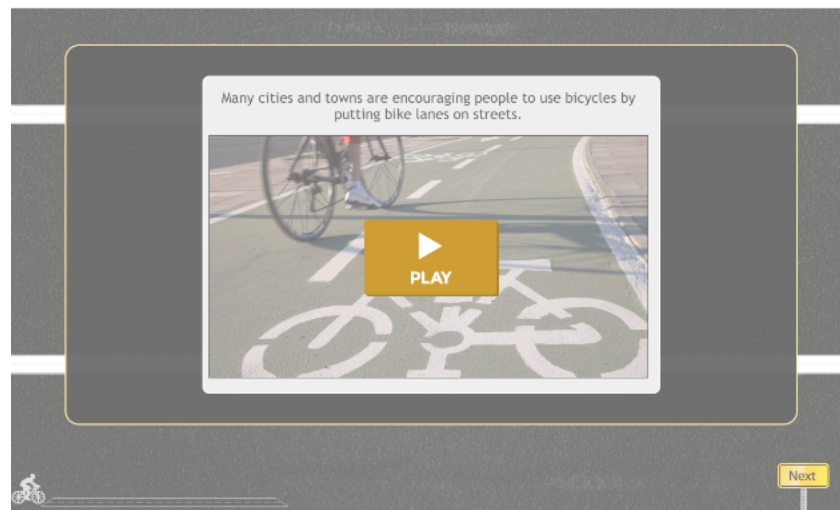
NAEP Technology and Engineering Literacy Distribution of Questions by Practice

Grade	Understanding Technological Principles	Developing Solutions and Achieving Goals	Communicating and Collaborating
8	21%	58%	21%

TEL Sample Task

In the NAEP TEL assessment, students are evaluated using computer simulations of technology and engineering problem-solving tasks set in a variety of real-world contexts. As they interact with these multimedia scenario-based tasks, students use various tools and apply their TEL knowledge and skills to solve problems across the three content areas and practices. Below is an example of a TEL scenario-based task that was included in the 2014 TEL assessment.

TEL Bike Lanes Task



In *Bike Lanes*, a city is encouraging its citizens to use bicycling as a form of transportation. Students need to apply the engineering design process to come up with a cost-effective route design for a safe bike lane. Similar to what engineers face when tackling a problem, students need to produce a design that meets specific requirements while accounting for trade-offs between options including cost and safety.

You can take this task yourself at https://www.nationsreportcard.gov/tel_2014/#tasks/bikelanes.

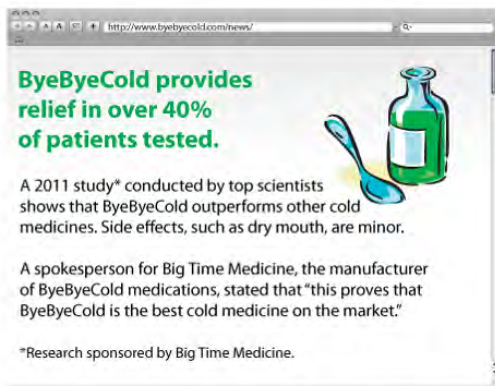
To see more TEL sample tasks (*Chicago*, *Iguana Home*, and *Rec Center*), visit https://www.nationsreportcard.gov/tel_2014/#tasks/overview.

To learn more about TEL, including information for parents and selected schools, visit <https://nces.ed.gov/nationsreportcard/tel/>.

TEL Sample Questions

In addition to scenario-based tasks, the TEL assessment also includes interactive discrete questions (e.g., multiple-choice and short constructed response). Below are two examples of TEL discrete questions along with the correct answers. See more examples of the discrete questions in the NAEP Questions Tool, available at <https://nces.ed.gov/nationsreportcard/nqt/>.

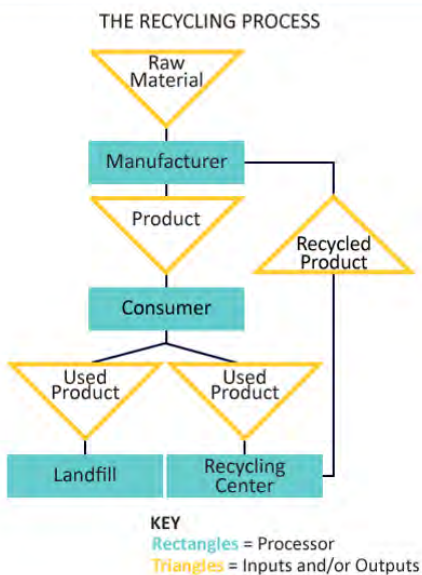
You are working on a group project about the possible advantages and disadvantages of a cold medication named ByeByeCold. Your teammate Tammi searches the ByeByeCold website and finds the information shown.



Tammi thinks the website would be a great source of information about the advantages and disadvantages of ByeByeCold, but your other teammates disagree.

Explain why this website might be an unreliable source of information. Give one reason to support your answer.

This might be an unreliable source of information because the research study on this medicine was sponsored by the manufacturer of the medicine. The possibility of bias on the research team could mean false data and conclusions.



According to the diagram shown, which of the following is a major effect of the recycling process?

Select 1 of the 4 choices below.

- A Recycling causes people to consume more raw materials.
- B Recycling directly stimulates consumer demand for recycled products.
- C Recycling provides an incentive to discover new sources of raw materials.
- D Recycling allows products to be made from fewer raw materials.

Clear Answer

III. NAEP Survey Questionnaires

What are NAEP survey questionnaires?

NAEP survey questionnaires are voluntarily completed by students, teachers, and principals who participate in a NAEP assessment. Student survey questionnaires take no more than 15 minutes to complete and are administered at the end of the NAEP assessment.

Students may answer as many questions as they like and may skip any question by leaving a response blank. NAEP survey questionnaires provide valuable information about participating students' educational experiences and opportunities to learn both in and out of the classroom.

NAEP survey questionnaires also collect information about a student's race, ethnicity, socioeconomic status (defined broadly as one's access to economic, social, and cultural resources), use of technology, and school climate.

In addition, approximately half of the questions reflect the subject of the NAEP assessment the student has completed.

How can information from the NAEP survey questionnaires benefit students?

Information collected from NAEP survey questionnaires can be used to contribute to decisions about education policy that may improve schools and promote student progress across the nation. Students' responses help highlight what is needed to improve education across the country. Although results are not reported at the individual student or school level, information gathered from NAEP survey questionnaires provides important data and insight for educators, policymakers, and researchers to better understand the educational experiences and needs of students in the United States.

Why is student participation in NAEP survey questionnaires important?

NAEP is the only measure of how students across the nation are performing in various subjects. Knowing how students perform on the NAEP assessment, and exploring patterns, such as how different student groups perform over time, are important steps in measuring educational equity in the United States and improving the education system.

How will information collected by NAEP survey questionnaires be used?

Once NAEP survey questionnaires are completed, all individual student responses are combined and grouped by grade level and subject. The responses are assembled into reports that summarize NAEP survey questionnaire results, including insights about student group topics such as race/ethnicity, socioeconomic status, gender, disability, and English language learner status. The reports highlight information to describe general, reliable, and valid estimates of student knowledge and academic performance.

Responses are confidential and cannot be linked to any student's identity or personal information. For further protection, information provided in the survey questionnaire is always handled according to federal standards and industry best practices.

TEL Survey Questionnaire

Because students' experiences with technology and engineering are not limited to school, the TEL assessment is also accompanied by a questionnaire focusing on students' opportunities to learn about technology and engineering both in and outside of school, as well as a questionnaire for school administrators focusing on resources and school demographics. (There is no teacher survey questionnaire for TEL.) Explore the TEL student and school questionnaires for the 2018 TEL assessment at <https://nces.ed.gov/nationsreportcard/bgquest.aspx>.

Find out more about the NAEP survey questionnaires

The following pages contain the NAEP 2018 survey questionnaires that will be administered to students who take the NAEP digitally based assessments. To access the NAEP survey questionnaires online, visit <https://nces.ed.gov/nationsreportcard/bgquest.aspx>. To learn more about NAEP survey questionnaires, including how NAEP ensures the privacy of questionnaire respondents, visit https://nces.ed.gov/nationsreportcard/bgquest_faq.aspx.

NAEP Survey Questionnaire Directions

Below are the directions for the digitally based assessment survey questionnaires. Students will see these instructions on the screen prior to beginning the 2018 TEL survey questionnaire. To view the TEL student survey questionnaire online, visit <https://nces.ed.gov/nationsreportcard/bgquest.aspx>.

This section contains questions about yourself and your experiences in and out of school. Your answers to these questions are anonymous. You may skip any question you do not want to answer. Your answers and the answers from other students will be used to help improve education across the country. Answer questions about your home based on where you live most of the time during the school year.

TEL Survey Questionnaire

VE401779

1. How important was it to you to do well on this test?

- Ⓐ Not very important
- Ⓑ Somewhat important
- Ⓒ Important
- Ⓓ Very important

VH694016

2. How easy or difficult was this test?

- Ⓐ Extremely difficult
- Ⓑ Quite difficult
- Ⓒ Somewhat difficult
- Ⓓ Somewhat easy
- Ⓔ Quite easy
- Ⓕ Extremely easy

VH694055

3. How much effort did you apply to succeed on this test?

- Ⓐ No effort at all
- Ⓑ Very little effort
- Ⓒ Some effort
- Ⓓ Quite a bit of effort
- Ⓔ A lot of effort

GO ON TO THE NEXT PAGE 

4. How challenging was taking this test?

- Ⓐ Not challenging at all
- Ⓑ A little challenging
- Ⓒ Somewhat challenging
- Ⓓ Quite challenging
- Ⓔ Extremely challenging

5. How much time pressure did you feel when taking this test?

- Ⓐ No time pressure at all
- Ⓑ A little bit of time pressure
- Ⓒ Some time pressure
- Ⓓ Quite a bit of time pressure
- Ⓔ A lot of time pressure

6. Are you Hispanic or Latino? Select **one or more** squares.

- Ⓐ No, I am not Hispanic or Latino.
- Ⓑ Yes, I am Mexican, Mexican American, or Chicano.
- Ⓒ Yes, I am Puerto Rican or Puerto Rican American.
- Ⓓ Yes, I am Cuban or Cuban American.
- Ⓔ Yes, I am from some other Hispanic or Latino background.

GO ON TO THE NEXT PAGE

7. Which of the following best describes you? Select **one or more** squares.

- Ⓐ White
- Ⓑ Black or African American
- Ⓒ Asian
- Ⓓ American Indian or Alaska Native
- Ⓔ Native Hawaiian or other Pacific Islander

8. About how many books are there in your home?

- Ⓐ Few (0–10)
- Ⓑ Enough to fill one shelf (11–25)
- Ⓒ Enough to fill one bookcase (26–100)
- Ⓓ Enough to fill several bookcases (more than 100)

9. Do you have any of the following in your home? Select **one** circle in each row.

	Yes	No	
a. Access to the Internet	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694206
b. Clothes dryer just for your family	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694365
c. Dishwasher	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694389
d. Your own bedroom	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694394
e. A desktop or laptop computer (including Chromebooks) that you can use	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694398
f. A tablet (for example, Surface Pro, iPad, Kindle Fire) that you can use	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694400
g. A smartphone (for example, iPhone, Samsung Galaxy, HTC One) that you can use	<input type="checkbox"/> Ⓐ	<input type="checkbox"/> Ⓑ	VH694403



10. How often do you use the Internet for homework at home?

- Ⓐ Never
- Ⓑ About once or twice a month
- Ⓒ About once or twice a week
- Ⓓ Almost every day
- Ⓔ Every day

11. How many days were you absent from school in the last month?

- Ⓐ None
- Ⓑ 1 or 2 days
- Ⓒ 3 or 4 days
- Ⓓ 5 to 10 days
- Ⓔ More than 10 days

12. How often do you talk about things you have studied in school with someone in your family?

- Ⓐ Never or hardly ever
- Ⓑ Once every few weeks
- Ⓒ About once a week
- Ⓓ Two or three times a week
- Ⓔ Every day

VH195634

13. How far in school did **your mother** go?

- Ⓐ She did not finish high school.
- Ⓑ She graduated from high school.
- Ⓒ She had some education after high school.
- Ⓓ She graduated from college.
- Ⓔ I don't know.

VH195637

14. How far in school did **your father** go?

- Ⓐ He did not finish high school.
- Ⓑ He graduated from high school.
- Ⓒ He had some education after high school.
- Ⓓ He graduated from college.
- Ⓔ I don't know.

VH694420

15. Does **your mother** work?

- Ⓐ Yes
- Ⓑ No
- Ⓒ I don't know.

VH694425

16. Does **your father** work?

- Ⓐ Yes
- Ⓑ No
- Ⓒ I don't know.

GO ON TO THE NEXT PAGE

17. Do any of the following people live in your home? Select **one** circle in each row.

	Yes	No	
a. Mother	<input type="radio"/> A	<input type="radio"/> B	VH694455
b. Stepmother	<input type="radio"/> A	<input type="radio"/> B	VH694458
c. Foster mother or other female legal guardian	<input type="radio"/> A	<input type="radio"/> B	VH694461
d. Father	<input type="radio"/> A	<input type="radio"/> B	VH694466
e. Stepfather	<input type="radio"/> A	<input type="radio"/> B	VH694472
f. Foster father or other male legal guardian	<input type="radio"/> A	<input type="radio"/> B	VH694478

18. In this school year, how often did you use a **laptop or desktop computer** (including Chromebooks) during your classes at school?

- A Never
- B In some classes
- C In about half of the classes
- D In more than half of the classes
- E In all or almost all classes

19. In this school year, how often did you use a **tablet** (for example, Surface Pro, iPad, Kindle Fire) during your classes at school?

- A Never
- B In some classes
- C In about half of the classes
- D In more than half of the classes
- E In all or almost all classes



20. How much does each of the following statements describe a person like you? Select **one** circle in each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a. I finish whatever I begin.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694552
b. I try very hard even after making mistakes.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694561
c. I keep working hard even when I feel like quitting.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694570
d. I keep trying to improve myself, even when it takes a long time to get there.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694587

21. In this school year, how often have you done each of the following? Select **one** circle in each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. I started working on assignments right away rather than waiting until the last minute.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694624
b. I paid attention and resisted distractions.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694634
c. I stayed on task without reminders from my teacher.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694641
d. I paid attention in class even when I was not interested.	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH694646



22. How much does each of the following statements describe a person like you? Select **one** circle in each row.

	Not at all like me	A little bit like me	Somewhat like me	Quite a bit like me	Very much like me	
a. I like complex problems more than easy problems.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694671
b. I like activities that challenge my thinking abilities.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694681
c. I enjoy situations where I will have to think about something.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694686
d. I enjoy thinking about new solutions to problems.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694696

23. In this school year, how often have you felt any of the following ways about your school? Select **one** circle in each row.

	Never or hardly ever	Less than half of the time	About half of the time	More than half of the time	All or almost all of the time	
a. I felt awkward and out of place at school.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694711
b. I felt happy at school.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694715
c. I felt that I learned something that I can use in my daily life.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VH694718

24. Write the ZIP code of your home address in the box.

□ □ □ □ □



The following questions are about your views and experiences related to technology and engineering.

Technology refers to all the things people make and do to their natural environment in order to get the things they want and need.

Engineering refers to using skills or knowledge to solve problems that meet people's wants and needs.

Some questions ask for facts while other questions ask for your opinions. Read each question carefully, and pick the answer you think is best.

VE639842

25. Have you ever taken or are you currently taking any of the following classes or subjects in school? Select **one or more** squares.

- Ⓐ Industrial technology (for example, auto mechanics, carpentry)
- Ⓑ Engineering (for example, robotics, bridge building, rocketry)
- Ⓒ Any class that involves learning to use, program, or build computers
- Ⓓ Any other technology-related class (for example, electronics, sewing, farming)
- Ⓔ I have not taken any of the classes listed above.

VE639847

26. Have you ever studied technology or engineering topics in any of the following classes or subjects in school? Select **one or more** squares.

- Ⓐ Mathematics
- Ⓑ Science
- Ⓒ Social studies or history
- Ⓓ I have not studied technology or engineering in any of the classes or subjects listed above.

VE681624

27. **In school**, how often do you learn about or discuss the following? Select **one** circle in each row.

	Never	Rarely	Sometimes	Often	
a. How to judge reliability of sources (for example, how a website might be biased or inaccurate)	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VE681629
b. How to credit others for their ideas (for example, citing sources, using endnotes and footnotes in reports)	<input type="radio"/> Ⓐ	<input type="radio"/> Ⓑ	<input type="radio"/> Ⓒ	<input type="radio"/> Ⓓ	VE681632



28. For school work, how often do you use a computer or other digital technology for the following activities? Select **one** circle in each row.

	Never or almost never	A few times a year	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Create, edit, or organize digital media	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE639130
b. Create a presentation	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE639137
c. Create a spreadsheet (a table or grid that displays data into columns and rows and may be used to create charts and graphs)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VE639136

29. In this question, please think about activities you do that are not related to your school work. How often do you use a computer or other digital technology for the following activities **not for school work**? Select **one** circle in each row.

	Never or almost never	A few times a year	Once or twice a month	Once or twice a week	Every day or almost every day	
a. Create, edit, or organize digital media	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF025112
b. Create a presentation	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF025117
c. Create a spreadsheet (a table or grid that displays data into columns and rows and may be used to create charts and graphs)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	VF025116



30. In school, how often have you learned about or discussed the following? Select **one** circle in each row.

	Never	Rarely	Sometimes	Often	
a. Designing or creating something to solve a problem	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE682228
b. Designing something when there is limited time, money, or materials	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE682229

31. In school, how often have you ever done the following activities? Select **one** circle in each row.

	Never	Once or twice	Three to five times	More than five times	
a. Used different tools, materials, or machines to see which are best for a given purpose	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE638959
b. Built or tested a model to see if it solves a problem	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE638963
c. Figured out why something is not working in order to fix it	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE682247
d. Taken something apart in order to fix it or see how it works	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE638965



32. **Outside of school**, how often have you ever done the following activities? Select **one** circle in each row.

	Never	Once or twice	Three to five times	More than five times	
a. Used tools or materials to plan or design something (for example, cake recipe, party)	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE009777
b. Used different tools, materials, or machines to see which are best for a given purpose	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE638998
c. Built or tested a model to see if it solves a problem	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639038
d. Figured out why something is not working in order to fix it	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE682267
e. Taken something apart in order to fix it or see how it works	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639042



33. Do you think that you would be able to do each of the following? Select **one** circle in each row.

	I definitely can't	I probably can't	Maybe	I probably can	I definitely can	
a. Create presentations with sound, pictures, or video	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008238
b. Organize information into a chart, graph, or spreadsheet	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008240
c. Compare products using the Internet	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008241
d. Use tools or materials to fix something	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008243
e. Take something apart in order to fix it or see how it works	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008244
f. Describe how inventions change society	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008245
g. Compare how different activities affect the environment	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008247
h. Explain why people have different tools, machines, or devices in different parts of the world	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	VH008248

34. **In school**, how often have you learned about or discussed the following? Select **one** circle in each row.

	Never	Rarely	Sometimes	Often	
a. Inventions that change the way people live	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639002
b. Choices people make that affect the environment	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639004
c. Conditions that influence the use or availability of machines or devices	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639005
d. The ways people work together to solve problems in their community or the world	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE682300

35. **Outside of school**, how often have you learned about or discussed the following? Select **one** circle in each row.

	Never	Rarely	Sometimes	Often	
a. Inventions that change the way people live	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639012
b. Choices people make that affect the environment	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639013
c. Conditions that influence the use or availability of machines or devices	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE639014
d. The ways people work together to solve problems in their community or the world	Ⓐ	Ⓑ	Ⓒ	Ⓓ	VE682314



VE682274

36. Who taught you most of what you know about building things, fixing things, or how things work?

- Ⓐ I taught myself.
- Ⓑ Family members
- Ⓒ Friends
- Ⓓ Teachers
- Ⓔ Someone else

VE682215

37. Who taught you most of what you know about using computers or other digital technology for collecting or sharing information?

- Ⓐ I taught myself.
- Ⓑ Family members
- Ⓒ Friends
- Ⓓ Teachers
- Ⓔ Someone else

VE682315

38. Who taught you most of what you know about how technology, people, and the environment are related to each other?

- Ⓐ I taught myself.
- Ⓑ Family members
- Ⓒ Friends
- Ⓓ Teachers
- Ⓔ Someone else

GO ON TO THE NEXT PAGE 

39. Before today, had you ever taken an interactive computer test similar to the one you just took?
 Select **one** circle in each row.

	Yes	No	
a. I had taken an interactive computer test in school.	<input type="radio"/> A	<input type="radio"/> B	VF009360
b. I had taken an interactive computer test outside of school.	<input type="radio"/> A	<input type="radio"/> B	VF009361



IV. NAEP Questions Tool

Introduction

After every assessment cycle, the National Center for Education Statistics (NCES) releases dozens of assessment questions to the public. Teachers, researchers, and the public can access these released questions using the NAEP Questions Tool (NQT). The NQT allows users to search for questions by subject, grade, difficulty, and other characteristics. You can also view scoring guides, keys, national performance data, demographic group data, and student responses (for constructed-response questions only). The tool also allows users to create customized reports and to print selected questions and all associated information.

How do I access the NAEP Questions Tool?

The NQT is available at <https://nces.ed.gov/nationsreportcard/nqt>.

What can I do with the NAEP Questions Tool?

The NQT provides easy-to-follow instructions so teachers, parents, and students can:

- Sort and select NAEP questions with a “grid” or “drag ‘n drop” viewing option
- “Test yourself” on any NAEP subject with a customizable quiz function
- Create online, self-scoring quizzes that students can login to take any time
- Compare results to how students performed across the nation

If you need help navigating the NQT, there is a Help button on every page.

Where can I find more information about the subjects NAEP assesses?

The NAEP website contains a wealth of information about the subjects NAEP assesses and can be accessed at <https://nces.ed.gov/nationsreportcard>.

How can I get additional help?

For more help with features on the NAEP website, click “Help” on the top right toolbar.

For additional assistance, write to us via the Contact NAEP page at <https://nces.ed.gov/nationsreportcard/contactus.aspx>.

V. About NAEP

NAEP OVERVIEW. NAEP is the largest nationally representative and continuing assessment of what our nation’s students know and can do in various academic subjects. NAEP is administered by the National Center for Education Statistics (NCES), located within the U.S. Department of Education’s Institute of Education Sciences. For more information about the NAEP program, visit the NAEP website at <https://nces.ed.gov/nationsreportcard>.

PARTICIPATION. States and districts that receive Title I funds are required to participate in NAEP reading and mathematics assessments at grades 4 and 8 every other year. Student participation is always voluntary. Your school’s NAEP coordinator can provide you with more information. Contact your school for details.

NAEP CONTENT. The National Assessment Governing Board, an independent body of educators, community leaders, and assessment experts, sets policy for NAEP and oversees the creation of the NAEP frameworks, which describe the specific knowledge and skills that should be assessed. For additional information on framework development, visit the Governing Board’s website at <https://www.nagb.org/focus-areas/naep-frameworks.html>.

NAEP SAMPLE QUESTIONS. For each assessment, some of the test questions, along with performance data, are made available to the public to provide concrete samples of NAEP contents and results. For every assessment, NAEP provides sample questions booklets for participating schools as well as information about the assessment design and questions. Released questions and student performance data may be viewed and downloaded from the NCES website at <https://nces.ed.gov/nationsreportcard/nqt>.

NAEP SECURE QUESTIONS. On written request, parents and educators may review NAEP questions and instruments still in use. These arrangements must be made in advance, and persons reviewing the assessment may not remove the booklets from the room, copy them, or take notes. Contact your school’s NAEP coordinator for more information.

NAEP PUBLICATIONS. NAEP reports and brochures can be searched and downloaded from the NAEP website at <https://nces.ed.gov/nationsreportcard>.

FOR FURTHER INFORMATION. For prompt field staff support on these or other matters, call the NAEP help desk at 800–283–6237.

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