Why do we go to school? Some people think the primary goal of education is giving knowledge to students. They feel there is specific information that all kids should know. For instance, they want kids to know what happened in the Revolutionary War and how the food chain works. Others interpret the main role of school as one of preparing students to join the workforce. They are most concerned about students learning particular skills, such as reading, writing, and math.

Some argue that schools should introduce a set of shared values, including liberty and justice. They believe this will help students understand the structure of our democratic government. For example, they feel it is important for students to understand that while each of the three branches of government has a different function, the three work together to make sure we all enjoy certain freedoms and live by the same rules.

Some think schools should teach students to critically analyze what they see, hear, and read. They want students to be able to think carefully about different perspectives, to respect and challenge other viewpoints, and to form their own opinions about issues that affect them. Although many people say that they want kids to be able to think for themselves, students do not always have the freedom to do so in the classroom.

What do you think the function of school is? What do you consider the most important factors in providing a good education?
WHAT IS THE PURPOSE OF SCHOOL?

USE THE FOCUS WORDS *and alternate parts of speech

analyze (verb) to examine; to study

Sample Sentence: Some think schools should teach students to analyze critically what they see, hear, and read.

Turn and Talk: How is analyzing a short story different from just reading it?

factor (noun) something that influences the result of something else

Sample Sentence: People have different ideas about the most important factors in providing a good education.

Turn and Talk: What are some factors that allow a team to win?

*factor (in/into) (verb) to include in a decision

Sample Sentence: Brittany factored the weather into her beach day plans.

Turn and Talk: What do you factor into your decision to buy new clothes? I factor _________ (price, style, need) into my decision to buy new clothes.

Math has its very own use of factor!
For example, when you factor the number 10, you get the factors 1, 10, 2, and 5.

function (noun) purpose; role; use

Sample Sentence: Each of the three branches of government has a different function.

Turn and Talk: What is the function of homework?

*function (verb) to work or operate

Sample Sentence: Edwin observed that his camera did not function properly in very cold weather.

Turn and Talk: Does your brain function best in the morning, afternoon, or night? How do you know?

interpret (verb) to understand or explain something’s meaning

Sample Sentence: Others interpret the main role of school as one of preparing students to join the workforce.

Turn and Talk: When a person is quiet or silent, how might you interpret this behavior?

structure (noun) the way that parts of something relate to each other and work together

Sample Sentence: They believe that this will help students understand the structure of our democratic government.

Turn and Talk: How does the structure of a cheetah’s body help it to run fast?

*structure (verb) to build or organize

Sample Sentence: Aftab structured his presentation so that there would be time for questions at the end.

Turn and Talk: When there is no school, how do you structure your day so that you don’t get bored?
DO THE MATH

How do Americans view their public schools? Analyze the three graphs below. The information comes from a national survey of American parents taken by The Associated Press-NORC Center for Public Affairs Research.

How well do local public schools prepare students for college?

- Good or excellent job: 57%
- Fair job: 28%
- Poor or very poor job: 13%
- No response: 2%

How well do local public schools prepare students to be good citizens?

- Good or excellent job: 55%
- Fair job: 24%
- Poor or very poor job: 19%
- No response: 2%

How well do local public schools prepare students for the workforce?

- Good or excellent job: 45%
- Fair job: 31%
- Poor or very poor job: 19%
- No response: 5%

**Option 1:** Which of the following is the best way to interpret the data shown in these three graphs?

A. Most American parents think that public schools do a good job of teaching job-related skills.
B. American parents are concerned that the next generation will not be good citizens.
C. Most American parents believe that public schools get students ready to go to college.
D. American parents are disappointed with today’s public schools.

**Option 2:** Based on the graphs, what is the probability that an American parent thinks public schools do a good or excellent job of preparing students for college AND that they do a good or excellent job of preparing students for the workforce?

\[ 0.57 \times 0.45 = 0.2565 \text{, or } 25.65\% \]

**Discussion Question:** Many teachers believe that classrooms function more effectively when students are actively involved. In social studies, students might present an analysis of U.S. foreign policy and our relationship to other countries. In Spanish class, students might interpret and act out a play written by a Colombian author. In these cases, students prepare and present while the teacher acts as a guide. Is this kind of structure realistic for a math class? Or, when you’re learning how to multiply or factor numbers, is it best for a teacher to give knowledge by explaining the facts?
THINK SCIENTIFICALLY

The students in Ms. Kahn’s class are learning how to analyze substances according to their properties.

“One important property of a substance is its density,” says Ms. Kahn. “Can anyone tell me what density is?”

“Isn’t it sort of like how massive something is?” says Marian. “I mean, that’s not it exactly, but mass is an important factor in density... It’s hard to explain. Density is sort of how tightly mass is packed into something.”

“Yeah,” Jamal adds, “density is how much mass a certain volume of something has. Say you have two things that are the same volume, but one has more mass. Then the one that’s the same size but more massive is more dense.”

“Right,” says Ms. Kahn. “Density is the ratio of mass to volume. We can write it as an equation, like this.” Ms. Kahn writes \( d = \frac{m}{v} \) on the board and then says, “Density equals mass divided by volume. Scientists often compare the density of different substances to water, because water has a density of exactly one gram per milliliter. But don’t take my word for it—see if you can figure out the density of water for yourselves.”

Marian and Jamal set out to check the density of water, but each interprets Ms. Kahn’s assignment differently.

Marian puts a graduated cylinder marked off in milliliters on a scale and resets the scale to zero so that it will not count the mass of the cylinder. Then Marian pours some water into the cylinder and records the volume and mass of the water. Next, Marian adds some more water and records the volume and mass again.

Finally, Marian calculates the density of water based on her measurements.

\[
\frac{10.13 \text{ g}}{10 \text{ mL}} = 1.013 \text{ g/mL} \quad \frac{17.91 \text{ g}}{17 \text{ mL}} = 1.054 \text{ g/mL}
\]

Take the average of the two measurements:

\[
\frac{(1.013 + 1.054)}{2} = 1.034.
\]

So the density of water is about 1.034 g/mL.

Which student do you think got the most accurate answer, Marian or Jamal? Jamal

(A gram was originally defined as the mass of 1 mL of water.)

What might be some reasons for the difference in their answers? There were minor measurement and instrument errors in Marian’s experiment.

How would you have interpreted the purpose of this assignment? How does it relate to the purpose of school?

Answers will vary. The purpose of this assignment wasn’t to learn how to calculate density, but to see that there are different ways of finding an answer —each with benefits and drawbacks. Encourage students to discuss whether they would have used Marian’s, Jamal’s, or another method to solve this problem.
WHAT IS THE PURPOSE OF SCHOOL?

DEBATE THE ISSUE

Pick one of these positions (or create your own).

A

☐ The primary function of school is to prepare students for the workforce.

OR

B

☐ The primary function of school is to teach students to analyze, to interpret, and to think for themselves.

OR

C

☐ The primary function of school is to prepare students for democratic citizenship.

OR

D

☐ The primary function of school is to make sure that all students have common knowledge about history, science, and mathematics.

OR

CREATE YOUR OWN

☐ __________

☐ __________

☐ __________

Jot down a few notes on how to support your position during a discussion or debate.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Be a strong participant by using phrases like these:

“Can you show me evidence in the text that...”

“You make a good point, but have you considered...”

“I believe that...”

“I agree with you, but...”
TAKE A STAND

Support your position with clear reasons and specific examples. Try to use relevant words from the Word Generation list in your response.

analyze | factor | function | interpret | structure