Adult Learner Program • 89-11 Merrick Blvd., Jamaica, NY 11432
E-mail: alpref@queenslibrary.org • Web: www.queenslibrary.org/tasc-transition

Developing Constructed-Response Questions

On the TASC, constructed-response questions often ask students to supply an answer and show their work or discuss their thinking. As teachers, we need to make sure that when we create classroom tasks, we ask our students to do more than just give the correct answer. Consider the problems below, and think of a clarifying question you would add to encourage students to dig deeper into the concept.

Math

1. A standard six-sided die is rolled once. What is the probability of rolling a 7?

2. Find the value of 15 x π.

3. Which of the tables below represents a function?

Domain	Range
10	1
12	2
14	3
14	4
14	5

Domain	Range
10	5
12	6
14	7
16	8
18	9

Domain	Range
5	10
5	12
5	14
6	16
6	18

Science

1. Work happens when a force moves an object in the same direction in which the force is being applied. The formula for work is $W = Fd$, where force is measured in Newtons and distance is measured in meters. Calculate the work done when an upward force of 45 Newtons is applied over 2 meters.

2. Newton's Law of Universal Gravitation is used to determine the relationship between gravitational force and the distance between two bodies. The formula for this law is $F = \frac{Gm_1m_2}{r^2}$, where G is the gravitational constant 6.67 x 10^{-11} Nm^2/kg^2, m represents the mass of each body, and r represents their separation distance. Find the force of gravitation between an 80 kg person and the center of the Earth. Earth's center is 6.38 x 10^6 meters from the surface, and its mass is 5.98 x 10^{24} kg.

The TASC Transition curriculum is a collaborative project of the New York State Education Department and the Queens Borough Public Library, supported by funding from the New York State Department of Labor.