



Discuss Your Answers

1 Notice the word not in the question. This shows you that three of the answer choices *are* important parts of making a good observation. To make good observations, you are told to use all of your senses, repeat your observations, notice the properties of objects, and view an object from all positions.

SOL 3.1.a, 2.1.b, 1.1.a, K.1.a, K.1.b

2 If Sam cannot see the ant, it will not help him to repeat his observation or look at the bottom of the ant. Only eyes are used to see things, so using other senses will not help him see the ant better. Sometimes we need to strengthen our observations by using more than our own senses to observe something.

SOL 3.1.a, 2.1.b, 1.1.b, K.1.b, K.2.a

3 A hypothesis is based on a question, but it is not written like a question. It is also a type of prediction, but it needs to be worded in a special way. A proper hypothesis should have the words *if* and *then* in it.

SOL 3.1.a, 3.1.c, K.1.g

4 The prediction must be based on Kim's observations. We know that Kim finds *one* rock. We also know that she observes *more than* one kind of material within the rock. What will tests of the rock most likely show?

SOL 3.1.a, 1.1.f

5 Every kind of measurement has its own units. Centimeters are a unit used for length. Liters are used for volume. Temperature is measured in degrees. Mass has its own unit of measurement as well.

SOL 3.1.f, 2.1.e, 1.1.e

6 The question asks about the *end* of the experiment, which is when the experiment *stopped*. Find the clock for **Stop** and look at it carefully. The short arm is for hours and it is between 6 and 7—this means it is still 6. The longer arm shows the minutes.

SOL 3.1.i

7 Picture a brand new pencil in your mind. (If you are using a pencil, put it down and look at it!) Now picture how large a penny is. Imagine lining pennies up side-by-side. A pencil is certainly longer than 1 penny, but it is probably not as long as 15 pennies.

SOL K.1.f

8 Each line on a thermometer is a degree. Every tenth degree is numbered. If a measurement is between numbered degrees, either count up from the lower number or down from the higher one.

SOL 3.1.h, 2.1.e

9 You can measure volume by seeing how much the water *rises*. Do not be fooled by numbers that show you the total measurement in the cylinder. It is the volume of the pebble you want to figure out.

SOL 3.1.d, 2.1.e, 1.1.e

10 The first picture is of a pan balance. Balances are used to measure mass. Rulers measure length. Thermometers show the temperature. Volume is measured in a container that can hold water.

SOL 3.1.d, 2.1.e, 1.1.e



11 Gram units of mass are used to measure mass in a pan balance. The amount of gram units used is the mass of the doll. Alex puts in one gram unit and then two more. What does one plus two equal?

SOL 3.1.f, 2.1.e, 1.1.e

12 These are standard English units. We know degrees are always used to measure temperature. Ounces are used to measure weight. Cups are used to measure volume. Only one unit is found on a ruler to measure length.

SOL 2.1.e

13 Remember, inches are more than twice the size of centimeters. A sewing needle measures about $1\frac{1}{2}$ inches, so you know that it must be larger than $1\frac{1}{2}$ centimeters. Also remember that you can use your ruler on this question.

SOL 3.1.e, 2.1.e, 1.1.e

14 Deer do not live in the water, they live in forests. This shows you what set they are in. Think about what deer eat—grasses and bark. This should show you what subset they are in.

SOL 3.1.b, 2.1.c, 1.1.c, K.1.e

15 Put the pictures in order, then find the third one. Use what you already know: you know that plants start as seeds, so the seed is the first picture. As things grow, they get taller, so the tallest plant is the fourth picture. Which picture do you think comes right before the tallest plant?

SOL 3.1.k



16 Count how many of each kind of animal there is in the desert. Write it down on scrap paper to help you remember. Then look at the bar graphs. Look at how high up the bars go: what numbers do they stop at? We know there are more lizards than mice and more mice than coyotes.

SOL 3.1.g, 2.1.f, 1.1.d

17 Count how many of each kind of plant there is in the desert. Write it down on scrap paper to help you remember. Then look at the picture graph. Does it match with what you wrote down? If it does not, then find the answer choice that describes the difference between your count and the picture graph's count.

SOL 3.1.g, 2.1.f, 1.1.d, K.1.c, K.1.h

18 For each number of cans, count how many students, or X's, brought in that number. Then multiply that number of cans by that number of students. For example, if 5 students brought in 5 cans each, they brought in 5×5 or 25 cans. Do this for each number of cans (0 to 5) and add to find the total.

SOL 3.1.g, 1.1.d

19 Sometimes people shout because they cannot hear well. The sense of hearing is through the ears. Only one part of Omar's swim gear goes in his ears.

SOL 3.1.j, 2.1.a, 2.1.d, 1.1.h

20 There is a cause and effect in this question. Shari's watering is probably the cause. What is the effect? The idea that water is bad for *all* plants does not make sense because not all of the plants got sick. It does not seem likely that the plants needed more water, since they were getting a lot. The question does not mention sunlight.

SOL 3.1.j, 2.1.a, 2.1.d, 1.1.h