

Scale Use Lab

Name: _____

Period: _____

Scientists use different kinds of lab equipment for different kinds of observations. In this case, you will get some practice using an electronic scale to measure the mass (how heavy or light) of some plastic blocks. Such scales are often used because they can detect very small differences, differences that are too small for us to feel with our hands.

DO NOT PUT ANYTHING ON THE SCALE EXCEPT FOR THE PLASTIC BLOCKS

You have been given a box of real arthropods encased in a thick plastic called lucite. Each block has been numbered so you can identify it.

#1—Dung Beetle

#5—Orange-wing Cicada

#9—Bark Scorpion

#2—Frog-legged Leaf Beetle

#6—Chu Ki

#10—Paper Wasp

#3—Blister Beetle

#7—Field Cricket

#11—Oriental Red & Black Roach

#4—Stag Beetle

#8—Lychee Stink Bug

#12—Flower Beetle



1. Remove the 12 blocks from the box.

2. Feel all 12 blocks. Which do you think has the most mass? (Which feels heaviest?)

I think block # _____, with the _____ in it, has the most mass.

3. Again, feel all 12 blocks. Which do you think has the least mass? (Which feels lightest?)

I think block # _____, with the _____ in it, has the least mass.

4. Take off the two plastic covers that are protecting the sensitive parts of the scale.

5. Turn on the scale by pressing the power button on the far left once. After showing “hello” the display should read 0.00 g. If it does not show this, raise your hand and get help from your teacher.

6. Take turns at your table *gently* placing each block on the scale, and recording its mass. Make sure you copy down ALL of the numbers shown on the scale display, and include the decimal point in the correct location.

Table 1 — Mass of arthropod blocks

#1 - _____ g	#5 - _____ g	#9 - _____ g
#2 - _____ g	#6 - _____ g	#10 - _____ g
#3 - _____ g	#7 - _____ g	#11 - _____ g
#4 - _____ g	#8 - _____ g	#12 - _____ g

turn this page over for the rest of the lab

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7. Turn off the scale again by pressing the power button once. The display should go dark.

8. Replace the protective plastic covers on the scale.

9. Based upon the data you have collected and recorded in Table 1, which block had the most mass?

Block # _____, with the _____ in it, had the most mass.

10. Was your prediction correct as to which block had the most mass, or not?

My initial prediction for the block with the most mass (was / was not) correct.

11. Based upon the data you have collected, and recorded in Table 1, which block had the least mass?

Block # _____, with the _____ in it, had the least mass.

12. Was your prediction correct as to which block had the least mass, or not?

My initial prediction for the block with the least mass (was / was not) correct.

13. Now that you have used an electronic scale, discuss what you have learned in the space below. Why is it better for scientists to use a scale, instead of their hands, to take measurements of mass? Cite evidence from Table 1 in your answer.