

Mass Matchup

Switch between kilograms and grams.

GRADE 5 • 5.MG.1.c.ii

5.MG.1.c.ii "Given the equivalent metric measure of one unit, in a contextual problem, determine the equivalent measurement within the metric system: mass (grams and kilograms); and"

NAME _____

DATE _____

THE BIG IDEA

1 kilogram (kg) equals 1,000 grams (g). To change kg to g, multiply by 1,000. To change g to kg, divide by 1,000.

WORKED EXAMPLE

Convert 11 kg to grams.

1. $1 \text{ kg} = 1,000 \text{ g}$.

2. $11 \times 1,000 = 11,000$.

Answer: 11,000 g

PRACTICE 6 problems

1 Convert 3 kg to grams.

ANSWER _____

2 Convert 8,000 g to kilograms.

ANSWER _____

3 A bag of birdseed has a mass of 5 kg. What is its mass in grams?

ANSWER _____

4 A package has a mass of 9,000 g. What is its mass in kilograms?

ANSWER _____

5 Convert 14 kg to grams.

ANSWER _____

6 Convert 2,000 g to kilograms.

ANSWER _____

APPLY IT Show your work

- 1** A student packs a camping food bag with a mass of 4 kg. What is the mass of the food bag in grams?

WORK SPACE

ANSWER _____

- 2** A robotics team builds a battery pack with a mass of 12,000 g. What is the mass of the battery pack in kilograms?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A gaming club has 2 kg 650 g of prize items. It adds 1 kg 350 g more prize items. What is the total mass in grams?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Convert 3 kg to grams.	3,000 g
2	Convert 8,000 g to kilograms.	8 kg
3	A bag of birdseed has a mass of 5 kg. What is its mass in grams?	5,000 g
4	A package has a mass of 9,000 g. What is its mass in kilograms?	9 kg
5	Convert 14 kg to grams.	14,000 g
6	Convert 2,000 g to kilograms.	2 kg

PART 2 • APPLY IT

1. **4,000 g** Multiply 4 kg by 1,000 g per kg. The food bag has a mass of 4,000 g.
2. **12 kg** Divide 12,000 g by 1,000 g per kg. The battery pack has a mass of 12 kg.

CHALLENGE**4,000 g**

Accept answers with or without a comma in numbers such as 3,000 g. Require the correct unit, g or kg, with each answer.