ignited MATH

IGNITED MATH

WELCOME TO

ignited
MATH

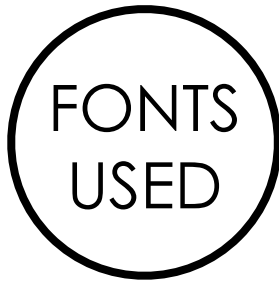| GRADE	UNIT	WEEK
6	A	5

giving CREDIT

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WELCOME TO IGNITED MATH

We are so excited that you have decided to say YES! to joining Ignited Math.

To help you get the best start at implementing this program, we have created a **FREE Getting Started With Ignited Math Guide,** just for you. In this guide, we will help you get started on some of the following.

Click The Link to Download Your Free Guide

- **Getting Started / Program Set Up**

- **Ideal Weekly and Daily Schedules**

- **How to Set Up and Run Your Math Centres**

- **How to track and assess student learning**

- **Answers to Frequently Asked Questions**

- **How to get extra support in running and organizing math in your classroom**

teacher directed
LESSON PLAN

ignited math
WEEKLY LESSON A5

Learning Goal

The student will be able to understand the metric system of measuring length and converting between units.

Preparation

Print all resource materials for week five.

Teacher Directed Lesson

MONDAY

- Ask students the following questions, to activate their knowledge:
  - "How do we measure things?"
  - "What units of measurement can we use to measure something small or large?"
  - "What unit of measurement do we use to measure length, weight, or liquid capacity/volume?"
- Review with students the different units of measurement that they did not identify. Use these **anchor posters** to assist with this.
- Use the **image cards**, and ask students what unit of measurement would be most appropriate.

Assessment Questions:
- Do students understand the measurement amounts and their prefixes?
- Are students able to communicate their thinking with others?

TUESDAY

- Use a metre stick, and try to measure a pencil's length and width.
- Ask students if a metre stick is the best tool? Are there better tools? (ie: Ruler)
- On the board, draw a line, and in the middle place the word metre. Under this, use the benchmark cards to indicate its position. Read the rest of the benchmark cards one at a time (kilo, deca, centi etc) Ask students to decide if it is bigger than the unit or smaller. Place these on the line. Explain to students that these measurements get bigger or smaller by multiples of ten. Draw these 'jumps' on the line created. (**see here for example**)
- Review the various units metre, gram, and litre, with the prefixes on the number line.
- Students will create their own **ladder conversion chart** by cutting out the boxes and gluing them together on the grey boxes. See example

Assessment Questions:
- Can students read the measurement anchor chart?
- Do they understand how to use it to help them convert measurements?
- Are students able to communicate their thinking with others?

ignited math
WEEKLY LESSON A.5

Teacher Directed Lesson

WEDNESDAY	• Show students the **word problems** for converting measurement in the metric system. Use the metric anchor chart , to walk students through solving the word problems. • Put students into groups. Have the groups come up with a measurement word problem involving converting measurements. Have the students switch their word problem with another group and solve. • Repeat until each group has had a chance to solve all of the other groups' word problems.	**Assessment Questions:** • Do students understand how to choose the appropriate unit of measurement? • Use their measurement task cards as an assessment.
THURSDAY	• Place **review cards** around the room. You can write the questions larger on poster paper, or leave them on the review cards. • You can put students into groups, or have students walk around the room by themselves, to answer each review card. • Have students record their answers on the **answer sheet**, to turn in for assessment.	**Assessment:** • Review answer sheets, to determine students' understanding of the week's material. Re-teach as needed.
FRIDAY	**Reflection Journal** • Engage students with the **Inquiry Math Prompt** pages. • Students can complete the work independently, or in groups. Allow students to share their answers (gallery walk, jigsaw, inside outside circle, elbow partner, etc.) • Allow students time to independently complete their **math journal.**	**Assessment:** • Can students apply learning from the previous week in a meaningful way? • Assess student journal on the above expectations from throughout the week.

let's measure
LENGTH

Also known as

width, height, distance

WHAT UNIT DO WE USE?

M

METRES

let's measure
WEIGHT

Also known as

mass, load, heaviness

WHAT UNIT DO WE USE?

G

GRAM

let's measure
CAPACITY

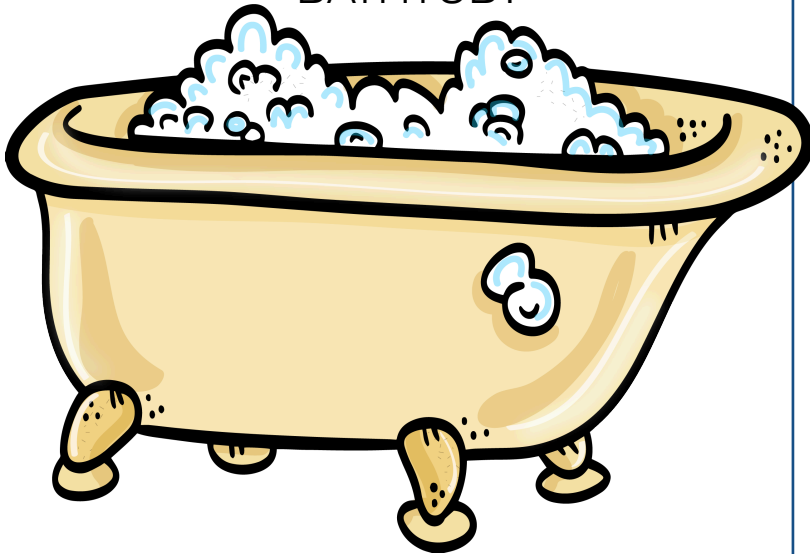Also known as

volume, full, space

WHAT UNIT DO WE USE?
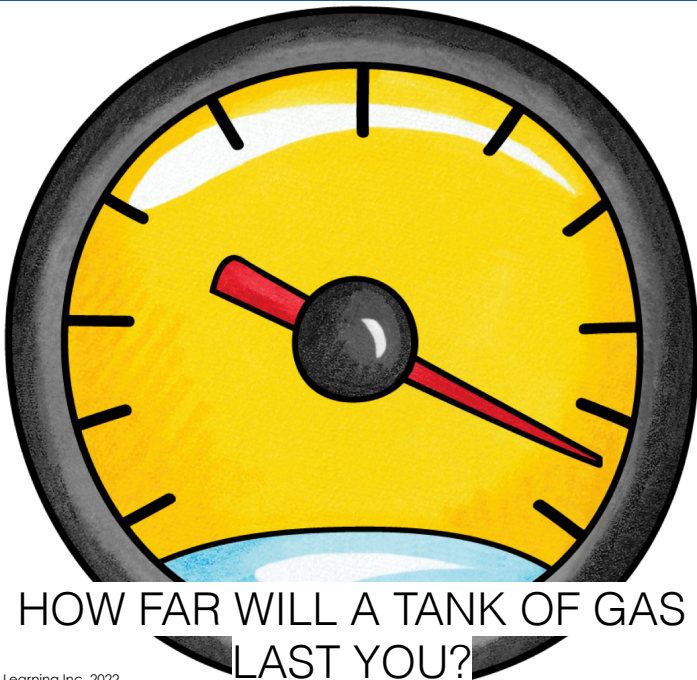
L

LITRE

HOW MUCH WATER IS IN A BATHTUB?
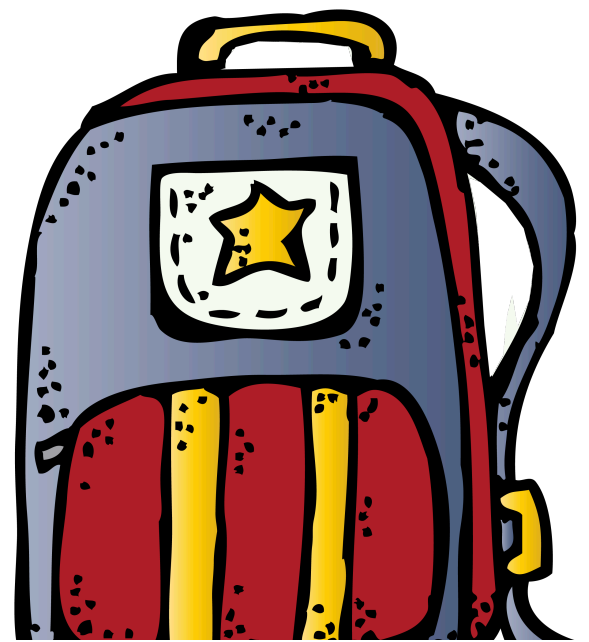
HOW HEAVY IS YOUR BACKPACK?

HOW FAR WILL A TANK OF GAS LAST YOU?

HOW TALL IS YOUR DESK?

WHAT IS THE DISTANCE AROUND YOUR WHOLE SCHOOL?
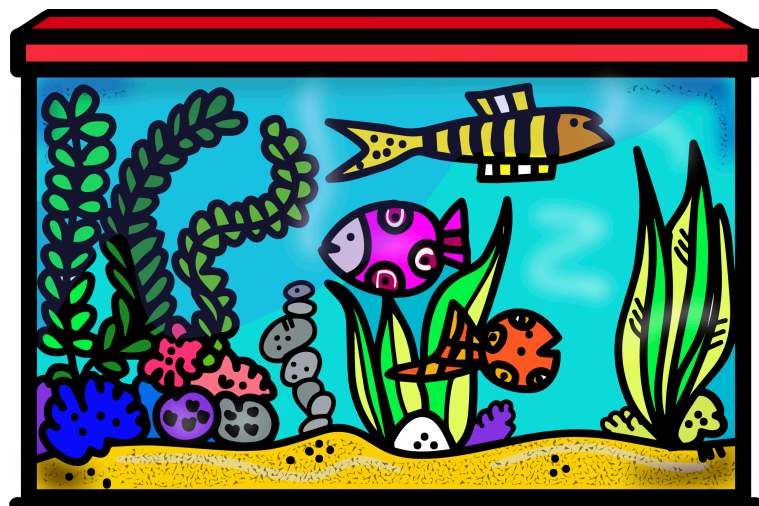
HOW MUCH WATER IS NEEDED TO FILL THE FISHTANK?

13

Kilo	Hecto
Deca	Unit
Deci	Centi
Milli	Metre
	GRAM
	LITRE

metric system
MEASUREMENT

Kilo

1 000 UNITS

X 10

÷ 10

Hecto

100 UNITS

X 10

÷ 10

Deca

10 UNITS

X 10

÷ 10

Unit

1 UNIT

X 10

÷ 10

Deci

0.10 UNIT

X 10

÷ 10

Centi

0.01 UNITS

X 10

÷ 10

Milli

0.001 UNITS

METRIC MEASUREMENT
Is based on the base 10 system. While not all prefixes are commonly used in everyday measurement, it is important to know them and see them. relationships between each unit

METRE LENGTH

GRAM MASS

LITRE VOLUME

CUT OUT EACH MEASUREMENT BOX. PLACE GLUE ON EACH GREY BOX AND ASSEMBLE. FOLD ON THE DIAGONAL LINE TO FIT INSIDE YOUR NOTEBOOK.

KILO
1 000 UNITS

X10

÷10

HECTO
100 UNITS

X10

÷10

DECA
10 UNITS

X10

÷10

UNIT
METRE
LITRE
GRAM

X10

÷10

DECI
0.10 UNITS

X10

÷10

CENTI
0.01 UNITS

X10

÷10

MILLI
0.001 UNITS

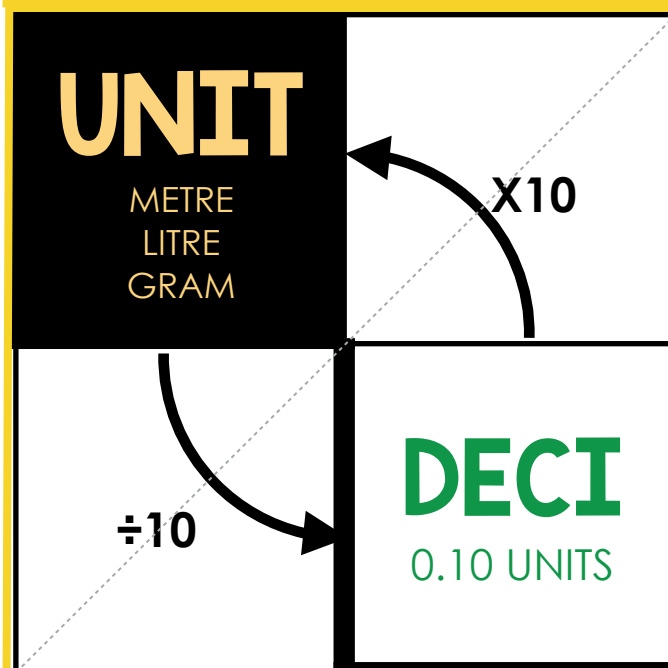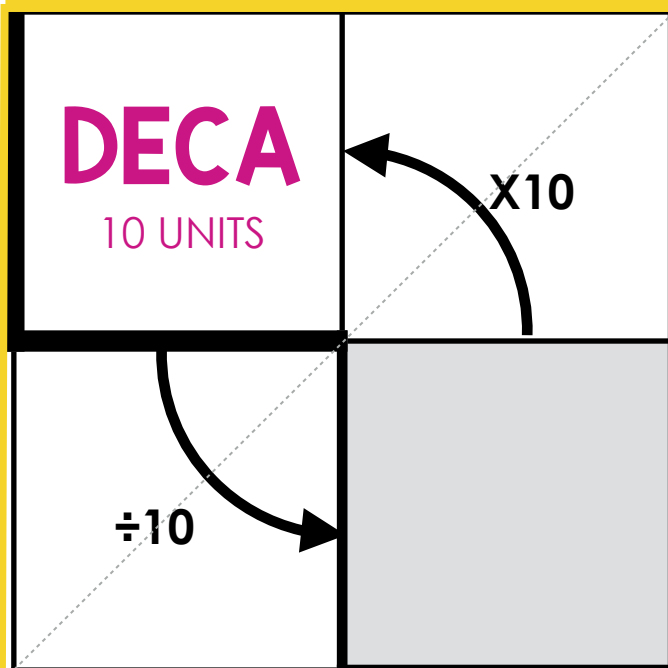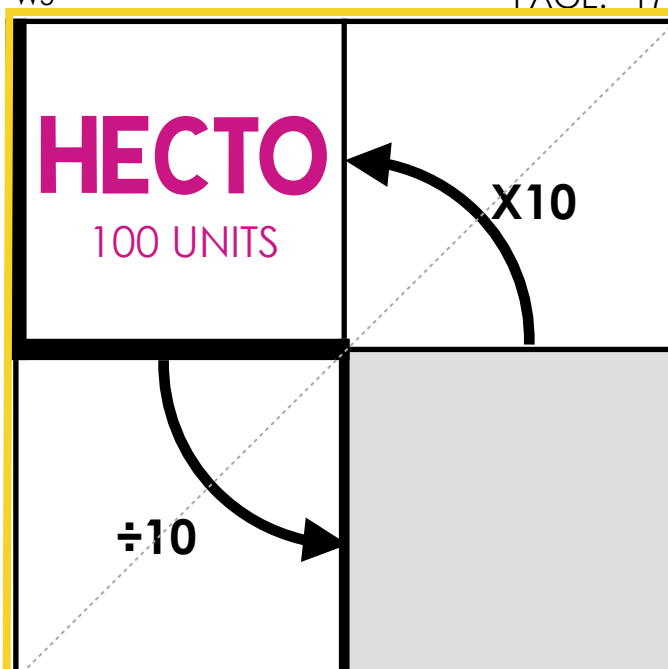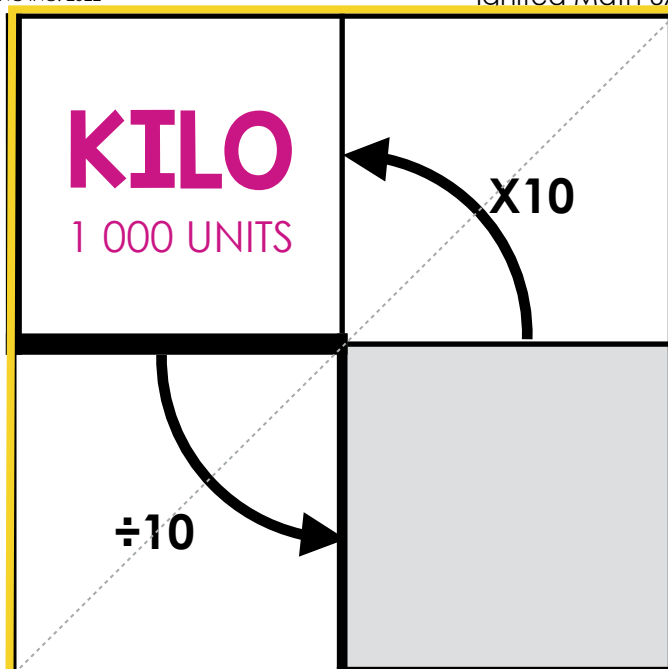CUT OUT EACH MEASUREMENT BOX. PLACE GLUE ON EACH GREY BOX AND ASSEMBLE. FOLD ON THE DIAGONAL LINE TO FIT INSIDE YOUR NOTEBOOK.

KILO
1 000 UNITS
X10
÷10

HECTO
100 UNITS
X10
÷10

DECA
10 UNITS
X10
÷10

UNIT
METRE
LITRE
GRAM
X10
÷10

DECI
0.10 UNITS

X10
÷10

CENTI
0.01 UNITS

X10
÷10

MILLI
0.001 UNITS
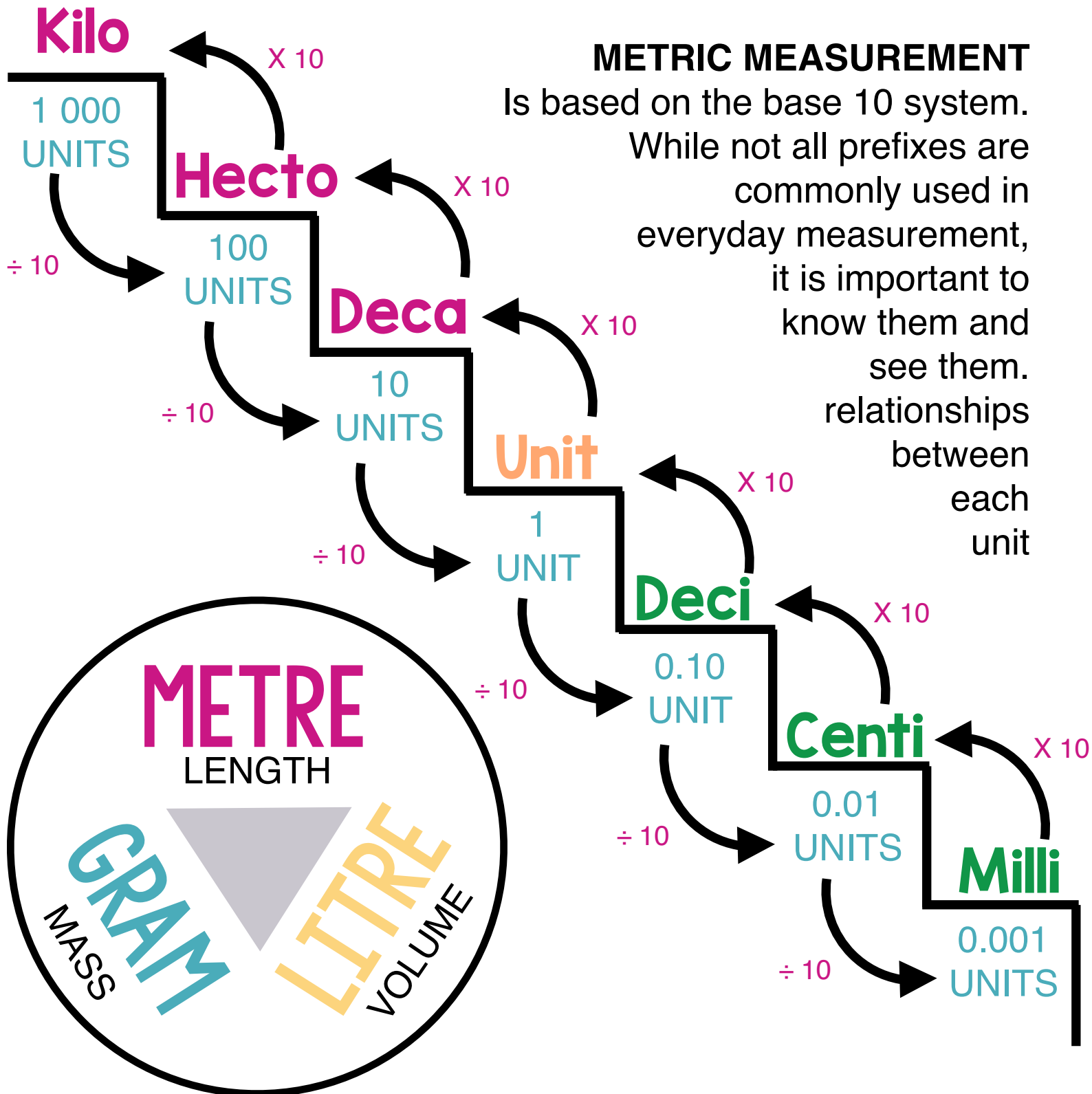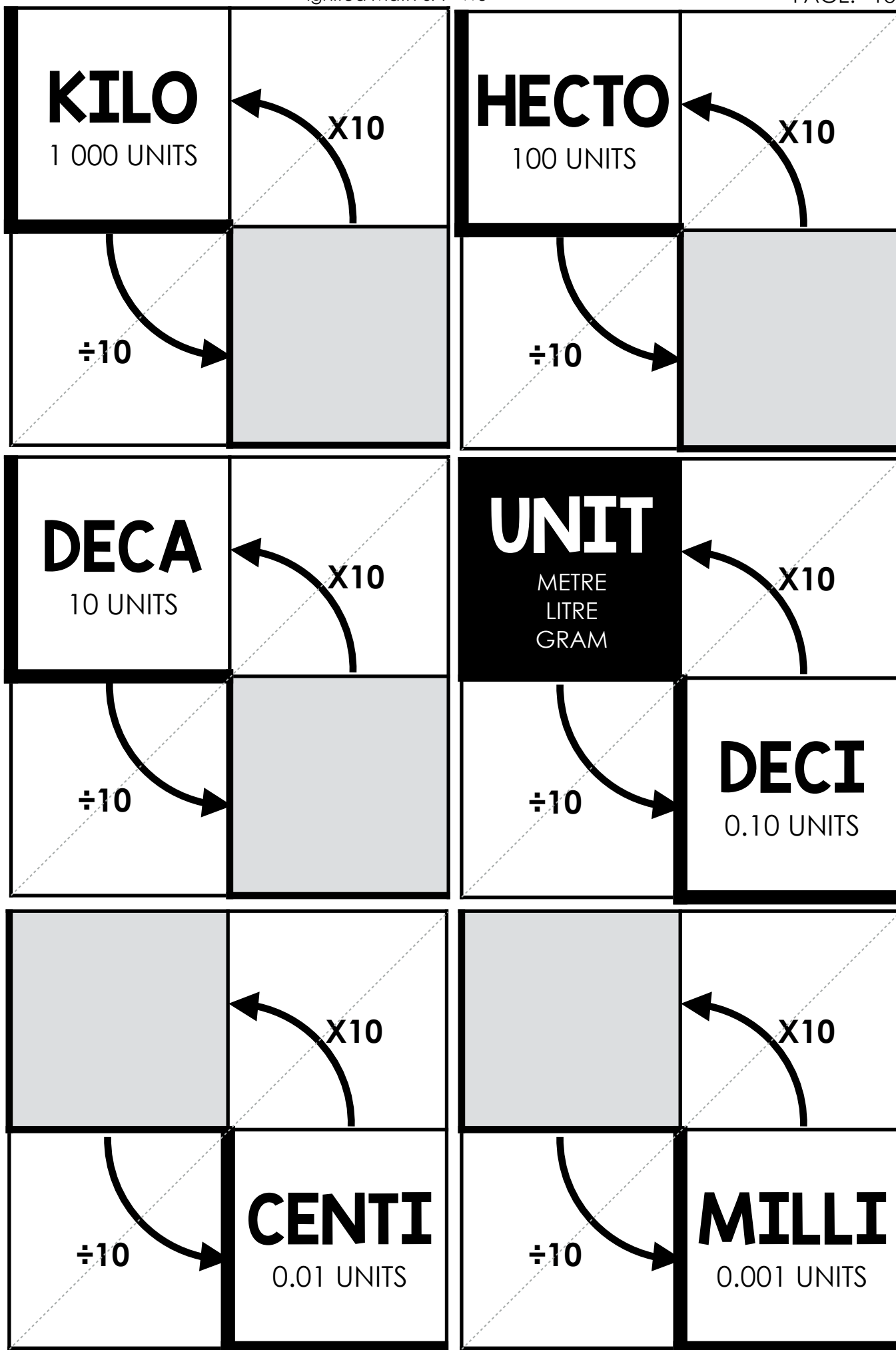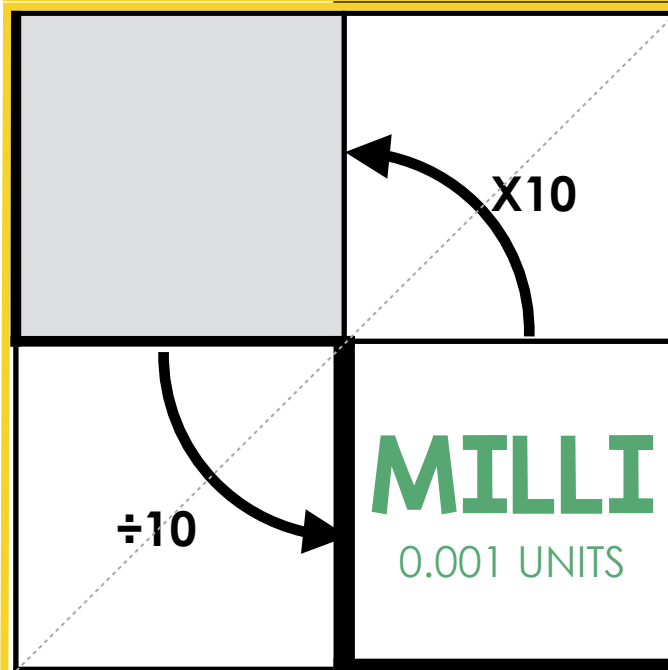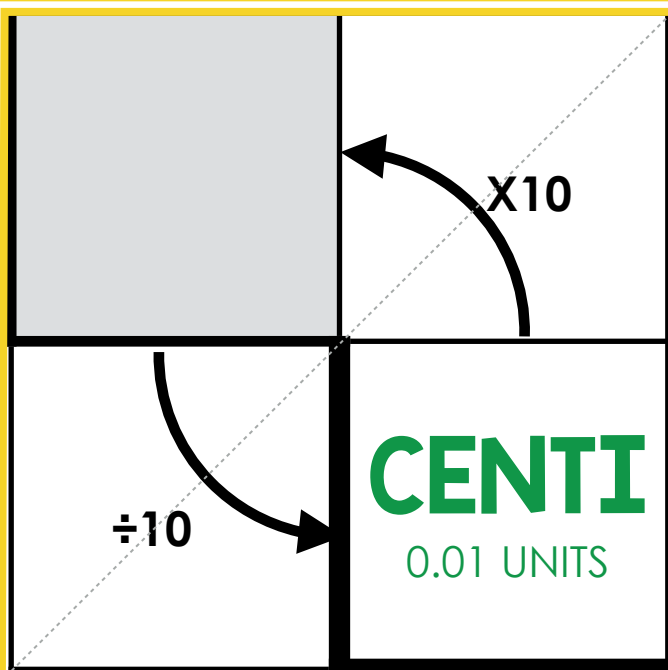
MEASUREMENT STAIRCASE
instructions

1. Cut out the 6 Boxes of the measurement staircase. These boxes are marked in yellow.

2. Order the boxes from largest to smallest with the black unit box in the middle.

3. Place glue on the grey boxes and glue the pieces together.

4. Fold on the dotted lines. Fold each section into the center so that the edge flaps are on top.

5. Glue to the Metric System page where indicated and label with "Metric Staircase - Open Here"
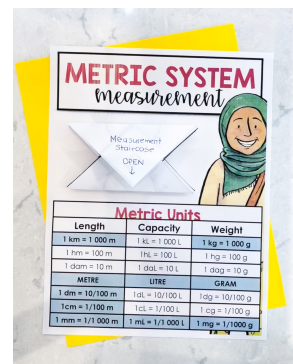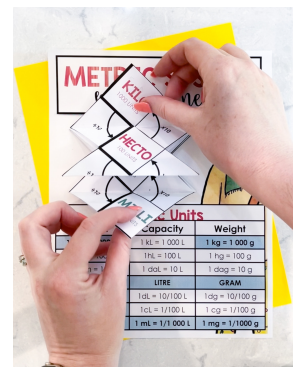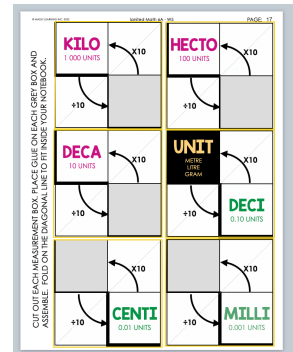
Kilo	**Hecto**
Deca	**Unit**
Deci	**Centi**
Milli	**Metre**
	GRAM
	LITRE

METRIC SYSTEM
measurement

GLUE
MEASUREMENT
FOLDABLE HERE

Metric Units

Length	Capacity	Weight
1 km = 1 000 m	1 kL = 1 000 L	**1 kg = 1 000 g**
1 hm = 100 m	1hL = 100 L	1 hg = 100 g
1 dam = 10 m	1 daL = 10 L	1 dag = 10 g
METRE	**LITRE**	**GRAM**
1 dm = 10/100 m	1dL = 10/100 L	1dg = 10/100 g
1cm = 1/100 m	1cL = 1/100 L	1 cg = 1/100 g
1 mm = 1/1 000 m	**1 mL = 1/1 000 L**	**1 mg = 1/1000 g**

Printing Instructions: Before printing, check your printer settings, to ensure that your printer is not set to scale this image. Print on paper, and then if possible, photocopy onto transparency paper.
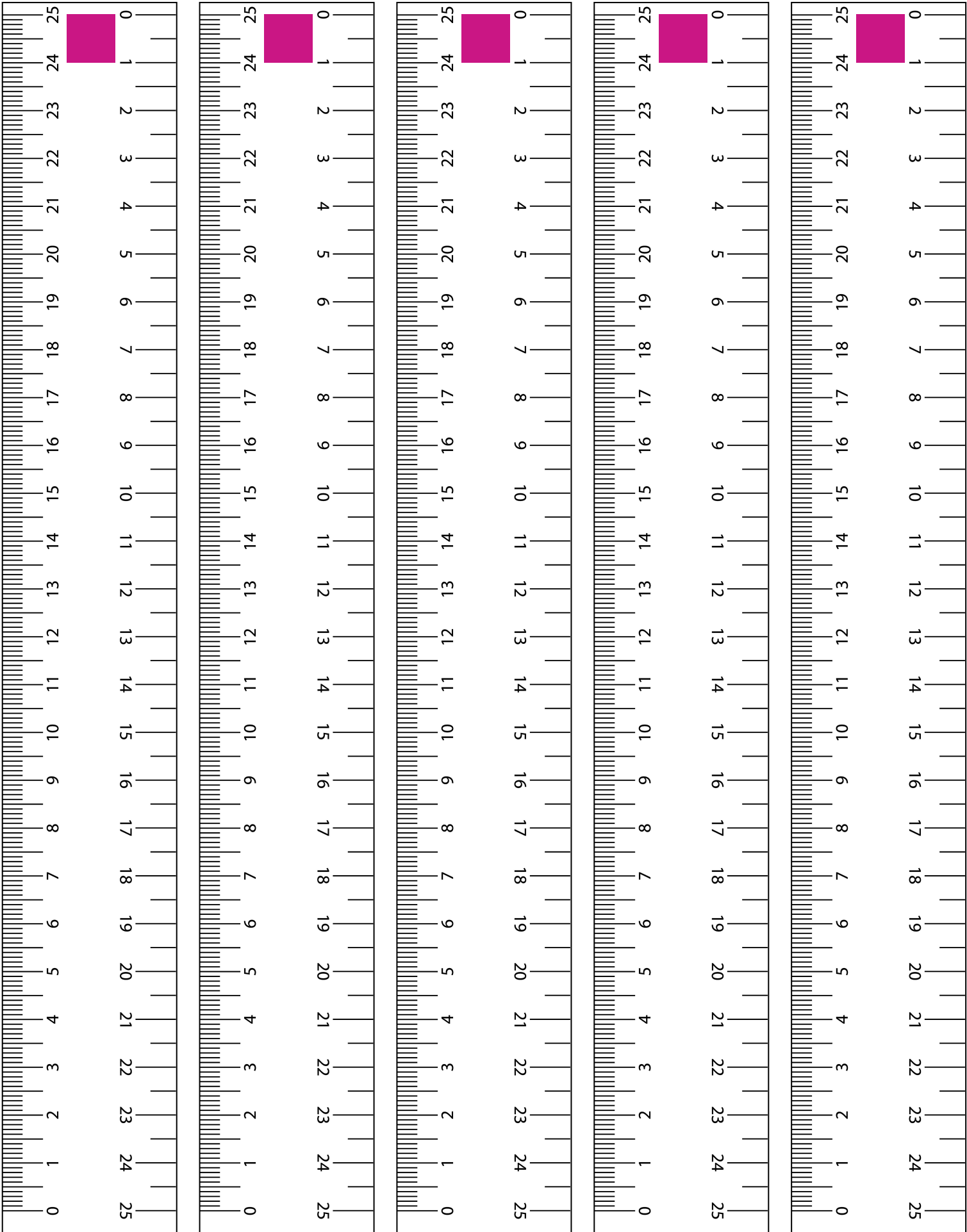
Trey measured a present that was 150 centimetres long. How many millimetres long was the present?

Mike is 140 centimetres tall. How many metres tall is Mike?

Jane ran 3 kilometres for 3 days. How many metres did she run?

A flower petal is 66 millimetres long. How many centimetres long is it?

Li rides 500 metres on the exercise bike on one day. She rode the same distance each day, Monday through Friday. How many total kilometres did she ride?

Tammy has 20 metres of yarn. She used 425 centimetres of yarn. How much yarn does she have left?

cards for mixed review

1
Which unit of measurement would you use to measure the length of a football field?

a. Metre
b. Kilometre
c. Centimetre

2
Which metric prefix stands for 1 000?

a. Deca
b. Kilo
c. Hecto

3
Which metric prefix stands for 100?

a. Deca
b. Centi
c. Hecto

4
Which metric prefix stands for 1/100?

a. Milli
b. Centi
c. Hecto

5
Which metric prefix stands for 1/1 000?

a. Milli
b. Centi
c. Deci

6   3 km = _____ m

a. 30 000
b. 3 000
c. 300

7   500 mm = _____ cm

a. 0.5
b. 5
c. 50

8   25 cm = _____ m

a. 250
b. 0.25
c. 0.025

answer cards

FOR CLASSROOM REVIEW

1	2
3	4
5	6
7	8

GETTING STARTED

daily math warmups

instructions

Metric System - Length

Weekly Goals

* I understand the different metric measurement units.
* I can choose the appropriate unit to measure an object.
* I can accurately measure an object.

This week we will be exploring lengths, using the different metric measurements.
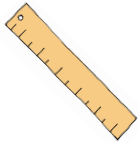
mm

width of a pencil tip

cm

width of a finger tip

m

width of a door

km

Walk 1 kilometre in about 10 minutes

DAY 1

Which is larger? circle the correct response

1. centimetres **or** millimetres
2. metres **or** kilometres?
3. metres **or** decimetres?
4. decimetres **or** centimetres
5. kilometres **or** decimetres
6. metres **or** millimetres

Name something you would measure in:

* mm _____
* cm _____
* m_____
* km _____

Equal To

145 cm is equal to

☐ **14 dm and 5 mm**

☐ **1m 4 cm and 5 mm**

☐ **1m and 450 mm**

DAY 2

Which unit of measurement would you use to measure the length of:

1. a football field _____
2. a driveway _____
3. a finger _____
4. Toronto to Hamilton _____
5. an insect _____
6. a book _____
7. a cell phone _____

Circle the equal measurement for each.

a.	7 cm	700m	70 mm
b.	40 mm	4 cm	0.4 km
c.	90 m	900 dm	900 cm
d.	30 cm	300mm	3m

You are creating a box for an object. The object is 2 dm in length. How many cm in length does the box need to be?

7

DAY 3

Choose 2 objects in your desk and estimate their length and width. Then measure the objects.

object #1 ___	object #2 ___
E:	E:
L and W:	L and W:

DRAW A LINE THAT IS 2 CM AND 8 MM

On another piece of paper, create a **Decimetre Ruler.** It should be 3 decimetres in length, and also show centimetres.

DAY 4

Choose 2 objects in your classroom, and estimate their length and width. Then measure.

object #1 ___	object #2 ___
E:	E:
L and W:	L and W:

Do the conversions

km	m	cm
5		
0.3		
		900
2.7		
	20	

DAY 5

Problem of the Week

Note: Weight uses the same conversion calculations as length. e.g
1 kg=1 000 g

Bulk Food Purchase

item	weight
flour	2.5 kg
sugar	1 000 g
candy	600 g
soup base	500 g
baking soda	0.25 kg

What is the weight of all of the items? Show your thinking.

independent
M.A.T.H.
CENTRES

IGNITED MATH CENTRES
student's weekly plan

(M) Math Practice ☐

MEASUREMENT SORT: TRUE OR FALSE

1. Cut out the cards on the True or False Cards handout.
2. Read the statement on each card, and sort them into a box under True or False.
3. Glue the cards into place under the correct heading.

(A) Apply Learning ☐

UNITS OF MEASUREMENT: CONVERSIONS

1. Read the instructions, and view the first row of the table for an example.
2. Complete the table, using the known measurements. Convert to fill in all of the measurements in a row, to display in kilometres, metres, centimetres, and millimetres.
3. Then, compare your answers with a classmate. Did you get the same answers?
4. Finally, order all of the measurements on a separate piece of paper from least to greatest.

(T) Teacher Time ☐

WHAT DID I LEARN?

My Learning Goal was:

_____
_____
_____
_____
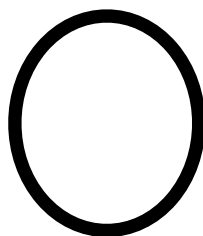
Self Assessment
Reflect on your learning from your guided math session. How would you rate your level of understanding?

(H) Hands on Math ☐

MEASURING WITH A RULER

1. Gather a ruler and the handout.
2. Measure each of the items listed with your ruler in cm.
3. Write the measurement of each item in cm in the boxes.
4. Then, convert your measurement to millimetres.
5. Choose four of your own items to measure, for filling in the second table.
6. Record the measurements in the boxes.

math practice
MEASUREMENT SORT: TRUE OR FALSE

MATH FOCUS

The student will be able to understand the metric system of measuring length and converting between units.

PREPARATION

Each student will need a copy of the **Measurement Sort: True or False template** as well as the **True or False cards** to cut out. They will also need access to scissors and glue.

GOAL

Cut out the cards on the True or False Cards handout. Read the statement on each card, and glue each card in the boxes under either true or false.

CENTRE INSTRUCTIONS

1. Cut out the cards on the **True or False Cards** handout.
2. Read the statement on each card, and sort each card into a box under True or False.
3. Glue the cards into place under the correct heading.

ASSESSMENT QUESTIONS

- Do students understand the physical benchmarks of measurement?
- Do students understand how to choose the appropriate unit of measurement?
- Do students understand the measurement amounts and their prefixes?

EXTENSIONS

Students can create an additional 5 measurement task cards, to trade with a classmate. and categorize as either true or false.

MEASUREMENT SORT: TRUE OR FALSE

FALSE

TRUE

TRUE OR FALSE CARDS

The best unit of measurement to measure a banana is km.	40 mm > 4 m	There are 10 cm in 1 metre.
60 mm < 6 m	The best unit of measurement to measure the size of a door is mm.	There are 100 mm in 1 cm.
10 m > 1 km	The best unit of measurement to measure the size of a highway is km.	The best unit of measurement to measure the length of a hiking trail is cm.

The best unit of measurement to measure the size of a classroom is m.	There are 1 000 mm in 1 m.	The best unit of measurement to measure a bus is cm.
The best unit of measurement to measure a shoe is cm.	There are 100 metres in 1 km.	The best unit of measurement to measure an ant is mm.
There are 100 cm in 1 m.	The best unit of measurement to measure a pencil is m.	There are 100 mm in 1 m.

apply learning
UNITS OF MEASUREMENT: CONVERSIONS

MATH FOCUS

The student will be able to understand the metric system of measuring length and converting between units.

PREPARATION

Each student will need a copy of the **Units of Measurement: Conversions handout**.

GOAL

Using the known measurements in the table, convert the measurements, to be able to fill in all of the measurements in the row. Each row should display the measurement in kilometres, metres, centimetres, and millimetres.

CENTRE INSTRUCTIONS

1. Read the instructions, and view the first row of the table for an example.
2. Complete the table, using the known measurements. Convert the measurements, to be able to fill in all of the measurements in each row. Each measurement should display in kilometres, metres, centimetres, and millimetres.
3. Then, compare your answers with a classmate. Did you get the same answers?
4. Finally, order all of the measurements from the table on a separate piece of paper, from least to greatest.

ASSESSMENT QUESTIONS

• Can students effectively convert between different units of measurement?

EXTENSIONS

Students can compare with a classmate. They can work together, to order all of the measurements from least to greatest.

UNITS OF MEASUREMENT: CONVERSIONS

Using the known measurements in the table, convert, to fill in all of the measurements in the row. Each measurement should display in kilometres, metres, centimetres, and millimetres.

KILOMETRES	METRES	CENTIMETRES	MILLIMETRES
0.03	30	3 000	30 000
0.5			
		7 000	
	60		
			80 000
		4 000	

hands on math
MEASURING WITH A RULER

MATH FOCUS

The student will be able to understand the metric system of measuring length and converting between units.

PREPARATION

Each student will require the **Measuring with a Ruler** handout. They will also need a ruler in cm to measure with.

GOAL

Using a ruler, measure each of the items listed below. Write the measurement in cm. Then, convert your measurement to mm. In the second table, choose your own items to measure.

CENTRE INSTRUCTIONS

1. Gather a ruler and the handout.
2. Measure each of the items listed, with your ruler in cm.
3. Write the measurement of each item in the boxes beside each item, in cm.
4. Then, convert your measurement to millimetres.
5. Choose four of your own items to measure, for completing the second table.
6. Record the measurements in the boxes.

ASSESSMENT QUESTIONS

• Can students record measurements in cm?
• Can students convert cm to mm?
• Do students understand the rules of measuring?

EXTENSIONS

Students may compare their measurements to others.
Students can order their items from smallest to largest.

MEASURING WITH A RULER

Using a ruler, measure each of the items listed below. Write the measurement in cm. Then, convert your measurement to mm. In the second table, choose your own items to measure.

ITEM	MEASUREMENT (CM)	MEASUREMENT (MM)	ITEM	MEASUREMENT (CM)	MEASUREMENT (MM)
PENCIL			(CHOOSE AN ITEM)		
YOUR FOOT			(CHOOSE AN ITEM)		
DESK			(CHOOSE AN ITEM)		
YOUR HAND			(CHOOSE AN ITEM)		

teacher directed

GUIDED MATH

MEASURING LENGTH
guided math

BELOW

Warm Up

- Begin by showing students any one of the pre-cut **Items to Categorize**.
- Discuss as a group which of the metric units would be best to use to measure the item.
- Have students form pairs.
- Give each pair of students one of the remaining cards.
- Have them consider which unit would be best, and share their answer with the group.

Lesson

- Students will then form groups (millimetres, centimetres, metres, and kilometres), and place their items in whichever group they believe each item belongs.
- Point out the card of the book; find a book in the classroom, and have a student in the group volunteer to measure the book, using a metric ruler.
- Have the other students assess their measuring technique.
- Compare the measurement to the unit students thought would be used for this item.
- Next, display the pre-cut prefixes (just the column on the left) from the **Measurement Prefix Cards V1** (these are just kilo, unit, centi, and milli).
- Begin by placing 'Unit' on the table.
- Have students work as a group, to determine which prefix represents a unit greater than one unit/metre (kilo), and which prefixes represent a unit less than one unit/metre (centi and milli).

Observation

- Place the four prefixes in order as a group.
- To finish, review with students the relationships between these units, using the other columns on the **Measurement Prefix Cards V1** sheet, to demonstrate how they are related.
- Observe if students can understand the different units, their relations to one another, and understand the process of using a metric ruler, with support.

APPROACHING

Warm Up

- Begin by showing students any one of the pre-cut **Items to Categorize**.
- Discuss as a group which of the metric units would be best to use to measure the item.
- Have students form pairs.
- Give each pair of students one of the remaining cards.
- Have them consider which unit would be best, and share their answer with the group.

Lesson

- Students will then sort into groups (km, m, cm, and mm).
- Point out the card of the book; find a book in the classroom, and have a student in the group volunteer to measure the book, using a metric ruler.
- Have the other students assess their measuring technique.
- Compare the measurement to the unit students thought would be used for this item.
- Next, display 'Unit' from the **Measurement Prefix Cards V2**.
- Go through the other pre-cut prefixes one at time (the left column on the sheet), and have students determine which prefixes represent a unit greater than one unit/metre (kilo, hecto, and deca) or less than one unit/metre (deci, centi, and milli).
- Place all of the prefixes in order.
- Next, sort through the middle column of the Measurement Prefix Cards V2 (fractions relations).

Observation

- Have students match the fraction to the proper prefix, working together as a group.
- Distribute the pre-cut cards from the third column of the sheet (metric relations in words) to pairs, to match these to the prefix/fraction relations displayed.
- Observe if students can understand the different units, their relations to one another, and understand the process of using a metric ruler, with support.

MEASURING LENGTH
guided math

PROGRESSING

Warm Up

- Show students any one of the pre-cut **Items to Categorize**
- Discuss as a group which of the metric units would be best to use to measure the item.
- Next, have students form pairs.
- Give each pair of students one of the remaining cards.
- Have them consider which unit would be best cm, mm, m, or km), and share their answer with the group.

Lesson

- Students will then form groups (millimetres, centimetres, metres, and kilometres), and place their items in whichever group they believe it belongs.
- Ask students to consider if one of the other units they learned about this week (hectometre, decimetre, or decametre) could work instead, to measure any of these items. Have them explain their thinking.
- Point out the card of the book. Have students estimate a number, to match the unit selected (ex: 20 cm).
- Students will find a book in pairs, and measure the book using a metric ruler.
- Compare their measurement to their estimates.
- Next, display all of the pre-cut **Measurement Prefix Cards V2** for students to see.
- As a group, have students match the prefix to its fraction of a unit, and its relation to a unit in words.

Observation

- To finish, have students consider the following in pairs:
Would a length of 100 cm or 100 mm be longer?
- Have students justify their answer to the group (They should note that since 1 cm is 1/100 of a metre and 1 mm is 1/1 000 of a metre, 100 cm would be larger)
- Observe if students can understand the different units, and can demonstrate their understanding of metric relations, as well as measuring with a ruler.

EXTENDING

Warm Up

- Begin by giving each student one of the pre-cut **Items to Categorize**.
- Have them consider which unit would be best to measure their item (cm, mm, m, or km), and share their answer with the group.
- Students will then form groups (millimetres, centimetres, metres, and kilometres), and place their items in whichever group they believe it belongs.

Lesson

- Ask students to consider if one of the other units they learned about this week (hectometre, decimetre, or decametre) could work instead, to measure any of these items. Have them explain their thinking.
- Point out the card of the book. Have students estimate a number, to match the unit selected (ex: 20 cm).
- Students will find a book in pairs, and measure the book using a metric ruler.
- Compare their measurement to their estimates, asking them to explain any discrepancies.
- Next, have students form pairs, and give each pair a full set of the pre-cut **Measurement Prefix Cards V2**.
- Have pairs match the prefix to its fraction of a unit, and its relation to a unit in words.
- Next, have students consider the following:
Would a length of 100 cm or 100 mm be longer?
- Have students justify their answer to the group.

Observation

- To finish, have students consider the following as a group challenge:
How else could we express those same two lengths (100 cm and 100 mm)?
- Have students observe the metric relation anchor chart, to help guide their thinking. Have them observe patterns in the relations.
- Observe if students can understand the different units, and can demonstrate their understanding of metric relations, as well as measuring with a ruler.
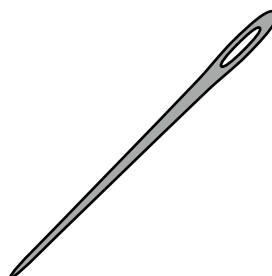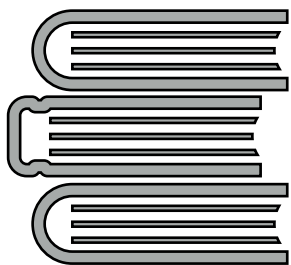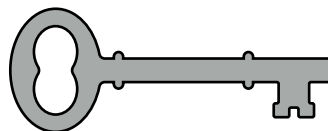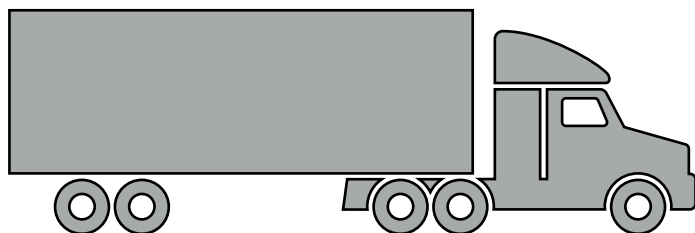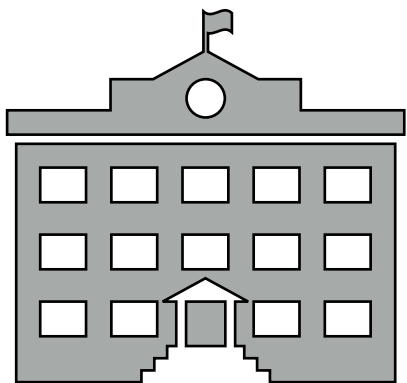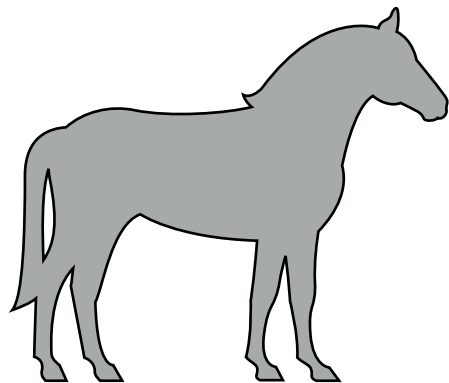
KILO	1000 UNITS	THOUSAND
UNIT	1 UNIT	ONE
CENTI	1/100 UNIT	ONE HUNDREDTH
MILLI	1/1000 UNIT	ONE THOUSANDTH

KILO	1 000 UNITS	ONE THOUSAND
HECTO	100 UNITS	ONE HUNDRED
DECA	10 UNITS	TEN
UNIT	1 UNIT	ONE
DECI	1/10 UNIT	ONE TENTH
CENTI	1/100 UNIT	ONE HUNDREDTH
MILLI	1/1 000 UNIT	ONE THOUSANDTH

TARGETED SKILLS IN MATH

Problem Solving

Student knows the right answer, and they can make choices and provide justification.

Reasoning and Proving

Students can share and clarify their ideas, justify their thinking, pose and ask relevant questions.

Reflecting

Students can make sense of the problem, and use relevant information to solve multi-step/complex problems.

Connecting

Students can answer questions in context, to determine the answer, using known processes.

Communicating

Students can share and explain their answers to math problems. They can give descriptive feedback to students, and ask meaningful questions.

Representing

Students can represent and model their mathematical understanding, using manipulatives, pictures, diagrams, graphs, and tables.

Selecting Tools

Students can select the right tool (digital or physical) or strategy, to solve the problem they're given.

Social Emotional Learning

Students have a positive outlook on their own math abilities, and can demonstrate a growth mindset, perseverance, and the value of mistakes.

GUIDED MATH
assessment tool

GUIDED MATH GROUP   1   2   3   4   5   6

WEEKLY GUIDED MATH FOCUS _____

TARGETED SKILLS

Problem Solving	**Reasoning and Proving**	**Reflecting**	**Connecting**
Student knows the right answer, and they can make choices and provide justification.	Students can share and clarify their ideas, justify their thinking, pose and ask relevant questions.	Students can make sense of the problem, and use relevant information to solve multi-step/complex problems.	Students can answer questions in context, to determine the answer, using known processes.
Communicating	**Representing**	**Selecting Tools**	**Social Emotional Learning**
Students can share and explain their answers to math problems. They can give descriptive feedback to students, and ask meaningful questions.	Students can represent and model their mathematical understanding, using manipulatives, pictures, diagrams, graphs, and tables.	Students can select the right tool (digital or physical) or strategy, to solve the problem they're given.	Students have a positive outlook on their own math abilities, and can demonstrate a growth mindset, perseverance, and the value of mistakes.

Student: _____ **Skill** _____

LEVEL   1:_____   2: _____   3: _____   4:_____

Observations: _____

_____

_____

Next Steps: _____

Student: _____ **Skill** _____

LEVEL   1:_____   2: _____   3: _____   4:_____

Observations: _____

_____

_____

Next Steps: _____

Student: _____ **Skill** _____

LEVEL   1:_____   2: _____   3: _____   4:_____

Observations: _____

_____

_____

Next Steps: _____

Student: _____ **Skill** _____

LEVEL   1:_____   2: _____   3: _____   4:_____

Observations: _____

_____

_____

Next Steps: _____

Student: _____ **Skill** _____

LEVEL   1:_____   2: _____   3: _____   4:_____

Observations: _____

_____

_____

Next Steps: _____

Student: _____ **Skill** _____

LEVEL   1:_____   2: _____   3: _____   4:_____

Observations: _____

_____

_____

Next Steps: _____

GUIDED MATH
track assessment

STUDENT _____

WEEKLY GUIDED MATH FOCUS _____

| TARGETED SKILLS		
	Level	Feedback
Knowledge & Understanding Student knows the right answer, and they can make choices and provide justification.		
Communication Students can share and clarify their ideas, justify their thinking, pose and ask relevant questions.		
Thinking Students can make sense of the problem, and use relevant information to solve multi-step/complex problems.		
Application Students can answer questions in context, to determine the answer, using known processes.		

inquiry
MATH PROMPT

INQUIRY MATH PROMPT:

correct the mistakes

Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.

Question 1:What does the prefix 'deca' mean? How does it relate to one unit?

Student work:

'Deca' means 10, so it is 1/10 the unit of one metre.

$\div 10$

Metre
(1 unit)

Deca
($\frac{1}{10}$ unit)

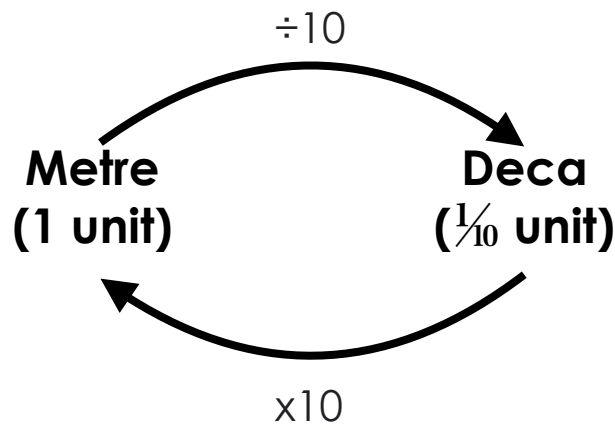x10

Your correction/Explanation:

INQUIRY MATH PROMPT:

correct the mistakes: answer key

Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.

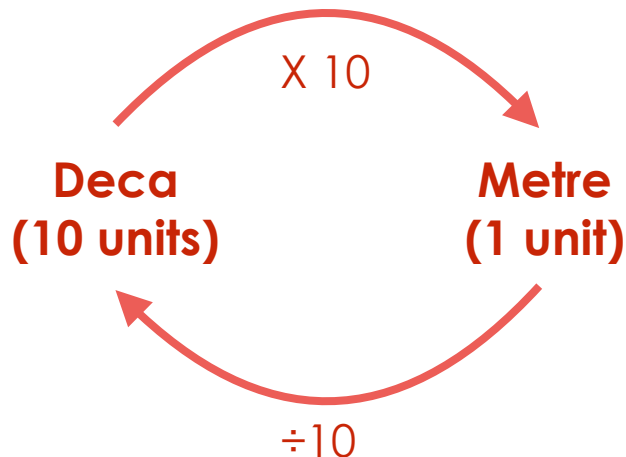Question 1: What does the prefix 'deca' mean? How does it relate to one unit?

Student work:

'Deca' means 10, so it is 1/10 the unit of one metre.

$$\div 10$$

Metre (1 unit) → **Deca ($\frac{1}{10}$ unit)**

$$\times 10$$
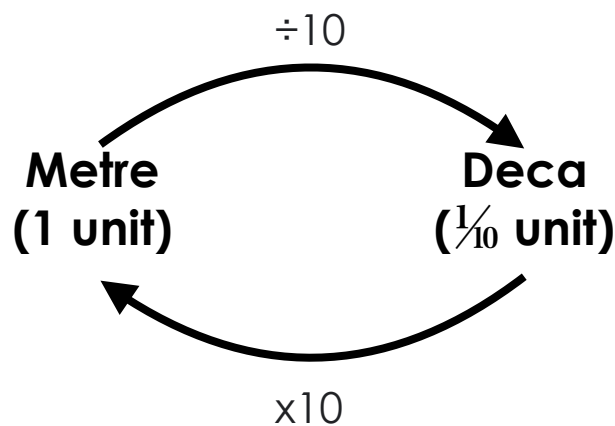
Your correction/Explanation:

The student is correct that 'deca' means ten, but it relates to metres/units as 10 units not 1/10 unit. 'Deci' is 1/10 unit. They also mixed up the operations in their arrows.

$$X\ 10$$

Deca (10 units) → **Metre (1 unit)**
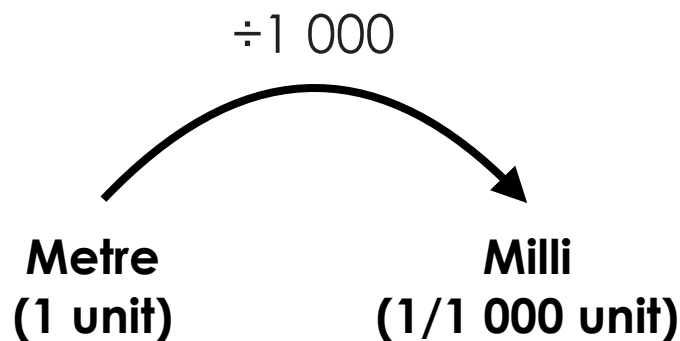
$$\div 10$$

INQUIRY MATH PROMPT:

correct the mistakes

Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.

Question 2: How many millimetres are in one metre?

Student work:

'Milli' means 1 000, so there are 1/1 000 mm in one metre.

÷1 000

Metre
(1 unit)

Milli
(1/1 000 unit)
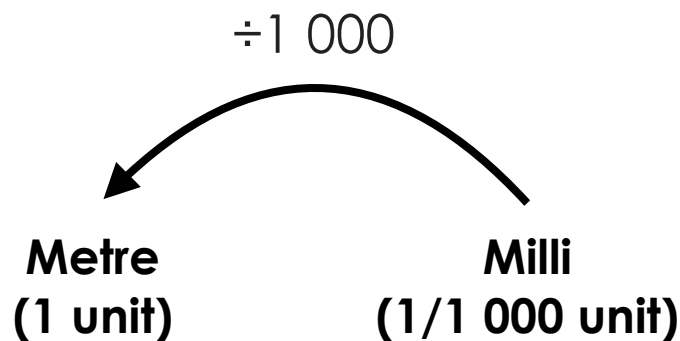
Your correction/Explanation:

INQUIRY MATH PROMPT:

correct the mistakes: answer key

Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.
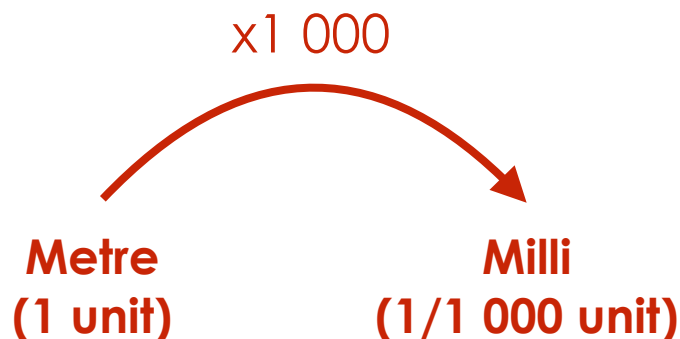
Question 2: How many millimetres are in one metre?

Student work:

'Milli' means 1 000, so there are 1/1 000 mm in one metre.

÷1 000

Metre
(1 unit)

Milli
(1/1 000 unit)

Your correction/Explanation:

The student is correct in they assessment that 'milli' means 1 000 as a prefix. However, they mistook the value of a millimetre in terms of a metre. 1 metre would be 1 000 mm

x1 000

Metre
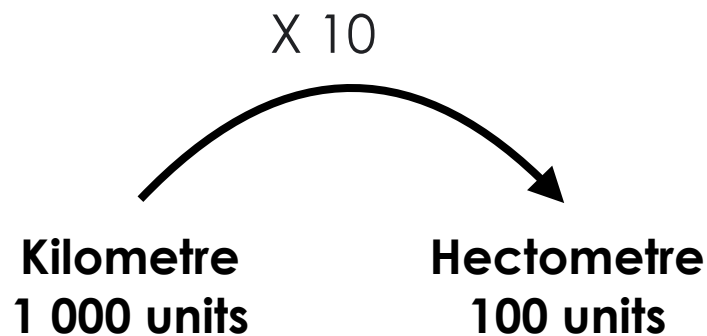(1 unit)

Milli
(1/1 000 unit)

INQUIRY MATH PROMPT:

correct the mistakes

Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.

Question 3: Based on the physical benchmarks of walking one kilometre, how long would it take to walk one hectometre?

Student work:

1 hectometre is 10 times the distance of a kilometre, so 10 x 10 = 100 minutes.

X 10

Kilometre
1 000 units

Hectometre
100 units
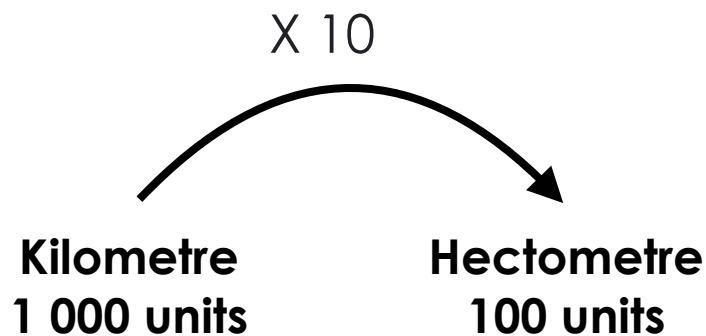
Your correction/Explanation:

INQUIRY MATH PROMPT:

correct the mistakes: answer key

Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.

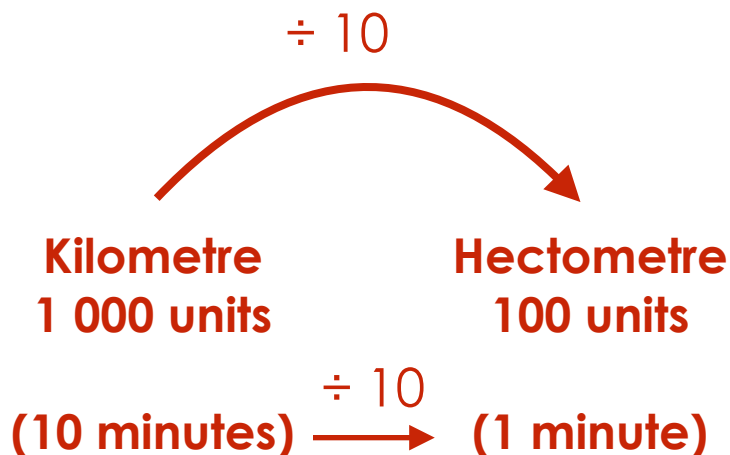Question 3: Based on the physical benchmarks of walking one kilometre, how long would it take to walk one hectometre?

Student work:

1 hectometre is 10 times the distance of a kilometre, so 10 x 10 = 100 minutes.

X 10

Kilometre
1 000 units

Hectometre
100 units

Your correction/Explanation:

1 hectometre is 1/10 the length of 1 km. Instead of multiplying 10 minutes by 10, they should have divided 10 minutes by 10.

÷ 10

Kilometre
1 000 units

Hectometre
100 units

÷ 10

(10 minutes) ⟶ **(1 minute)**

INQUIRY MATH PROMPT:

correct the mistakes

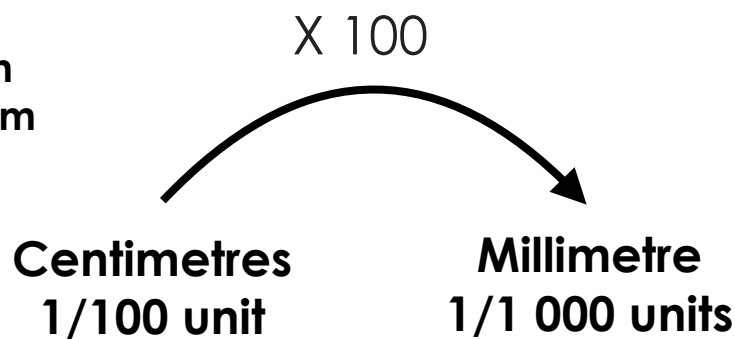**Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.**

Question 4: Measure the length and width of the rectangle below, using a metric ruler. Indicate the measurements in cm and millimetres.

Student work:
Length= 3 cm/300 mm
Width= 14 cm/1400 mm

X 100

Centimetres
1/100 unit

Millimetre
1/1 000 units

Your correction/Explanation:

INQUIRY MATH PROMPT:

correct the mistakes: answer key

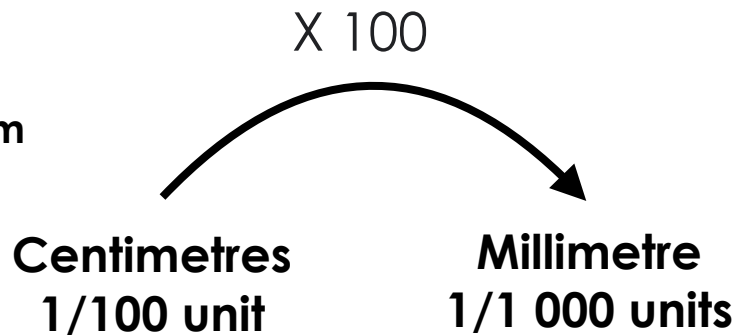**Correct the mistakes in the following student's work. Explain their mistake, and share the correct answer.**

Question 4: Measure the length and width of the rectangle below using a metric ruler. Indicate the measurements in cm and millimetres.

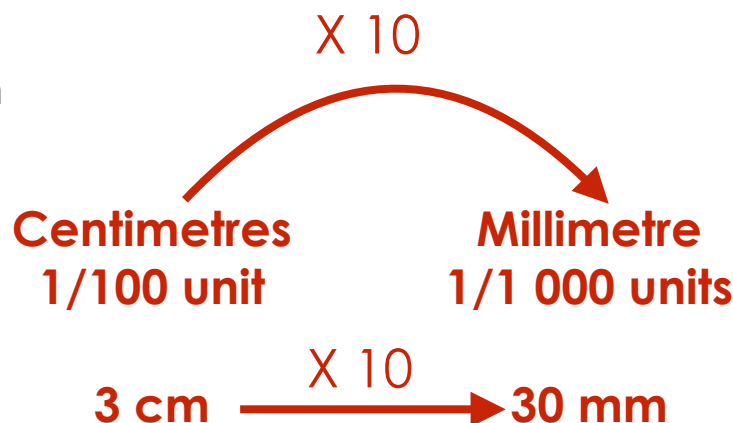**Student work:**
Length= 3 cm/300 mm
Width= 14 cm/1400 mm

X 100

Centimetres
1/100 unit

Millimetre
1/1 000 units

Your correction/Explanation:

The student measured the rectangle width incorrectly (maybe by placing the edge of the rectangle at the edge of the ruler as opposed to at the zero marker).
They also did not convert cm into mm correctly.

Length= 3 cm/30 mm
Width= 14 cm/140 mm

X 10

Centimetres
1/100 unit

Millimetre
1/1 000 units

X 10

3 cm ⟶ **30 mm**

reflective
MATH JOURNAL

WHAT MATH CAN BE USED TO REPRESENT THIS?

WHAT INFORMATION IS MISSING?

INQUIRY MATH

WHAT DO YOU SEE OR NOTICE?

WHAT IDEAS DOES THIS GIVE YOU?

WHAT IS YOUR PLAN TO SOLVE?

IS THERE AN ALTERNATIVE?

TELL ME JOURNAL PROMPTS

weekly math journal

Describe how your thinking has changed.

Describe what you are doing to someone.

Explain the steps you follow.

Explain what you have learned.

Compare two strategies, and tell which one is better.

Teach someone how to do a new math skill.

Tell about a time when this math skill would be useful in real life.

MATH PROJECT:

weekly math journal

① My Learning Goal

_____
_____
_____
_____

② Talk About It

_____
_____
_____
_____
_____
_____
_____
_____

③ Show Your Learning