

# Units of Length

---

## Overview

In this activity students will compare units of length and find images of objects appropriately measured by each unit.

## Time Needed

1-2 class periods

## Materials

Timeliner XE

Units Worksheet

Inch/Centimeter Rulers and Yard/Meter sticks (optional)




## Grade Range

Grades 3 - 6

## Learning Objectives

- Identify objects measured by different units of length.
- Compare and order units of length from smallest to largest.
- Use the Sequencing feature in Timeliner XE.
- Use the Media feature in Timeliner XE.

## Directions

1. Open Timeliner XE Click on **Choose an Activity**  then click **Science & Math**  and then on **Finish Me** . Choose **Units of Length** from the list of activities and click **Open**.
2. Ask students to use their fingers to show the length of one centimeter and to use their hands to show the length of one yard. Ask students which unit is larger (one yard).
3. Distribute the **Units Worksheet**. Have students work in pairs or alone to fill out the worksheet.

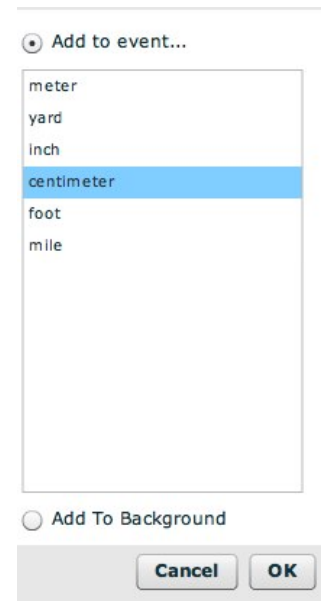
- 
- Project the **Units of Length** Sequence and demonstrate how to drag each unit of measure on to the sequence. Explain to students that they will be arranging the units in order from smallest to largest. When comparing units, students should think of the length of one single unit, i.e. 1 cm vs. 1 inch.



- Click on **Media** and the Images pane will open. Demonstrate to students how to look through the categories to find images associated with each season. Scroll down, click on **Science** and choose **Fish & Reptiles**.



- Click on **Frog Eggs** and drag it to the Sequence page.
- Click **Add to Event**, Choose centimeter and then click **OK**. Discuss with students the fact that they could choose inches or centimeters to measure the frog eggs. Both would be acceptable. Remind students that they need to find a different image for each unit of length.



- Tell students that they are going to be creating a similar sequence ordering the units and choosing an appropriate image for each unit of length.
  - Before working on Timeliner XE, have students use the **Units Worksheet** to think about each unit of length and consider some objects that they could measure.
  - When students have completed the worksheet they will be ready to work on their Timeliner XE sequence.
-

---

11. Have students open Timeliner XE, Click on **Choose an Activity**  then click **Science &**

**Math**  and then on **Finish Me** . Tell them to choose **Units of Length** from the list of activities and click **Open**.

12. Remind students to drag the units in the appropriate order onto their sequence to click

on the **Media**  button to find images.

13. When students have completed their sequences they can print them to be displayed in the classroom.

## Extensions

- You may want to encourage more advanced students to use images from the Internet to illustrate their seasons.
- When students finish this sequence activity, have them create a new one using different units.
- For younger students, complete the sequencing as a class and then have students work on choosing images independently.
- Use the paint bucket at the bottom of the Timeliner XE page to fill in colors for the different units of length.

## Assessment

- Check that each unit is arranged in the correct order (centimeter, inch, yard, meter, mile) and that the images match and make sense for each unit of length. If an image doesn't make sense, ask the student to explain why it was chosen.
  - Worksheet answers: 1. C, 2. A, 3. B, 4. C, 5. D, 6. D Object will vary.
-

---

# Units Worksheet

1. One Meter is about the width of
    - a. a quarter
    - b. a toothpick
    - c. a doorway
    - d. an apple
  
  2. One Inch is about the width of
    - a. a quarter
    - b. a toothpick
    - c. a doorway
    - d. an apple
  
  3. One Centimeter is about the width of
    - a. a quarter
    - b. a toothpick
    - c. a doorway
    - d. an apple
  
  4. One yard is about the width of
    - a. a quarter
    - b. a toothpick
    - c. a doorway
    - d. an apple
  
  5. One mile is about the width of
    - a. a quarter
    - b. a toothpick
    - c. a doorway
    - d. none of the above
  
  6. One foot is about the width of
    - a. a quarter
    - b. a toothpick
    - c. a doorway
    - d. none of the above
-

---

# Units Worksheet

Name 3 objects you would measure using each of these units.

Meters:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Centimeters:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Yards:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Feet:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Inches:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Miles:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

---