

Grade 4: Science

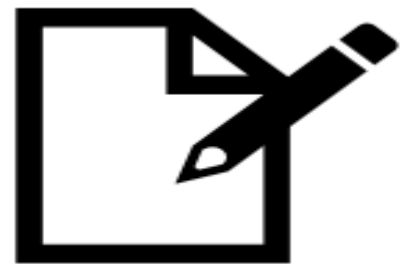
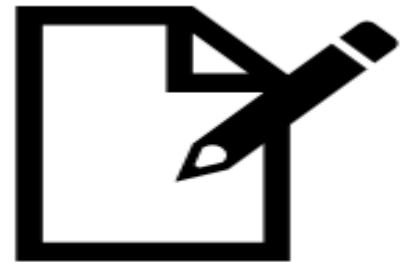
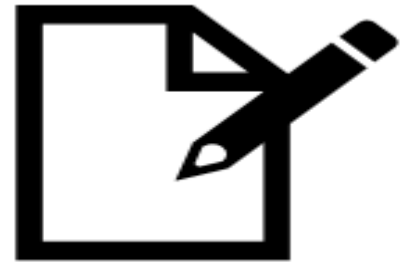
Last week, Chandra's class was learning about energy transformations in circuits. They explored how electrical energy can be transformed, or changed, into other types of energy.

Chandra's class is starting a new unit on plants. Chandra and her classmates gathered some plant samples during recess and compared them. They found that their plant samples had some similar parts, and wanted to know what each structure did.

The picture below shows one of the samples the class collected. What do you think each part does? Based on that, what would you name each part? Write your thoughts in the boxes below:



[Flowering perennials or weeds](#) - Britannica ImageQuest



During science, the class watched a video about plants. They then made a chart of what they learned about each plant part and what it does. Take a look at their chart on the next page.

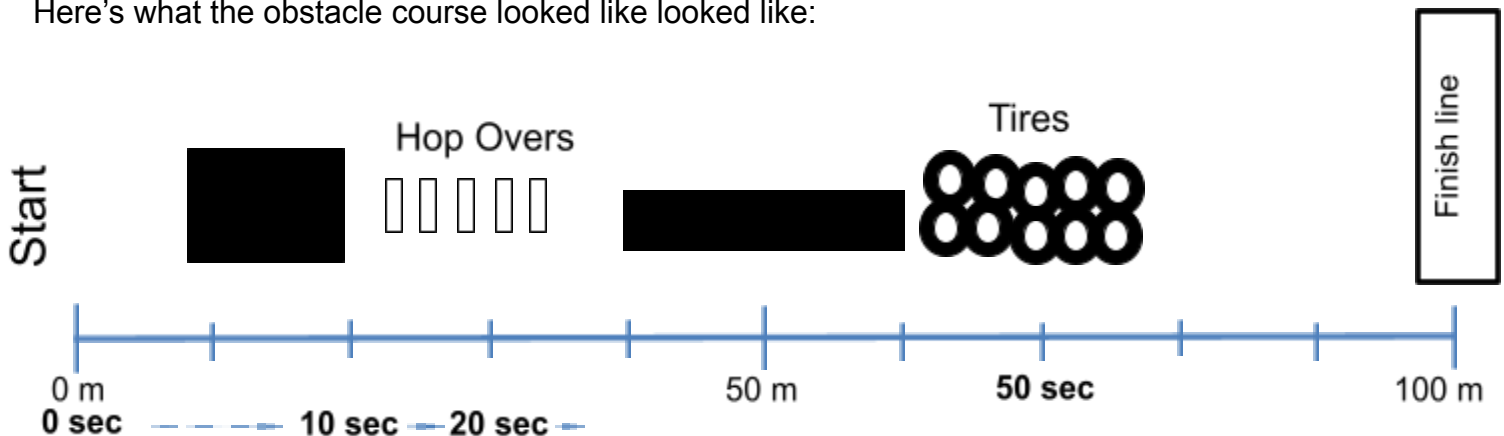
Part #	Scientific Name	What it does
1	Flower	Helps the plant reproduce, or make more plants
2	Stem	- Holds the plant up - Lets water and nutrients get to other parts of the plant
3	Leaves	Makes food for the plant
4	Roots	- Holds onto the soil so the plant doesn't move - Picks up water and nutrients from the soil

Look at what you wrote about each plant part. How do your thoughts match up with what the class learned in the video? Label each part with its scientific name. Add any information from the class's chart that you did not have in your notes.

During after-school running club, Chandra's class did a timed obstacle course. She wants to know how fast she finishes the course.

When have you or someone else had to measure how fast something moves? Think of some examples.

Here's what the obstacle course looked like:



Her running club coach says that they're going to do the same obstacle course next month. Chandra wants to move faster the next time she does the obstacle course. Her teacher recorded where she was every 10 seconds. Use the diagram to figure out how far she went during each 10 seconds of her race. Fill in your answers in the shaded column below. The first 2 are filled in for you.

Time (seconds)	How far she moved in 10 secs (meters)	How far she moved so far (meters)	Where Chandra was in the obstacle course
0:00	0m	0m	Start line
0:10	20m	20m	Tunnel

0:20		30m	Hop overs
0:30		40m	Balance beam
0:40		65m	Tires
0:50		70m	Tires
0:60		100m	Finish line

Take a look at Chandra's data. During which parts of the course do you think Chandra was moving fast? How do you know? Where was she moving slowly? How do you know?



One way we describe how something moves is to tell how fast it moves. Scientists call this **speed**. To figure out speed, you need to know the **distance**, or how far something moved. Chandra measured this in meters. You also need to know the **time** it took to go that far. Chandra measured this in seconds. Speed is the distance something has moved over a certain amount of time. It can be measured in miles per hour, or meters per second.



Can you use **distance** and **time** to explain **speed**? Fill in the correct words to complete the sentences below. Use the word bank below to help you.

Word Bank

short

long

faster

slower

If Chandra has high speed, she covers a long distance in a _____ time.
She is moving _____.

If Chandra has low speed, she covers a long distance in a _____ time.
She is moving _____.