

## 4<sup>th</sup> grade: Smoke Alarms and Fire Sprinklers

Today your youngster learned some scientific information about life safety systems, specifically smoke alarms, carbon monoxide alarms, and fire sprinklers. It was a busy day with a lot of hands-on activities.

We used a teaching technique that is new to us this year, part of our process of making the information more relevant to the students. We set up four stations:

#1: making alarms work

- There are a few battery-operated alarms
- Students insert batteries correctly (not as easy as you may think).
- Students press the test button and learn how to test their own alarms

#2: decoding the sounds of alarms

- Students press the test button on the alarm and listen to three different patterns of “beeps”
- Using a reference chart, students decipher what the alarms mean.

#3: placing home fire sprinklers in the best locations for them in a house, and that only the sprinkler above the fire will go off

- There is an image of a house showing the pipes needed for fire sprinklers.
- We have put magnets and Velcro where each sprinkler should go. The youngsters place magnet or Velcro sprinkler in the right place, the idea being that the sprinkler that is activating is over the fire and all others are not activating.

#4: put together an actual fire sprinkler unit

- There are pieces of sprinkler assemblies that slide together and apart.
- There are also a handful of blue craft pipe cleaners; these are ‘water.’
- The youngsters put the sprinklers together and put the ‘water’ so it comes out.

Since the youngsters had only three minutes to do their activity and complete the worksheet, it was busy, a bit hectic, and very rewarding!

Following are some YouTube videos you may want to watch with all your youngsters. Have your fourth grader explain what he or she learned and how that relates to each video!

<https://www.youtube.com/watch?v=ekGazrZ3fls>

<https://www.youtube.com/watch?v=zUqEPiAnKYA>

<https://www.youtube.com/watch?v=J9zEi1otL88>

[https://www.youtube.com/watch?v=GVE\\_ntBilDo](https://www.youtube.com/watch?v=GVE_ntBilDo) Smoke Alarms May Not Be Enough to Wake Kids in a Fire – This is an extremely important video for all parents to watch. The information may shock you!

***Thank you for letting us work with your students!***