

# Exploring Fire Safety

Preschool Classroom

## Phase 3

### Sharing and Representing What The Children Learned



The student is building a large model fire truck.

Students prepared several different products to convey what they learned about fire safety. They created a representation of a fire truck, a model house complete with fire extinguishers and smoke alarms, plus an iMovie demonstrating proper fire safety techniques in case of fire.

### The Construction of a Fire Truck

Initially, students made small representations of fire trucks using boxes and junk. Soon however, they wanted to make a huge fire truck that could be displayed during the culminating activity. The students who were interested discussed and drew pictures of what their truck should look like. Incorporating all of their ideas, the group began their work.



The children plan and draw their ideas for their collaborative fire truck.



This child sketches her vision of the fire truck.

The students made a list of things that they wanted to see placed into the design.

- JG: A hose, three or five hoses. How many are on a fire truck?  
MP: Gears. A very important thing is a gear. Six people can sit in the fire truck.  
MNJ: Tires. Four tires.  
KAM: Two sirens on the front near the bumper.  
AW: Seats and a steering wheel.

Students inventoried the boxes and junk that were available. They didn't think that any box was big enough. The teacher took them to an extra storage area where she found one big box and a medium size box that could be used for the body of the structure. The students carried the boxes into the classroom and began constructing the fire truck.



The boxes and Styrofoam pieces begin to shape into the fire truck.

Each person worked on a special area. AW was in charge of the wheels. RS focused on the siren and lights. JG, MJ and TM created water hoses from various cardboard tubes. CB and MP worked on the steering wheel area and seat for a driver. Children added Styrofoam sheets to the top of the cardboard boxes to hold sirens, lights and a ladder. ES suggested that yogurt cups could be used for sirens and lights. NH and ECG transformed a Styrofoam packing sheet from a computer box into the front of the truck that held the headlights. Day after day, the group worked together to construct the fire truck. The truck was so big that it took up the whole table.



Painting the fire truck is a long process because it is so big!



Students discuss which brush to use.



Covering the top of the fire truck is tedious work!



It takes team effort to paint the huge representation of the fire truck.

Students made many collective decisions. Students debated what color to paint their fire truck. To make their representation more realistic, they consulted the digital photographs of the Champaign fire truck that teachers took on the field trip and hung in the dramatic playroom. They decided that red looked most like the truck that they saw. They shared paint cups and brushes and enhanced their problem solving and cooperation skills. Students had authentic opportunities to work as a team to accomplish shared goals. They painted their truck each day during project/activity time for several weeks.

Before the culminating activity, students added labels so that parts of the fire truck could be identified. They proudly displayed the finished fire truck on top of two shelving units, placed side by side. Later, the teachers and students included their fire truck in the annual school art exhibition.

### Constructing a Model House



Students mark where fire extinguishers and smoke alarms are installed in a house.



This is the beginning stage of a representation showing where smoke alarms and fire extinguishers are placed in a house.

To represent what they had learned about fire extinguishers and smoke detectors, another group of students made a representation of a house from huge cardboard boxes. First they met to examine a dollhouse that a parent donated to the room. They discussed all the parts of the house and realized that they could make a model house, also. Students made drawings of the house and talked about the different areas that they wanted to include. Their house contained an upstairs

and a downstairs. Students designed steps, a garage and a fully outfitted kitchen. They placed fire extinguishers and smoke alarms near the stove and upstairs in the hallway. Two students added ropes so that anyone could climb out of the house and up to the roof in case a fire broke out. The finished house was a cut away exposure. The students attached their drawings to the house to show the various parts that they thought were important.

### **Creating the Fire Station**

The biggest challenge was to change the dramatic playroom into a fire station. The teacher invited anyone who was interested to join a discussion about how to do this during project/activity time.

T: What do we need to turn this place into a fire station?  
BL: Fire pole  
KM: Cut a hole in ceiling for fireman to slide down  
EGC: Fire truck  
CB: Steps to get to bedroom & pole  
RS: Siren curled up with light that goes through tube  
JG: Fire truck  
IF: Stairs steps go upstairs  
ER: Fire truck  
MJ: Fire truck  
RM: Bedroom - 500 beds  
ER: Slide  
AW: Beds  
WK: Doors for fire trucks  
MNJ: Restroom  
MP: Sleep in bed

The teacher took notes on chart paper as the children spoke. She encouraged them to think about the trip to the fire station again. Children added thoughts but were not at a stage to begin construction. The next day the group met and looked at the previous list. They added the following items:

WK: A trap door for quick escape  
RS: A siren to warn the fireman that there's a fire  
JG: Tools  
ECG: A fire truck, a real one  
ML: Fire stuff

The teacher told students that they could sign up to transform the dramatic play room into a fire station during project/activity time. On the following day, the students discussed how to place a fire pole in the room. The teacher reminded the class of the discussion several days earlier about cutting a hole in the ceiling so the pole could be placed there. She pointed out that the classroom is located below an office space. If they cut a hole in the ceiling, it would create problems for

the offices above. A volunteer fire fighter who visited the class suggested placing a black paper circle on the ceiling to give the effect of a hole. The children liked this solution and one person volunteered to cut the circle.

Part of the group volunteered to begin making the fire pole. They sorted through boxes and junk to find materials. They found wrapping paper tubes. A small group of girls planned what they would need to attach the tubes together. They decided on masking tape. AW and MP lead the group and showed the others how to tear the tape and attach it to the tubing. Lots of masking tape went into this part of the project!



The children are constructing their fire pole.



It took patience to tape the tubes together.

Unfortunately, the pole would not hold the children's weight. In fact, the children could not get the pole to stand by itself. A parent brought a carpet roll tube to school. It was stronger and taller. However, the tube did not reach the ceiling and would not stand on it's own either. The group discussed all the possibilities during project/activity time. As they sat in the dramatic playroom, the teacher spotted a volleyball standard outside on the playground. It would hold the tube upright and be sturdy enough for children to slide down. The group went outside and brought the standard into the dramatic playroom. The tube just fit! It had a huge base so it would not tip over. Finally, everyone could slide down the fire pole.

The fire pole was added just underneath the black construction paper circle. It was used daily for dramatic play. The students made beds from cardboard pieces and created pillows and blankets from fleece material. These were placed on the fire fighter's beds. Students also fashioned a computer, mouse and cell phone from boxes and junk materials. The fire fighters recycled many pieces of junk to become useful tools in the "fire station."



The student is writing a "Save" sign for his fire truck construction.





The student fire fighter role-plays cooking at the fire station.



The student fire fighters are eating their snack in their beds while they wait for a fire call.

Teachers placed chart paper on an easel in the “fire station.” After each fire call, the teacher listened to the children tell their story of what happened when they responded to the fire call. The teacher recorded each report on chart paper and hung the reports on the wall at the end of each day. Children read and reread their stories of past fire calls. Parents became interested too and checked the dramatic playroom for the most recent fire call stories. Eventually, one fire fighter wanted to write down his own words. He asked the teacher to help him when he made a mistake. He knew about the special tape that hides written mistakes on chart paper.



The teacher takes dictation from children when they return from their first fire call.

Using the fire station was now a daily choice during morning project/activity time. Many children chose to be a fire fighter for the morning. They liked sleeping in the beds and awakening upon hearing the fire call come into the station. Some worked at the “computer” using the mouse and keyboard. There was always someone cooking in the kitchen of the fire station.

When going out on a fire call, the students donned fire hats and grabbed a hose. Off they would go to put out the fire! Most of the time the destination was the computer room, which happened to be the furthest point away from the fire station. Sometimes it upset the children in the computer room who were working quietly or reading books silently. The fire fighters learned to quickly contain their fires and come back to the fire station to make the report so as not to disturb the readers and computer users. When the huge fire truck representation was on display in the main classroom, it was used as a prop to put out fires, too. The fire fighters hooked up a hose

and doused the fire. Everyone enjoyed using the fire station whether it was sliding down the fire pole, cooking a meal or sleeping in the beds. The fire station remained open for a month.



A student fire fighter slides down the fire pole.



A younger fire fighter watches the older student use the computer in the fire station.



KM uses his fire hose to extinguish the fire.



Several fire fighters work together to extinguish the “flames.”

### **Creative Stories about Fire**

Children created stories about fire and read them to the class during large group meetings. They illustrated them with markers, colored pencils or crayons. While EG shared her illustrations, students began to comment and ask questions.

- IPL: Oil and water make a fire. Is that steam or smoke?  
EG: It's fire.  
RS: Why is fire on every page?  
EG: The fire is shrinking!



“Someone made a fire  
for marshmallows and  
hot dogs.”



“The person wanted fire  
to stop shrinking but it  
did not.”

IF's story had no illustrations:

There was a fire on a big plane. The plane called the airport firefighters and then foam sprayed on the plane. The fire got put out.  
The End.

Other children illustrated picture books about fire. They drew fire trucks, fire extinguishers, smoke alarms, and scenes with fire. Children eagerly shared their books with others in the room.

### Reflecting on What Students Learned

In Phase 3 of the project investigation, the teacher finds ways to ascertain what students know that they did not know before. Sometimes they personally interview students. Other times, students create murals or group stories reflecting upon what they have learned about the topic. At one large group meeting, the teacher videotaped the children sharing what they had learned about fire safety.

- NS: Don't run around when there's fire. It might crash into you.  
MJ: You should not be scared of fire fighters.  
IPL: I'll tell you what I learned. They slide down the pole for fun to put out a fire.  
AW: You have to crawl under smoke when there's a fire because smoke goes up high.  
KM: The smoke alarm tells you when there's a fire. It goes BEEP, BEEP, BEEP, BEEP.  
NH: The fire fighter has an axe to knock down doors.  
CB: They're not supposed to go down that pole for fun. They do it so they can get to their engines faster.  
RS: Don't be playing around when you think there's going to be a fire starting.  
T: What happens if you play around near a fire?  
RS: You might get hurt.  
IF: When you put the top on the candle the fire disappears because there is no oxygen.



The teacher gleaned from this conversation that students had learned a great deal about fire equipment and the serious nature of putting out fires. Students also had an opportunity to web their thoughts about what they had learned after completing the fire safety investigation (Student Fire Safety Topic Web 2).

As a review, the teachers revisited some of their questions and asked students to respond:

What causes a fire?

IL: A lightbulb and a lighter match, an electric wire.

MJ: Wood and leaves and bark from the tree when fire gets on them.

EG: When you are cooking something and it's hot, that might start a fire.

What equipment does a fire fighter use?

NS: Hose, fire extinguisher, and you use axe to cut down doors and windows

CB: Hoses and axes

RM: Hose

IF: Water that comes out fire hoses

What is at the Fire Station?

ER: Food !!

NS: Brass pole for sliding down to fight fire at night.

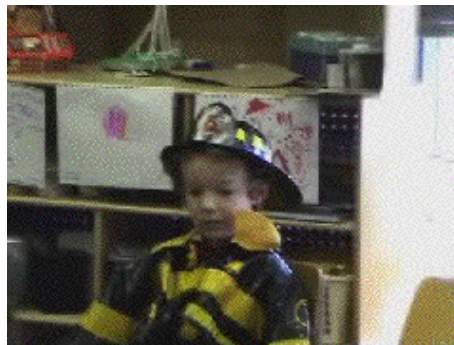
RS: Fire trucks, bedrooms, and the pole.

MSJ: Fire truck, fire hats, a kitchen and dishes, fire hose.

Some students dictated fire safety tips that they wanted their parents to know. They decided to make a handout for parents that described their safety tips.

### **Open House for Families**

The teachers and students invited family and friends to the school for the culminating activity. The children shared information about fire safety.



The student shares what he knows about fire safety during the culminating event.

The group took turns explaining the house that they built which held fire extinguishers and smoke alarms, the fire truck representation and general safety tips. Here are a few ideas that they shared:

- IF: Don't set fire in a forest. Fire can burn down a whole forest.  
WK: You shouldn't go under a table it might collapse. You will get hurt.  
RS: You might get burned if you go into a burning house.  
MP: If there's smoke all over your house, then you crawl.  
T: Why do you crawl?  
MP: Smoke is up and air is down.  
MJ: Never play with matches. Adults should always light the matches.  
TM: Never play with lighters or matches because they are dangerous for you to play with. If you ever drop your match that has fire on it, don't hide. Go outside. The fire can burn you and find you very easy, too. Everyday that you see a match or lighter go get your parents.  
MJJ: My grandma was doing matches at the birthday cake. It was my turn to blow.

Children took parents around the room to read the walls that were filled with all of the documentation about the project. The children's stories and books were on display for all to read. Children distributed the fire safety tip sheet.

***Fire Safety Tips for Parents***

March 21, 2003

1. You should keep a flashlight on your nightstand and keep a pair of shoes near your bed. – WK
2. Get out of the house quickly when the smoke alarm says, "Get out, get out, get out!!" – NS
3. You need to watch out for lighters and matches because you might get burned. – TM
4. You should never go under tables because it's bad because the fire might be on the table and the table might crash down on you. – KM
5. When you see a fire, put water in the fire to put out the fire. – JG
6. Don't go back into the burning house. - BL

To conclude the open house, everyone viewed the two iMovies that the teachers made to capture the students' interest in role-playing about fire fighters and fire safety. The students wrote a play about friends who gathered together for dinner but a fire broke out at their house. They dramatized the following safety tips: dialing 911 to report the fire, stop drop and roll when one person caught on fire and crawling out of the house to avoid the smoke. The teacher videotaped the students acting out their play and then added music to enhance the iMovie. Students colored

their scenery on overhead transparencies. During the play, the teacher changed the scenes by switching the overheads. Their movie was entitled, *My Greatest Fire Safety Movie*.

The second iMovie depicted the *Day in the Life of a Preschool Fire Fighter*. The teacher videotaped and edited some of the children's fire calls. Both movies were popular and several parents asked for copies of the movies on CD. It was an easy way to share what the students had learned with others.

Throughout the project, students' activities and products depicted gains in literacy and vocabulary. Students corrected each other about the terminology to use for fire tools and incorporated fire safety tips in their dramatic role-playing. Some of the vocabulary they incorporated into their every day language included:

### Vocabulary

Aerial ladder	Fire fighter	Hood
Axe	Fire	Hose
Badge	Fireplace	Matches
Button	Fire station	Safety
Coat	Foam	Siren
Crawl	Get out!	Smoke
Danger	Gloves	Smoke alarm
Fire alarm	Guard	Stop, drop and roll
Fire drill	Hazardous	Volunteer fire fighter
Fire extinguisher	Helmet	Water

### New and Deeper Understandings

The students had very little knowledge about fires and fire safety before we began. During the fire safety project, students' understanding about fire safety grew. They gained specific knowledge about fire fighting equipment. At a very basic level, the children practiced safety measures such as stop, drop and roll. The monthly fire drill had a deeper meaning attached now that they were learning about fire safety.

The students demonstrated that they had acquired a true understanding of what they saw at the fire station by returning to school and building a recreation of a fire station in the dramatic playroom. They included all aspects of the fire station from the kitchen to the fire truck in the garage.

The students became comfortable with fire fighters and their gear. Each fire expert talked to the children about the importance of not hiding during a fire. The students learned that it is unacceptable to be under a table or bed or hide in a closet if a fire breaks out.

The students enhanced their cooperation skills as they played together in their "fire station." It was a popular choice area during March. The children organized themselves to go on fire calls and come back to report them. Most students enjoyed the fire safety project. If they were not

engaged in role-playing in their “fire station,” they were helping to build a representation such as the fire truck or the house.

The interest in literacy increased. Several students wrote about fires and wanted to share their stories at large group meetings. Even their artwork depicted a fire theme. They drew campfire scenes or a house on fire. They became fully engaged listening to stories about fire trucks, fire boats and fire fighters. In the evaluation section the teachers share their reflections about the project and evaluate it by examining the documentation for growth of the group as a whole and for specific students (student portfolios).