



Fire Safety Code Buster – Maths Activity

Description

The Fire and Rescue Service know how important it is for everyone to understand what to do in the event of a fire. It is important for children to understand how their actions can help to keep them safe and how they need to act quickly in an emergency. This lesson exposes the children to important fire safety messages and how they can stay safe by knowing what to do if they are involved in a fire. It also reinforces the fact that fire fighters help us but we must only call 999 when it's a real emergency. By using maths skills, the children can practise their use of the four operations by solving calculations to find the hidden messages.

General Information

Session Focus / Theme – Fire Safety at Home	Recommended Key Stage / Age – KS1 – Lower KS2 / 5-8 Years
English Curriculum Focus – Maths – Four operations and problem solving	Timing – 30 Minutes

Preparation

- Resources – Code-busting worksheets – Differentiated worksheets covering Year 1 to Year 4 maths objectives. Select the appropriate level for the children and their ability range. Answer sheets available for each code-busting challenge.
- Teacher notes – Part of learning to stay safe is teaching children how our behaviour can protect us from harm. Learning how to react to a smoke alarm should involve: knowing how to call for help, having a safe escape plan and understanding that you never go back into the building until the Fire and Rescue Service have attended.





Other Cross-curricular links

Pupils will also use skills in;

- Maths – Four operations:
 - Year 1 – Add and subtract one-digit and two-digit numbers to 20.
 - Year 2 – Recall and use addition and subtraction facts to 20 fluently.
 - Year 3 – Recall and use multiplication and division facts for the 3 and 4 multiplication tables.
 - Year 4 – Recall and use multiplication and division facts for multiplication tables up to 12 x 12.
- PSHE – Health and Wellbeing:
 - KS1 – recognising risks in everyday situations and what action to take to minimise harm, how to keep safe at home and fire safety, how to get help in an emergency.
 - KS2 – recognising hazards that may cause harm, injury or risk in the home and what they can do to keep safe, how to respond and react in an emergency situation.

Key Vocabulary

Stop, Drop and Roll Smoke Alarm Emergency Firefighters 999
Matches Lighters Hoax Dial

Pupil Learning Objective

I will learn important safety messages about how to react in the event of a fire.
I will use my maths knowledge to solve problems using the four operations.

Teacher Expectations

By the end of the lesson pupils will;

Know...

What you should do if you hear a smoke alarm or see a fire.

Understand...

That how we behave in an emergency can help to protect us from danger.

Be able to...

Solve a range of mathematical problems involving the four operations and reveal the hidden safety messages.

Expected Progress

Children will be exceeding expectations if they can complete all the mathematical calculations to reveal the hidden safety message. They should also be able to understand, and explain to someone else, the safety message and how it could help in the event of a fire emergency.





Introduction

This activity could be used alongside learning about fire safety, as part of a PSHE unit of work, or as a standalone maths activity to engage the children in solving calculations using the four operations. In either use, the children will benefit from a demonstration of how to carry out the activity and how to link their answers to the letters. Discuss the theme of the activity and how the messages hidden in the codes are important safety messages that everyone needs to know. Ask the children if they already know who will help us if there is a fire? Do they know what to do if they hear a smoke alarm or smell a fire? They might already have an idea what some of the messages could be.

Main Activity

What	How
Challenge	Complete one of the safety code busters, appropriate to their age, with adult support.
Awesome Challenge	Complete one of the age-appropriate code busters independently.
Mega Challenge	Complete multiple age-appropriate code busters.
Colossal Challenge	Complete code busters targeted at a higher age than their own, showing that they can use a wider range of multiplication facts and addition and subtraction skills.

Plenary

Share the messages that the children found. Ask the children who they could share these messages with beyond the classroom. How could you teach other people about the safety rules that you have learnt? (This could lead to extension work or homework to present the messages as posters to be displayed at home and at school) Can they think of any other important safety messages that could help people?

Assessment for Learning

Observe the children throughout the activity to assess their confidence with the maths calculations. Discuss the safety messages they are finding and assess the child's level of understanding from their responses. Look at the final outcome having completed the challenges. Were they successful in uncovering the codes correctly?

Home Learning

Take the sheets home and share the messages with family. Create an eye-catching poster to show the messages clearly. Create their own hidden message using the code-busting ideas from the lesson.



