

Research Information

Teaching five- and six- year-olds fire safety messages and behaviour

The *Be Firewise* learning programme requires five- and six-year-olds to learn safety messages and use fire safe behaviour. The children may need to recall and use the knowledge and behaviour in a crisis or emergency situation later in their lifetime.

This is quite a big ask for a five- or six-year-old. However, research into road, water safety and fire safety education shows that children of that age can do this if the learning is approached in a specific way.

To understand this we need to know something about how our memory works. When we learn something new we first put the knowledge in our temporary memory. We have to process it, or internalise the knowledge, to move it into our stored or retained memory.

As adults, we have several ways of processing knowledge. We might write something down, say it out loud, check it has meaning by relating it to our lives, or talk about it with peers, family or friends. If we are learning a new skill or behaviour we will practise it until we have it right. We might visualise ourselves doing it and actually practise the skill or behaviour.

Five- and six-year-olds have fewer options for processing knowledge. For example, they cannot write the knowledge down, read and re-read it.

What five- and six-year-olds need to do to remember something is talk through the knowledge or behaviour as they are learning or practising it. They need to repeat the information or behaviour as often as possible, describing what they are doing as they are doing it. This helps them transfer the knowledge from their temporary memory to their long-term memory so they can recall it later.

Where possible, children need opportunities to revise or revisit their learning. The new *Be Firewise* programme will ask teachers to review key fire safety messages and behaviour when the class does a fire evacuation drill every school term.

Research shows that children aged five and six can learn and retain safety messages and safe behaviours if:

1. the amount of new learning is kept to a minimum
2. when a message or behaviour is introduced, the children are given many opportunities to process the knowledge or practise the behaviour
3. each time the children process the knowledge or practise the behaviour, they describe what is happening and place themselves in the situation
4. where possible, children actively 'do something' to practise the behaviour
5. the children have opportunities to discuss their knowledge and practise skills at regular intervals after they have learnt them
6. children can relate the learning to themselves, their family and lives, and to situations at school and in the community.

This means the new *Be Firewise* programme will:

- suggest ways teachers can introduce new fire safety messages or behaviour to children so they can relate it to what happens at home and school

- give teachers a range of activities they can use that will help children process the new knowledge, and learn and practise the new behaviour.

Activities will be something like children drawing a picture of themselves escaping from their bedroom and explaining it to the teacher as:

'This is me and my brother Sam. We see the smoke outside the door. We are climbing out the window.'

An adult looking at a picture drawn by a five- or six-year-old may not recognise this event from the drawing, but the purpose of the activity is the thinking the child has put into the drawing and the explanation they provide, not the finished artwork.

Undertaking activities like this will help the child personalise the learning. If a child was, for example, colouring in a picture of children escaping from a room, there is no real learning taking place.

Every time a child practises getting out of a room when they hear a smoke alarm or the school fire alarm and talks about what they are doing they are actively reinforcing their learning.

If a child does a drama or role play, or uses puppets to tell the story of getting out of their bedroom when there is a fire they are processing their knowledge. The child is imagining the situation and practising the safe behaviour. They must talk about what not to do and then do the right thing, preferably many times over.

How research shapes safety education programmes for five- and six-year-olds

Safety education programmes for children aged five and six:

1. use story books with illustrations that are believable and that children relate to
2. do not name the storybook characters so the teacher can encourage each child to put themselves in the story (this means that children illustrated or photographed in New Zealand stories must represent the ethnic diversity in the country and live in houses children can identify with)
3. provide as much practice of safe behaviour as possible
4. provide drama, art and literacy activities that encourage children to place themselves in the safe or unsafe situation and describe what they are doing to be safe.

Safety education programmes for children aged five and six do not usually use cartoon characters. They use life-like characters to anchor children to the real, not the fantasy, world.

The average child aged five to six is likely to make a strong distinction between the fantasy and real world. The child may spend a considerable amount of time in the fantasy world of television cartoons like *Dora the Explorer*. The characters in the cartoons show them this is the fantasy world, and children are not frightened when these characters have scary adventures.

If safety learning is to be effective it must be anchored in the real world, so educators use real characters that children see as being 'like them'.

Because older children understand the difference between the fantasy and real world in a different way to five- and six-year-olds, cartoon and real characters can be used to introduce safety messages and behaviours.

The developers of safety programmes for five- and six-year-olds are faced with the dilemma of presenting danger and potential death realistically, but not developing fear in children. An example would be using a video where a fire starts when someone falls asleep while smoking a cigarette. Many children aged five and six live in families where this is a possibility. Children cannot change an adult's behaviour but if they learn how dangerous the behaviour is they may become very anxious.

A *Be Firewise* programme for five- and six-year-olds cannot ignore the reality that people and pets die in unsafe fires and the programme needs to address this appropriately without making children fearful.

New *Be Firewise* programme and new curriculum for 2010

The new *Be Firewise* programme will be introduced and extensively promoted to principals, teachers and boards of trustees in late 2009 for use in 2010. Teachers will be using a new curriculum in 2010, and the rewrite of *Be Firewise* will match the programme to that curriculum.

The new curriculum encourages schools to develop learning programmes specifically related to the needs of their students and communities, and provides the opportunity for schools to include a fire safety programme for five- and six-year-olds. However, principals and teachers must recognise the need to teach fire safety.

This highlights the need for *Be Firewise* co-ordinators and firefighters to promote the *Be Firewise* programme to schools, and new promotional material will be produced for this purpose.

The information for principals and teachers will encourage schools to deliver the *Be Firewise* programme to five- and six-year-olds. Because the learning is complex, it is not suited to new entrant five-year-olds (or those in their first term of schooling).

Length of the new *Be Firewise* programme

Feedback from schools and firefighters shows the original programme was too long, therefore it will be reduced so there are:

1. fewer key messages for children to remember
2. plenty of opportunities for children to practise fire safe behaviour and do activities that extend their understanding of the fire safety messages.

The programme will not specify a teaching or learning time, but it will be a minimum of six 'learning sessions' long. This means new learning will be introduced on six different occasions and then teachers will do a range of activities with the children to process the new learning.

Schools will complete the learning programme over one or two weeks, depending on how much time they spend each day on the programme.

The programme will focus on:

- children understanding the difference between safe and unsafe fires, the speed of fire and the danger of smoke
- actions children can take to not start fires, for example, being safe with matches, lighters and candles
- what children should do when they hear a smoke alarm or a fire alarm
- getting out of a building as quickly as possible if an unsafe fire starts

- escape plans and going to a safe meeting place
- the key message get down, get low, get out.

The programme will not focus on the actions responsible adults should be taking to keep children safe, for example, not leaving cooking unattended, not placing clothing close to a heater, caring for a child who is burning or burnt, dialling 111.

In the first *Be Firewise* programme teachers spent many hours teaching children to dial 111. While this is a useful skill for five- and six-year-olds, it is NOT essential for keeping children safe in a fire emergency. It is an adult or older child's responsibility to dial 111 when there is a fire.

Some schools may still wish to teach their students how to dial 111. This material will be provided on the *Be Firewise* section of the Fire Service website as an optional extra to the *Be Firewise* programme.

Engaging parents, caregivers and whānau

The new *Be Firewise* programme will focus on encouraging families to develop and practise escape plans and to address fire hazards in their home.

A take-home booklet will be produced that, where possible, uses illustrations and photographs to promote fire safety messages and behaviour. It will be supported by a DVD families may borrow from their school.

Delivering the *Be Firewise* programme.

The *Be Firewise* programme is designed to be delivered by trained educators only – that is, teachers – and supported by a visit from firefighters. The firefighters' visit needs to occur at the end, or near the end, of the learning programme so the firefighter(s) are reinforcing the learning children have done in class.

If a school asks firefighters to deliver the learning programme the *Be Firewise* co-ordinator or firefighter will refer the school to a new section of the Fire Service website for teachers. The website will explain why firefighters do not deliver the programme and encourage the school to deliver the *Be Firewise* programme, then use a firefighter visit to support the children's learning.

The firefighters' visit

As part of the development of the new *Be Firewise* programme, the firefighters' material will be updated and a new video and booklet developed.

The firefighters will be supporting a key aspect of the new curriculum for five- and six-year-olds; that children learn about people in the community who help them.

When firefighters talk to children they give weight or importance to the fire safety message and behaviour. The firefighter checks that the children understand the fire safety messages and reinforces the fire safe behaviour by practising get down, get low, get out with the children.

The firefighters' visit is the final reinforcement of the fire safety learning – the children have a respected member of the community come into their class and talk about fire safety.