



## Lesson Plan: Level crossing safety

*PSHE and Citizenship      Key stages 3 and 4      11 – 16 years*

### Overview

There are over 7,000 level crossings on Britain's rail network. They provide a safe way to cross the railway if used correctly – but misuse or user error can have tragic consequences.

**Level crossing safety** is a teaching package that looks at the most typical types of user error and misuse, the causes of misuse and error; the potential consequences and – most importantly – **how to use level crossings safely**.

There are many different types of level crossings on Britain's rail network. We have provided a guide which allows you to focus on safe use of the type(s) present in your local area.

### Learning objectives

By the end of the lesson, pupils will understand:

- Level crossings are safe if used correctly
- There are three different types of risk:
  - User error
  - Intended misuse
  - Equipment failure. Equipment failure is extremely rare but students should be encouraged to stop, look and listen – i.e. be aware of their environment and take responsibility for their own safety
- The consequences from misuse or error
- It is not only the victim or the perpetrator that's affected by an accident or incident

### Benefit to students

Learning how to use level crossings safely and understanding the risks associated with misuse or user error will be particularly relevant to:

- Pupils who move from primary to secondary school and may therefore start commuting to and from school more independently
- Pupils whose daily school commute involves the use of level crossings
- Pupils in areas where level crossings are as regular a feature of their everyday environment as zebra crossings

Given the great number and range of types of level crossings in Britain, all children and teenagers will benefit from understanding the risks and knowing how to stay safe.



### To start with

Rather than focus solely on level crossing safety, you could run the lesson in terms of safe travel to and from school and during your pupils' leisure time.

Suggested questions to ask include:

- How do you travel to school?
- Do you need to cross roads when you do so?
- Do you need to cross a railway?
- What's the safe way to cross a road?
- What are the safe ways to cross a railway (foot bridge, underpass and level crossing)
- Can you think why crossing a railway could be different from crossing a street or a road?

As relevant to your class, you can then introduce why we are looking at level crossings in today's class.

To prompt discussion, play the video package: Is it worth running the risk?

The video module contains two videos: 'Lifesavers not timewasters,' from Network Rail's TV campaign on level crossing safety, and real CCTV footage of level crossing misuse.

Before watching, ask your class to note down behaviours they see as risky or dangerous. Pupils may want to work in groups or individually.

### Video module: Is it worth running the risk?<sup>1</sup>

#### Discussion

What risky behaviours could you spot in the montage?

- The children jump the barriers and run across the crossing when a fast train is approaching
- A man in suit calmly walks across the closed crossing. He's followed by a man who literally has his shoe clipped off by a train.
- A mother with a baby in a push chair runs across the crossing just before a train passes
- A group of teenagers are playing chicken and taunting the driver as a train approaches
- A driver 'weaves' through the barriers as they are just coming down
- A driver jumps the red flashing lights and just makes it before a fast train passes

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<sup>1</sup> Video footage supplied by Network Rail



**Can you think of reasons why someone could make an error or misuse a level crossing?**

In groups, discuss why someone would take such risks or what could lead to an error that could cost lives. Two newspaper articles can be used as further prompts.

**“I was late for work,” level crossing jumper who had shoes sliced off by 66mph train tells the shocking tale behind video**

Mail on Sunday, 14th February 2009

< <http://www.dailymail.co.uk/mailonsunday/article-1145625/>

**Heartbroken father tells of son's fatal level crossing accident**

Daily Record, Jan 31 2009

< <http://www.dailyrecord.co.uk/news/scottish-news/2009/01/31/heartbroken-father-tells-of-son-fatal-level-crossing-accident-86908-21085284/>>

Ask the groups to present their thoughts on why people take risks at level crossings. Once this is done ask the students to consider which 'class' of risk it is:

**User error**

- A person may not be aware of their environment because they are on their mobile, are listening to music with headphones, are wearing a hoodie or simply chatting with friends
- Complacency: if you use the same crossing regularly, it's easy get thinking that you know when the train is coming and that the barriers always go down way before the train actually arrives
  - Explain: the barriers go down by up to two minutes before a train is due at a level crossing but it can sometimes be as little as 30 seconds. You must not anticipate when a train will arrive because trains can run early or late or there might be other trains which are not shown on the timetable.

**Intentional misuse**

- Playing chicken
- Being fed up, stressed, late in a hurry – people are more inclined to take risks if they are angry, tired, moody or stressed

**Equipment failure**

- Equipment failure is extremely rare at level crossings, but to eliminate the risk, always stop, look and listen before you cross



### **Consequences of level crossing misuse or user error**

Get the class thinking of the consequences of level crossing misuse or user error and consider who could be affected and how. This could be a whole class discussion, group work or a research and writing piece.

#### **What kind of consequences could result from level crossing misuse or user error?**

The consequences include:

- Death
- Serious injury to the victim
- When vehicles are involved, serious risk to passengers and railway staff on train
- Criminal record and penalties ranging from a fine to a prison sentence
- Trauma to friends, family, railway staff and everyone involved in or witnessing the incident or accident

Who is affected?

- The victim
- Family
- Friends
- Railway staff who must deal with the incident

To stimulate the class, you can use this true story video as a prompt:

#### **Video module: The driver's story**

Train Driver Gary Chillingworth tells us about his experience when his train hit two teenage boys (video from the previously produced teaching pack 'A Good Journey')



### Activity ideas

- 1) Get your class to produce a poster for younger pupils on how to use the local level crossing(s) safely. The pupils can use photography, drawings, newspaper cuttings and of course, text. The poster could highlight typical things that can contribute to risk, such as wearing headphones or hoodies.
- 2) Network Rail, British Transport Police and many train operators have community liaison personnel who can be invited to give a talk or presentation at the school. Enquire at your local office or use one of the contacts at School Visits:  
<http://www.trackoff.org/SchoolVisits.aspx>



## Types of level crossings and how to use them safely

**NOTE:** these materials are for use in the classroom. They apply to pedestrians and bicycle or moped riders. They DO NOT address car drivers.

### Automatic full barrier crossing



This type has barriers across the whole width of the road, on both sides of the railway; warning lights; and an audible alarm. There is often a white line for pedestrians to stand behind. Some crossings have tactile paving to let blind or partially sighted people know where to stand.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Be ready to stop outside the barrier or white line.
- 2) If the amber light is on or the red lights are flashing or you can hear the alarm, stop outside the barrier or behind the white line.
- 3) If the red lights keep flashing after a train has passed, **wait** – another train is coming!
- 4) Before entering the crossing make sure that your exit is clear.
- 5) Only cross when the barriers are fully raised, the lights are off, and there is no alarm.
- 6) If you are already on the crossing when the alarm starts or the amber light comes on, keep going.

### Automatic half barrier crossing



This type has a half barrier on both sides of the railway, warning lights, and an audible alarm. There is often a white line for pedestrians to stand behind. Some crossings have tactile paving to let blind or partially sighted people know where to stand.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Be ready to stop outside the barrier or white line.
- 2) If the amber light is on or the red lights are flashing or you can hear the alarm, stop outside the barrier or behind the white line.
- 3) If the red lights keep flashing after a train has passed, **wait** – another train is coming!
- 4) Before entering the crossing make sure that your exit is clear.
- 5) Only cross when the barriers are fully raised, the lights are off, and there is no alarm. **Never be tempted to zigzag around the barriers.**
- 6) If you are already on the crossing when the alarm starts or the amber lights come on, keep going.

**Gated crossing operated by railway staff**



This type has gates on both sides of the road. Railway staff will close the gates before the train goes through. Note: on some crossings the gates are permanently closed and you must follow the instructions on the signs to use the crossing.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Be ready to stop behind the gate or white line.
- 2) Before entering the crossing make sure that your exit is clear.
- 3) A railway employee will close the gates if a train is coming.
- 4) If the gates are across the road, wait in a safe place until the railway employee opens them and wait until they are fully open before crossing.
- 5) If there are no gates across the road, cross without stopping.

### Automatic open crossing with lights



These crossings have warning lights and an audible alarm but no barriers. If a train is coming, the lights will show amber and then flash red. The alarm will sound. There will often be a white line showing you where to stop. Some crossings have tactile paving to let blind or partially sighted people know where to stand.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Be ready to stop outside the crossing or white line.
- 2) Before entering the crossing make sure that your exit is clear.
- 3) If you hear the alarm or see the lights (amber or red), do not cross.
- 4) If the red lights keep flashing after a train has passed, **wait** – another train is coming!
- 5) Only cross when the alarm stops and the lights go off.
- 6) If you are already on the crossing when the alarm starts or the amber lights come on, keep going.

### **Open crossing**

Open crossings have no barriers, gates or warning lights. They do have a Give Way sign. Some crossings have tactile paving to let blind or partially sighted people know where to stand.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Be ready to stop in front of the Give Way line.
- 2) Look both ways and listen to check if a train is coming.
- 3) If a train is coming, stop in a safe place until it has passed and then **look both ways again**.
- 4) Make sure your exit is clear and that you have enough time to cross.
- 5) Cross quickly and stay alert.

### User worked crossing



This type has gates (or barriers) which keep the road or path **closed**. The gates must be operated by the user, and not by railway staff.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Look both ways and listen to check it is safe to cross. If a train is coming, wait in a safe place until it passes and then **look both ways again**.
- 2) If you are crossing with a bicycle or a moped and if it is safe to cross, open the gates on **both** sides of the railway before riding over the level crossing.
- 3) If it is safe to cross, cross quickly and stay alert.
- 4) Close all the gates or barriers after crossing.

### **User worked crossing with telephones**

This type has gates (or barriers) which keep the road or path **closed**, and telephones on both sides of the crossing. The gates must be operated by the user, and not by railway staff.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Look both ways and listen to check it is safe to cross. If a train is coming, wait in a safe place until it passes and then **look both ways again**.
- 2) If you are crossing with animals or a cycle or moped, you must telephone to get permission.
- 3) If you are crossing with animals or a cycle or a moped and if it is safe to cross, open the gates on **both** sides of the railway before crossing.
- 4) If it is safe to cross, cross quickly and stay alert.
- 5) Close all the gates or barriers after crossing.
- 6) You may be asked to telephone again to say that you have finished crossing.

### User worked crossing with miniature stop lights

This type has gates (or barriers) which keep the road or path **closed**, and telephones on both sides of the crossing. There are also miniature red and green lights. The gates must be operated by the user, and not by railway staff.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Stop and check that the lights are working. If not, telephone railway staff and follow their instructions.
- 2) If you are crossing with animals you must telephone to get permission.
- 3) You must not cross if the red light is on. If a train passes and the light stays on, **do not cross** – another train is coming.
- 4) If you are crossing with a bicycle or a moped and the green light is on, open the gates on **both** sides of the railway before riding over the level crossing.
- 5) If the green light is on, cross quickly and stay alert.
- 6) Close all the gates or barriers after crossing, making sure that the green light is still on.
- 7) You may be asked to telephone again to say that you have finished crossing.

**Footpath crossing** (including Bridleway and Station crossings)



This type of crossing has stiles, gates or a simple opening onto the track. Crossings with Bridleway access will have telephones on both sides.

To use the crossing safely, whether on foot, cycling or on a moped:

- 1) Stop before crossing the tracks.
- 2) You must decide if it is safe to cross. Do not cross if a train is coming - wait in a safe place until it has passed and then **look again**.
- 3) If you are crossing with a horse or the sign tells you, you must telephone to ask permission to cross. You may be asked to confirm that you have crossed by calling again at the other side.
- 4) If no train is coming, cross quickly and remain alert. Never stop on the crossing.

**Footpath crossing with lights** (including Bridleway and Station crossings)

This type of crossing has stiles or gates, and red and green lights. Crossings with Bridleway access will have telephones on both sides.

To use the crossing safely, whether on foot, cycling or on a moped:

1. Stop and check that the lights are working.
2. If they're not working then **don't use the crossing**. If there is a telephone, use it to report the problem.
3. If you are crossing with a horse or the sign tells you, you must telephone to ask permission to cross. You may be asked to confirm that you have crossed by calling again at the other side.
4. You must not cross if the red light is on.
5. If the red light stays on after a train has passed **do not cross** - another train is coming.
6. If the green light is on, cross quickly and remain alert. Never stop on the crossing.