Duration

20 minutes

Subject Focus

PSHE – Rail Safety

Age Group

KS3

Resources

* PowerPoint
* Teacher Notes (below)

Focus Vocabulary

* Electricity
* Trespass
* Level crossings

**Rail Safety Week 2025 Assembly**

**Learning Objective:** Students will understand rail safety, identify railway hazards, and demonstrate knowledge of safe behaviours to prevent accidents and ensure personal safety around trains and tracks.

**Suggested Use:** This resource has been created as an assembly for Rail Safety Week (16th – 22nd June 2025)

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| Teacher Notes | |
| Slide 1 | *Display as students enter and get settled.* |
| Slide 2 | **This week is Rail Safety Week.**  As we are approaching the summer holidays, and many of you will be off on trips with your friends and families and independently, it is incredibly important that you all know about how to keep yourselves safe around the railway. |
| Slide 3 | **What’s so great about travelling by train?**  Trains are the safest form of transport in the UK – 8 times safer than travelling by car!  Trains are also very fast – so you can get where you need to be, quicker.  But there are other benefits… You can have a meal or snack while you travel. You can go to the toilet. You can charge your phone, plug in a tablet or laptop to watch a movie or read a book! And you are very unlikely to feel travel sick.  Lastly, but perhaps most importantly for your future and climate change, trains are good for the environment. If you want to minimise your carbon footprint, take the train: it is the greenest form of transport after walking and cycling –and requires less effort!  One train can remove up to 500 cars off our roads – reducing congestion and pollution – which can benefit anyone with asthma or breathing difficulties. For a 30-mile journey, travelling by train instead of car can reduce greenhouse gas emissions by up to 86%. |
| Slide 4 | **How fast can trains travel in the UK?**  *Ask students to put their hands up for each answer.* |
| Slide 5 | **Trains are really fast!** 125mph is almost twice the speed of a car travelling on the motorway. We wouldn’t walk along a motorway. We should never think it’s safe to walk along a railway! |
| Slide 6 | **How far can a train travel before it comes to an emergency stop?**  Travelling at 125mph, how far do you think a train will travel after the driver has applied the brakes for an emergency stop?  *Ask students to put their hands up for each answer.* |
| Slide 7 | **Trains take a really long time to come to a stop!** The length of 20 football pitches (2km). That’s because trains have a huge mass and they travel really fast – 125mph – on rails designed to reduce friction.  And remember, trains run on rails so they cannot steer round objects in their path.  **Can a train driver see that far?**  No – a train driver is unlikely to be able to see a person on the tracks more than 5 or 6 football pitches away (500m) – and that’s on a clear day on a straight section of track.  **So, by the time the driver has seen you, would they be able to stop in time?**  No chance! |
| Slide 8 | **What coloured line must you always stand behind at a train station?**  *Ask students to put their hands up for each answer.* |
| Slide 9 | **The yellow line**  **Why is the yellow line important?**  Obviously, it keeps you away from the edge of the platform and the potential danger of dropping something – or yourself – off the platform. It is also particularly dangerous on the edge of the platform because not all trains stop at every station. Sometimes there are fast trains travelling through the stations at speeds of up to 100mph or more. The effect of such a big mass travelling at such a great speed causes air turbulence which can destabilize you and pull you towards the tracks. |
| Slide 10 | **Which coloured line must you always stay below at a train station?**  *Ask students to put their hands up for each answer.* |
| Slide 11 | See if you can spot it in this photo…  There is an orange line on almost all passenger trains in the UK. If I was on the platform and I put my hands up in the air I wouldn’t be able to reach the orange line, so it’s really high up.  **But what is it protecting us from?** The orange line keeps us away from the overhead power lines that power our electric trains. |
| Slide 12 | Around half of the trains in this country are powered by electricity and this number is rising. This means there is another hazard we need to be aware of in order to stay safe. |
| Slide 13 | **How much electricity do you think the overhead cables above the train track carry?**  *Ask students to put their hands up for each answer.*  25,000 volts.  Our homes and schools are powered by around 250 volts of electricity. I expect everyone here knows that you don’t poke metal knives in electric sockets or toasters and you don’t mix electricity with water because it would electrocute you – causing at best severe injuries… And the electricity on the railway is 100 x more powerful! |
| Slide 14 | **Electricity**  And that’s not the only place you will find electricity on the railways.  Overhead lines carry 25,000 volts but the third rail running alongside the rails carries 750 volts – 3 times the electricity power in our homes. The signalling location cases carry 650 volts to power all the signals up and down the track and there are cables that can be buried under any railway track with 25,000 volts.  And remember: the electricity doesn’t ever get switched off. Not at night or even on Christmas day.  Electricity is extremely dangerous if we choose to be unsafe. 9 out of 10 people who come too close to live wires and tracks die. |
| Slide 15 | **What do you think is happening here on these power cables?**  It’s electricity jumping. You need to know that electricity at voltages this high can jump up to 2 metres which means you don’t even have to touch the power cables to be affected.  ***OPTIONAL:*** We are going to watch a very short clip, Harrison’s story, which shows how dangerous that electricity can be. |
| Slide 16 | ***OPTIONAL:*** *Play the Network Rail video, Harrison’s Story (1 min 55 secs)*  *This video could be upsetting to students, we recommend you watch it in advance and make a judgement as to whether it is appropriate for your students.* |
| Slide 17 | Harrison, the boy in the video, climbed over a fence to get his ball. He didn’t realise he was trespassing – but he was.  Network Rail who owns the track do not give anyone permission to be within the area of the track without being a specially trained employee.  **If I was to sneak onto the track at a train station like these young people, what would I be fined?**  *Ask students to put their hands up for each answer.* |
| Slide 18 | If you trespass on the railway you could end up with a £1000 fine. There is CCTV at most stations so the chances are you will be caught.  But far, far worse than a fine would be life changing injuries – or worse – like Harrison. |
| Slide 19 | **Level Crossings**  There is one place, away from stations, where you are allowed to cross over the railway safely. Has anyone walked or driven across a level crossing?  A level crossing is a safe, controlled place to cross the railway provided you know how to use it safely. |
| Slide 20 | How do level crossings work?   * When the train is coming, the lights flash and a siren sounds. A few seconds later, the barriers come down. * After the train has passed, the barriers may stay down – sometimes there is more than one train so you have to wait until the barriers lift and alarm and lights stop before you cross. * You should always walk across a level crossing in case you trip over the rails. * Get off you bike and walk – bike wheels can get stuck in the rail grooves. * If you’re walking a dog, put it on a lead – and stay alert. * It’s also a good idea to take off your headphones or pause your conversations, however hilarious or important they may seem, for the seconds it takes to cross the crossing. |
| Slide 21 | Sometimes in the countryside, there are footpath level crossings where there are no flashing lights or sirens.  It’s not ideal and Network Rail would love to be able to replace them all with bridges, tunnels or crossings with lights but that’s not possible in the short run.  When you come to a footpath level crossing, you just have to do exactly what it says on the tin…  Stop, look both ways, listen carefully – the train driver will always honk their horn when they are approaching a footpath level crossing.  If you cannot see or hear a train, then and only then, walk carefully across. |
| Slide 22 | *Recap the four key messages.* |
| Slide 23 | Thank you for listening. |

Ideas for future linked learning

* Why not invite Platform in to deliver a FREE rail education workshop? As well as rail safety, we deliver workshops on:
  + Railway Careers
  + Journey Planning and Confidence to Travel
  + Sustainable and Healthy Travel
  + County Lines
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* Find out more by visiting [www.platformrail.org](http://www.platformrail.org)