

# Napo's Hazard Hunter: Lesson One – Identification of risks and hazards

(9–11 years)

## Teacher Guidance

It is never too early to introduce children to the basic safety concepts that for adults come under the umbrella of Occupational Safety and Health (OSH).

Napo is a charming character who can help children think, understand and act on safety issues. To find out more about Napo, click here: [www.napofilm.net/en/who-is-napo](http://www.napofilm.net/en/who-is-napo)  
There is a wide range of Napo films, so please feel free to explore them and use in your own classes.

Some of the basic safety concepts in this lesson plan can link to curriculum already being taught. This resource presents a range of great ideas which you can use to help integrate these safety concepts into your lessons. It can work as a lesson or be part of a wider project. It links to other subjects, as shown, but its main purpose is to use the engaging Napo films to teach children about how to take care of themselves and each other and recognise hazards.

The grid overleaf gives an overview of potential activities, objectives and resources required for the lesson. This is followed by a more detailed example three-part lesson plan with some ideas for extending the learning. In this project pupils will discover how to recognise the various hazards that might put them and their friends in danger. During this project they will be able to develop the skills of working together to put some of the learning into practice.

If you need more information on basic safety and health topics raised in this project, you can find it in the corresponding helpsheet for this lesson plan in the third section.



## Learning Objectives

### Lesson 1 – Napo’s Hazard Hunter: Identification of risks and hazards

- To recognise risks and hazards at school and at home
- To evaluate different levels of risks
- To work as a team to prepare materials that demonstrate the above learning

## Activity Overview

See Detailed Lesson Plan\*

40/45 minutes

### Hunt the hazard

Watch the Napo clip provided with this lesson: [www.napofilm.net/en/napo-for-teachers/risks-hazards-identification/video](http://www.napofilm.net/en/napo-for-teachers/risks-hazards-identification/video)

Film: Risky Business  
Scene – Risks at home  
Scene – Assess the risks

- Discuss and define the hazards shown in the scenes and what sort of other hazards they are aware of. Encourage children to explain what a risk and hazard is (see helpsheet).
- Hand out Hazard Spotting posters, and ask children to place a sticker wherever they find a hazard.
- Re-group and ask children individually to say what they have identified as hazards.

## Resources Required

- Napo film clip (provided)
- Stickers
- Hazard Spotting Posters

To download the provided resources, go to: [www.napofilm.net/en/napo-for-teachers/resources](http://www.napofilm.net/en/napo-for-teachers/resources)

## Links to Subjects/ Curriculum

### Personal, social and health education

- Household products, including medicines, can be harmful if not used properly
- Rules for and ways of keeping safe, including basic road safety, and about people who can help them stay safe
- To recognise how their behaviour affects other people

### Science

- To recognise that there are hazards in living things, materials and physical processes, and assess risks and take action to reduce risks to themselves and others
- Pupils should obtain an insight into the use of chemicals at home, their labelling and handling
- Handling of natural and artificial substances

### Citizenship/Education for civil life

- To recognise hazards and assess consequent risks

### Foreign/Native Language

- Writing simple sentences to complete a story with a beginning, middle and end structure



## \* Detailed Lesson Plan

### Learning Outcome

I will be able to explain risks to myself and others around my school and at home

### Lesson Objectives

- To recognise risks and hazards at school and at home
- To evaluate different levels of risks

### Starter

#### 5 minutes

Show the Napo provided with this lesson

- What is a hazard?
- Why should we prevent hazards for ourselves and others?

### Possible activities:

#### 40 minutes

Show the rest of the scenes provided with this lesson.

1. Make a list of the dangers as demonstrated in the Napo film.
2. Discuss why the clip work well to remind us of risks.
3. Encourage children to explain what a risk and hazard is.
4. Hand out Hazard Spotting posters, and ask children to place a sticker wherever they find a hazard.
5. Re-group and ask children individually to say what they have identified as hazards and why.

### Plenary and Assessment

At the end of the lesson pupils can make up a song, rap or rhyme that sums up what they have learnt about Hazard Hunting.

Teacher and students assess their learning using this tool:

**Gold:** I can explain at least three types of risk or hazard to myself and others.  
I can evaluate the level of risk.

**Silver:** I can explain a hazard and a risk (for myself and for others) at home and in the classroom.

**Bronze:** I can explain what a hazard is.

### Extension Work

Presentation/discussion on the variety of typical risks we may encounter based on a selection of Napo clips (road accidents, electricity, slips and trips, falls from height – e.g. stairs, chemicals, noise).

A list of potential Napo clips for extension work can be found here:

[www.napofilm.net/en/napos-films](http://www.napofilm.net/en/napos-films)



## Hazard Spotting Poster

Watch out ON THE BUILDING SITE of Hazard House



4/9



---

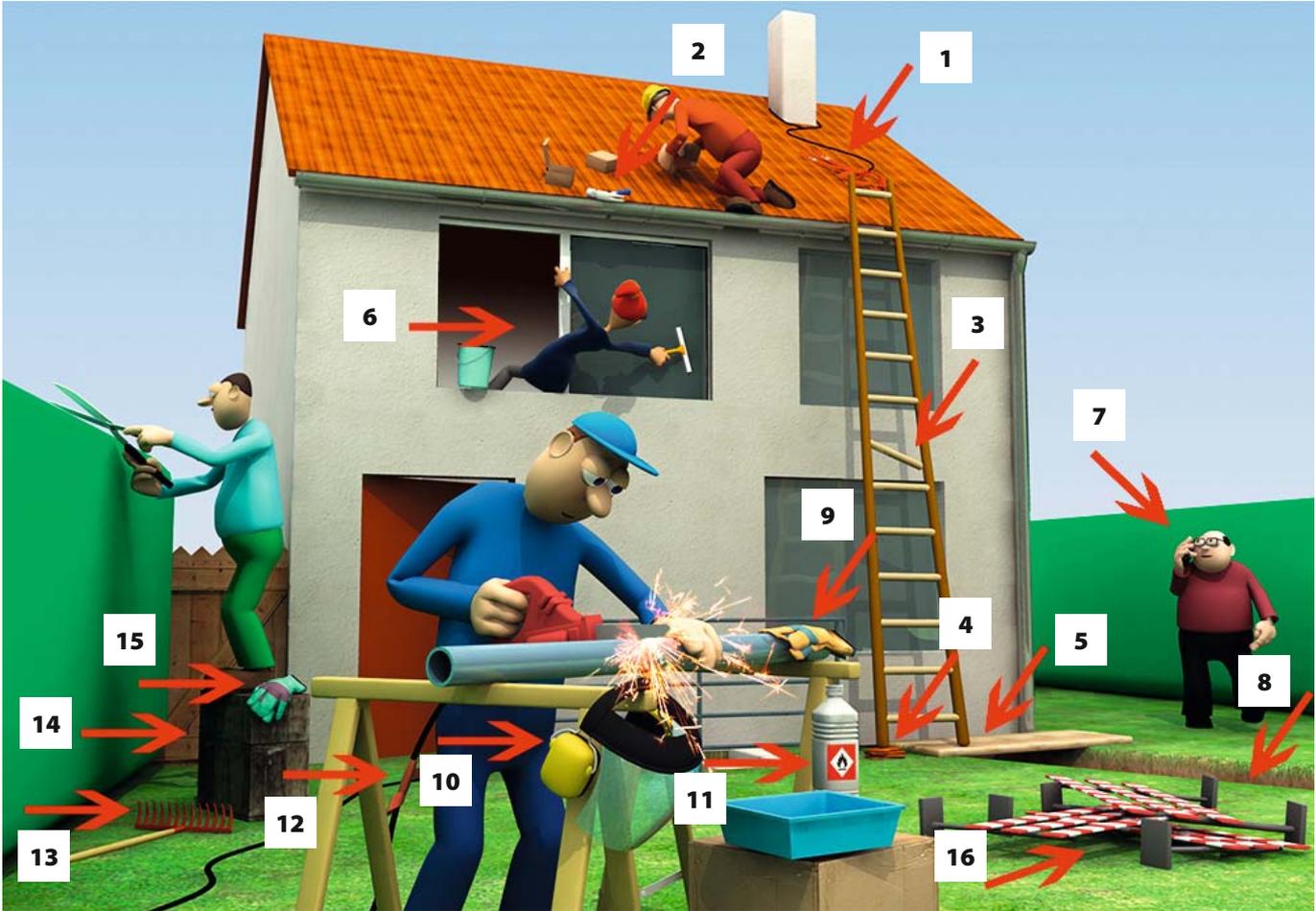
## Hazard Hunting/Spotting – Report Sheet (optional tool)

Name (pupil/ group) \_\_\_\_\_

| <b>Which risk?</b> Explain what is causing the danger? | <b>Where?</b> Explain where it is |
|--|-----------------------------------|
|  |                                   |



## Hazard House: SOLUTIONS



- 1) Worker on roof (not harnessed), harness tied to the chimney which is not a proper anchor point.
- 2) Tools balancing on roof – likely to fall.
- 3) Rung broken on ladder – risk of falling.
- 4) Ladder balanced on uneven surface – risk of falling.
- 5) Ladder propped across another uneven surface – risk of falling.
- 6) Napette (not harnessed) leaning out of window to clean it – risk of falling.
- 7) Boss on phone on construction site. His attention is diverted and he will not identify hazards as easily.
- 8) Ditch (trip hazard) not marked.
- 9) Napo not wearing the available protective gloves.
- 10) Napo not using the protective hearing equipment available.
- 11) Sparks near to flammable liquid – risk of fire.
- 12) Cable is a trip hazard (repaired with adhesive tape).
- 13) Trip hazard with the tool (rake) left on floor.
- 14) Balancing on wooden box instead of using a proper leader – risk of falling.
- 15) Not wearing the available protective gloves.
- 16) Trip hazard left in middle of lawn.



## HELP SHEET FOR TEACHERS

### Napo's Hazard Hunter: Lesson One – Identification of risks and hazards

#### **Napo in... Risky business**

Risky business is a short film about hazards and risks at work, and the need to assess risks and act on the findings to make workplaces safer and healthier. The film looks at hazards and some of the most common workplace risks, and the need to: 'Stop, Think and Act'.

The film seeks to explain the difference between hazards and risks, how these can be eliminated or reduced, and to demonstrate these through practical situations so that there is a greater understanding of the meaning of 'Risk'.

#### **Risk assessment**

Our aim is to make risk assessment and its importance in the prevention of accidents and ill health at work more clearly understood. Specifically we aim to:

- Explain the difference between hazard and risk
- Provide an introduction to risk assessment
- Illustrate, by example, what we mean
- Provide a bridge between the theory and the practice

#### **Why carry out a risk assessment?**

Risk assessment is the basis for successful safety and health management, and the key to reducing work-related accidents and occupational diseases. If it is implemented well, it can improve workplace safety and health – and business performance in general.

#### **What is risk assessment?**

Risk assessment is the process of evaluating risks to workers' safety and health from workplace hazards. It is a systematic examination of all aspects of work that considers:

- What could cause injury or harm
- Whether the hazards could be eliminated and, if not,
- What preventive or protective measures are, or should be, in place to control the risks

#### **Typical hazards in workplaces (many of them are present at home too) include:**

- Electricity
- Fire
- Tools, especially cutting tools such as blades or knives
- Machinery
- Slipping on the floor, falling from ladders or stairs, falling from height (e.g. from a scaffolding or from a roof)
- Transport (to vehicles, drivers or pedestrians)
- Musculoskeletal disorders (MSDs) due to handling heavy loads, twisting and turning, posture (e.g. work with VDU's), repetitive movements (e.g. on an assembly line)
- Chemicals – immediate damage due to inhalation, burns or irritated skin, and long-term effects such as cancer, respiratory diseases and allergies)



- Biological – bacteria, fungi or virus, e.g. hospital, laboratory of medical analysis, poor maintenance of the air conditioning plant
- Noise, vibrations, laser radiation, ionizing radiations, electromagnetic fields, UV rays, etc

There are a variety of episodes taken from different Napo films that can be used to present most of these risks. (table A)

### The five-step approach to risk assessment

This lesson focuses on the first two steps to risk assessment; identifying hazards and those at risk and evaluating and prioritising risks. The other three steps are presented in lesson 2 of Napo's Hazard Hunter.

*Step 3 – Deciding on preventive action, Step 4 – Taking action, Step 5 – Monitoring and reviewing are covered by the second Napo Hazard Hunter lesson entitled intervention and prevention.*

#### Step 1 – Identifying hazards and those at risk

Remember: a hazard can be anything – work materials, equipment, work methods or practices – that has the potential to cause harm.

Here are some tips to help identify the hazards that matter:

- Walk around and look at what could cause harm
- Ask those in the area about problems they have encountered
- Consider hazards such as noise or exposure to harmful substances, which have long-term effects, as well as the more obvious hazards like slips and trips

For each hazard it is important to be clear about who could be harmed. Identify groups of people, not individuals, such as 'stores', 'library' or 'passers-by'. Some groups might be at greater risk than others, for example people with a disability, young children or older people. (see episode 2 "Identify the unknown" in Napo in Risky business)

#### Step 2 – Evaluating and prioritising risks

Remember: a risk is the chance, high or low, that somebody may be harmed by the hazard.

The next step is evaluating the risk arising from each hazard. Consider:

- How likely it is that a hazard will cause harm
- How serious that harm is likely to be
- How often (and how many) workers are exposed

A straightforward process based on judgement and requiring no specialist skills or complicated techniques is sufficient for many workplace hazards or activities. These include activities with hazards of low concern, or workplaces where risks are well known or readily identified. Risks should then be prioritised and tackled in that order.

The top priority is risks that cause serious accidents (e.g. falls from height) and those that have a high probability to cause accidents (e.g. slippery or damaged floors). (see episode "Assess the risk" in Napo in Risky business)



**Table A**

| Risk                                | Film                                      | Scene  |
|-------------------------------------|---|--|
| <b>Road accidents</b>               |   |  |
| Hit by a vehicle                    | Napo in... Safe on site                   | 6. Keep them apart                             |
| Hurrying or a lack of concentration | Napo in... Clean sweep                    | 1. Change of plan                              |
| Being tired and in a hurry          | Napo in... Safe maintenance               | 5. In a rush                                   |
| High speed and hidden risks         | Napo in... Risky business                 | 5. Risky combination                           |
| <b>Fire</b>                         |   |  |
| Fire                                | Napo in Danger chemicals                  | 3. Flammable                                   |
| Fire                                | Best signs story                          | 2. Prohibition sign – No smoking               |
| Fire                                | Best signs story                          | 4. Rescue sign – emergency exit                |
| Fire                                | Best signs story                          | 5. Fire protection sign – fire extinguisher    |
| <b>Electricity</b>                  |   |  |
| Electricity                         | Napo in: Safety in... and outside of work | Sequence of Napo preparing the party lights    |
| <b>Machinery</b>                    |   |  |
| Machinery                           | The adventures of Napo                    | 5. The right protection at the right time      |
| Machinery                           | Napo in... Risky business                 | 1. Caution hazards                             |
| <b>Noise</b>                        |   |  |
| Exposure to noise                   | Stop that noise                           | Full film                                      |
| <b>Chemicals</b>                    |   |  |
| Chemical risks                      | Napo in... Danger chemicals               | Full film                                      |
| <b>Slips and falls</b>              |   |  |
| Risk of slipping                    | The adventures of Napo                    | 1. Why signposting is important                |
| Falling down stairs                 | The adventures of Napo                    | 2. Signposting is not sufficient               |
| Falling down stairs                 | Napo in: Safety in... and outside of work | Sequence of Napo on the stairs full of objects |
| Fall from height                    | Napo in... Safe on site                   | 2. Don't fall for it                           |
| Falling objects                     | Napo in... Safe on site                   | 1. Building in safety                          |
| <b>Manual handling</b>              |   |  |
| Heavy loads                         | Napo in... Safe on site                   | 5. Lightning strike                            |
| Heavy loads                         | Napo in... Lighten the load               | 3. Divide and rule                             |
| Heavy loads                         | Napo in... Lighten the load               | 10. Hold me tight                              |
| Heavy loads                         | Napo in... Lighten the load               | 6. The duel                                    |
| Bad posture                         | Napo in... Lighten the load               | 5. Radical ergonomics                          |
| Bad posture                         | Napo in... Lighten the load               | 8. Think and move                              |
| <b>Vibrations</b>                   |   |  |
| Vibrations                          | Napo in... Lighten the load               | 4. Bad vibrations                              |



*The second lesson of Napo's Hazard Hunter introduces the other side of Risk Assessment: Intervention and prevention.*

This teaching resource has been produced by EU-OSHA in consultation with the Napo Consortium – HSE (UK); DGVU (Germany); INAIL (Italy); INRS (France); SUVA (Switzerland); and AUVA (Austria).