

Activity P1

Being safe at work: what do the figures tell us?

Teacher and trainer notes

This activity introduces learners to Health and Safety Executive (HSE) statistics of workplace accidents in the manufacturing sector. The purpose is to draw attention to the scale of the problem in the learners' own industrial sector and to raise awareness that individuals need to take responsibility for safety.

You should point out that the national definition of "manufacturing sector" includes a wide range of industries, including engineering, shipbuilding and repair, motor vehicle repair, textiles, printing, wood working, paper, rubber, plastics, metals, foundries, ceramics, quarries, glass, concrete, cement, and waste recycling. Manufacturing employs around four million people.

The HSE reported 45 fatal injuries to workers in manufacturing in 2005/2006, an increase of 50% on 2003/2004, after numbers had fallen in each of the four years prior to 2004.

Learners often find statistics a 'boring' topic and difficult to understand. This interactive, hand-on task supports interpretation and understanding of statistics through visual images. The activity is planned for use with pairs or small groups to encourage discussion of ideas and reflection.

The activity can easily be adapted to fulfil some of the key skills application of number requirements. Many centres have also used the exercise as a spreadsheet and charting exercise as part of key skills information technology. You could also use the exercise to provide evidence for key skills communication by asking learners to produce and deliver a presentation.

Learning objectives

Learners should be able to:

- identify what causes most accidents in manufacturing industry
- analyse their findings and show them on a chart
- consider and explain what it all means for them and others.

Materials required

Each learner will need a copy of the *Being safe at work* learning resources.

Each group will need:

- squared paper and/or flip chart paper
- coloured pens
- rulers, protractor, compass and so forth, as necessary
- example session plan from CD ROM *Resources*.

Time needed

One hour.

Starting points

The activity is described in detail in the learner resources. You will need to plan how to integrate it within your normal teaching session and how to use it to supplement your own health and safety learning resources. One further point to consider is the type of chart that learners might produce to illustrate the statistics effectively. Alternatives are shown at the end of these notes.

This activity is particularly effective if separate groups are given responsibility for interpreting and feeding back on one type of accident (fatal, non-fatal, over three day absence). They can pool their results, explain their findings to each other and interpret the overall picture together.

If your learners have little experience of health and safety, you will need to set the scene and explore their level of understanding. You will find it helpful to give examples of common accidents and their causes in the learners' particular occupational area and to start off with a group activity that gets learners talking.

As you plan for group working, consider your objectives for the session. For example:

- if you are intending to use the session for a group induction or as an icebreaker you may decide to ask more confident learners to work alongside less confident learners. This encourages social interaction and learners learning from each other, and gives you an opportunity to observe how individuals function in a group. You can also use an ice-breaker activity to help pair off individual learners
- if you are intending to use the activity to support key skills numeracy, you will need to know each individual's initial assessment information and whether they are confident in working with data to create bar charts, pie charts or percentage component bar charts. You may need to group learners accordingly, particularly if you want to include some numeracy skills development in the session.

Suggested approach

You should look through the learning materials with your learners and negotiate clearly what they have to do. For group work to be effective, everyone needs to agree answers to the following questions.

- Who will work with whom?
- In each group, who will take on the roles of: creating the charts, reporting back, taking notes, chairing the discussion so that everyone has their say, checking that everyone understands, and agrees with, the conclusions?
- Which groups will interpret which type of accident (fatal, non-fatal, over three day absence)?
- Which types of chart or graph will fit the purpose best?
- What materials are needed?
- How will groups report back to the whole class?
- How long have they got for the task?

Consolidating and checking learning

Convene a plenary session to take feedback from groups.

Encourage learners to display their charts and to explain their findings to each other. Encourage other learners to ask questions and to add their own comments.

Your role should be to facilitate or chair the whole class discussion rather than to lead it. Encourage learners to add more in-depth explanation by asking open questions, to draw out and explore key learning points. For example:

- the impact of accidents on individuals, families and industry as a whole
- the direct and indirect impact of accidents, such as the direct effect on health and the ability to earn; the indirect impact, such as child care, social and transport difficulties.

What learners might do next

Explore the HSE website:

- to find out about incidence of work related illnesses or the main causes of time lost at work in the manufacturing sector:

www.hse.gov.uk/statistics/industry/manufacturing.htm

- to find out about the campaign by HSE to target safety improvements in the manufacturing industry because of rising accident rates:

www.hse.gov.uk/press/2004/e04151.htm

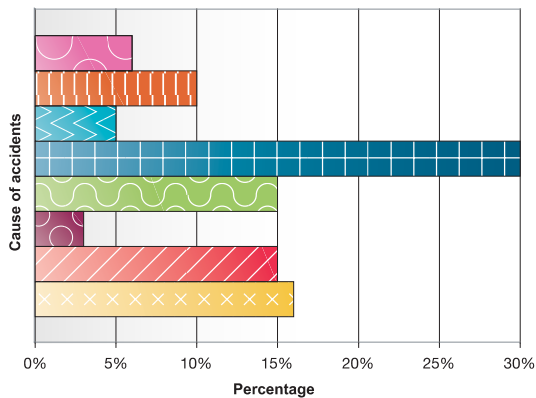
- to investigate HSE publications relating to engineering:

www.hse.gov.uk/pubns/engindex.htm

Accidents to employees reported in manufacturing industries

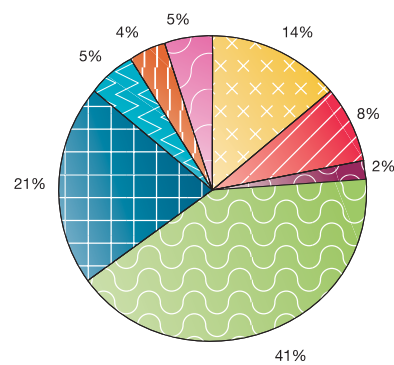
Horizontal bar chart

Non-fatal major accidents
HSE



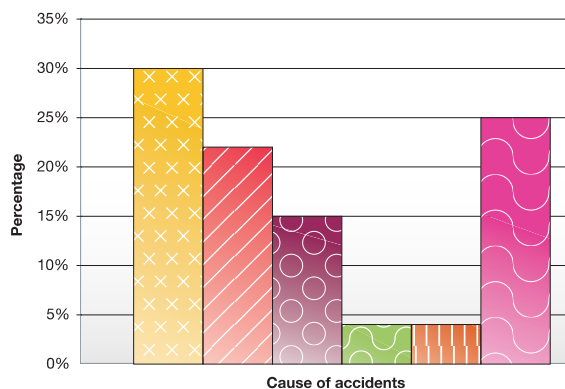
Pie chart

Accidents causing over three day absence
HSE



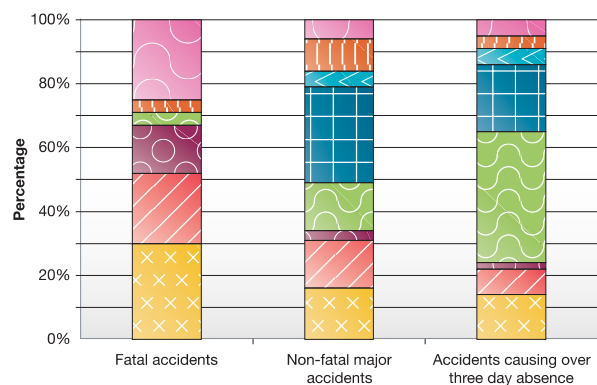
Vertical bar chart


Causes of fatal accidents
HSE





Percentage component bar chart


Causes of accidents
HSE





 People struck by moving, (including flying/falling) objects


 Contact with moving machinery


 Struck by moving vehicle

 Injured while handling, lifting or carrying

 Slips, trips or falls on the same level

 Strike against something fixed or stationary

 Falls from height

 Other, not classified