

**Science Example 2: Smoking**

60. This new 2015 exemplar unit explores various forms of evidence linked to the harmful effects of smoking and the methods used to help people to stop smoking. New Scientific Literacy items for 2015 will only be developed for computer-based delivery and therefore this exemplar is only shown in an onscreen format.

61. All onscreen standard question types in the PISA 2015 computer platform have a vertical split screen with the stimuli presented on the right hand side and the questions and answer mechanisms on the left hand side.


**Question 1: SMOKING**

62. This question requires students to interpret given evidence using their knowledge of scientific concepts. They need to read the information in the stimulus about early research into the potential harmful effects of smoking, and then select two options from the menu to answer the question.

**Figure 15. SMOKING: Question 1**

**PISA 2015** Unit Name: **SMOKING**

**Question 1/9**

 John and Rose are researching cigarette smoking for a school project.

Read John's research on the right.  
Then respond to the question below.

Select **two** reasons from the list below that suggest why cigarette companies could claim there was **no** evidence that tar from cigarette smoke caused cancer in humans.

- Humans are immune to tar
- Experiments were carried out with mice
- Chemicals from smoking decreased the effects of tar.
- Humans may react differently from mice
- Filter-tip cigarettes remove all tar from smoke

**John's Research**

In the 1950s research studies found that tar from cigarette smoke caused cancer in mice. Tobacco companies claimed there was no evidence that smoking caused cancer in humans. They also began to produce filter-tip cigarettes.

63. In this question, students have to apply content knowledge using the competency of explaining phenomena scientifically. The context is categorised as health and disease in a local/national setting. The cognitive demand requires the use and application of conceptual knowledge and is therefore categorised as a medium level of demand.