



# Safety Simon

# Lesson booklet

## Overview:

**Lesson 1:** Introduction to smoke alarms and explore circuits

**Lesson 2:** Locations of smoke detectors

**Lesson 3:** Brainstorm ideas of how to improve smoke alarms

**Lesson 4:** Design of smoke alarm

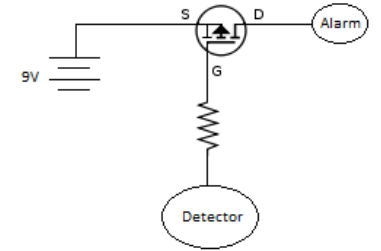
**Lesson 5:** Present your design to the class

**Lesson 6:** Presentation from fire department/ questions and answers

# Lesson 1: Activities

Click video to watch

Watch the video on different types of smoke detectors and answer the questions



1. List three different types of smoke detectors

---

---

---

---

2. What is the function to alert people?

---

---

3. Draw a circuit of one smoke detector at home (see attached paper to draw smoke detector)

4. List three places where you would install your smoke detector

A large empty rectangular box with a red border, intended for drawing a circuit of one smoke detector at home.

1.

2.

3.

## Lesson 2: Activities

Draw a picture of your house and location of the smoke detectors (see-attached paper for extra space)



Why are smoke detectors located here?

---

---

Where could you move them to be the ideal location for fires?

---

---



Do you have a safety plan when the smoke alarm goes off?

---

---

What would your safety plan be if you don't have one?

---

---

---

---

Research protocols (ideal locations) for smoke alarms from the websites below and list 3 top places to locate smoke alarms

Websites:

[Locations for smoke alarms](#)

[Safety information](#)

Locations:

- 1.
- 2.
- 3.

# Lesson 3: Activities

List three features on smoke detectors that could be improved

---

---

---

How could you make smoke detectors sustainable?

---

---

---

What would be the most effective design for people to install in their house?

---

---

---

Pick the best design out of these two images



Electrical



Battery

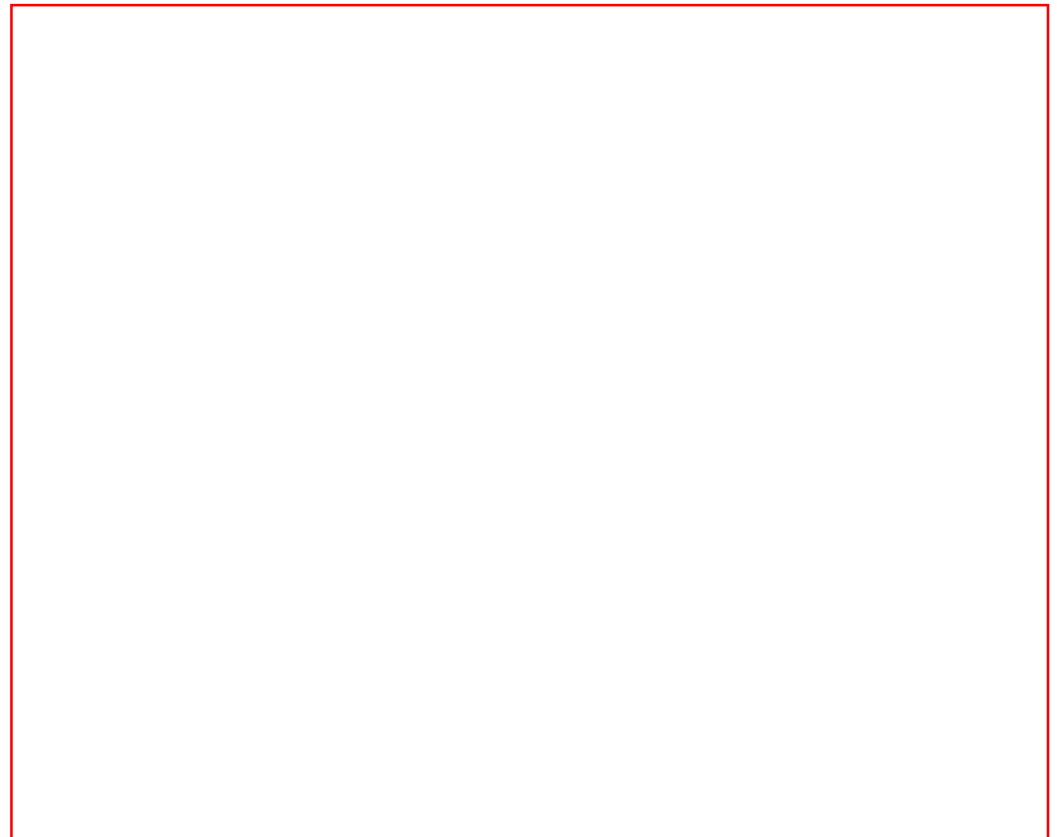
Why is this the better design?

---

---

---

Draw a circuit for the smoke detector



## Lesson 4:

*What does your smoke alarm need?*

---

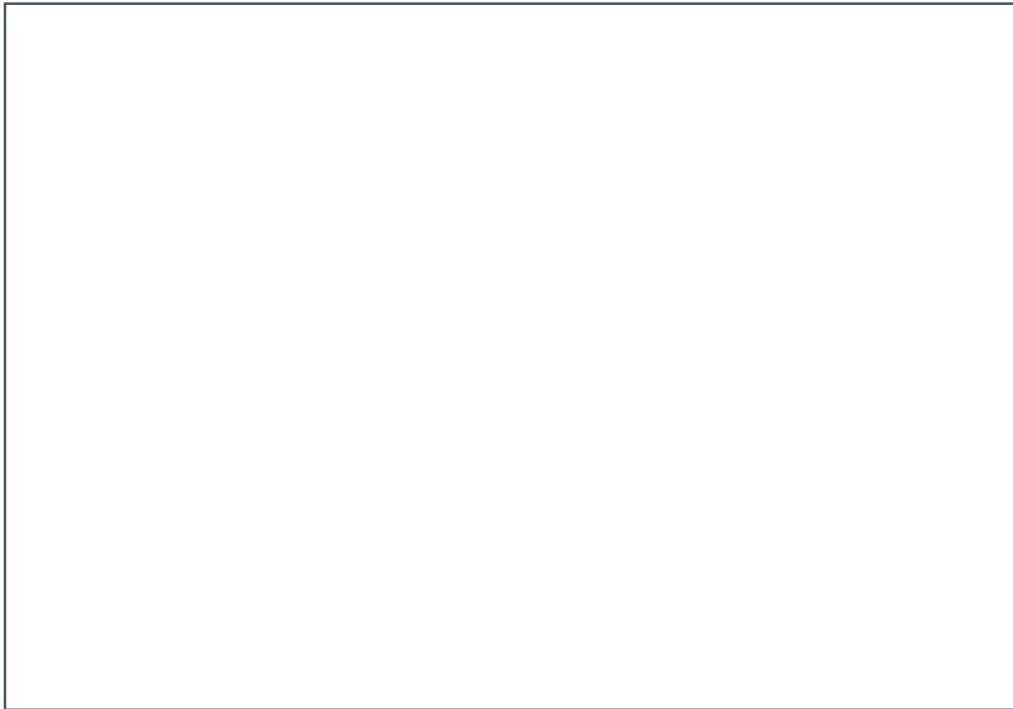
---

---

---

---

*What does it look like? Draw a picture*



*What is the circuit and its power source? Draw and explain*



---

---

---

---

## Lesson 5:

*Peer feedback on your design (See attachments)*

*How are you going present your design to the class? Circle one*

*PowerPoint*

*Poster*

*Video*

*Safety brochure*

---

*How would you change your design now?*

---

---

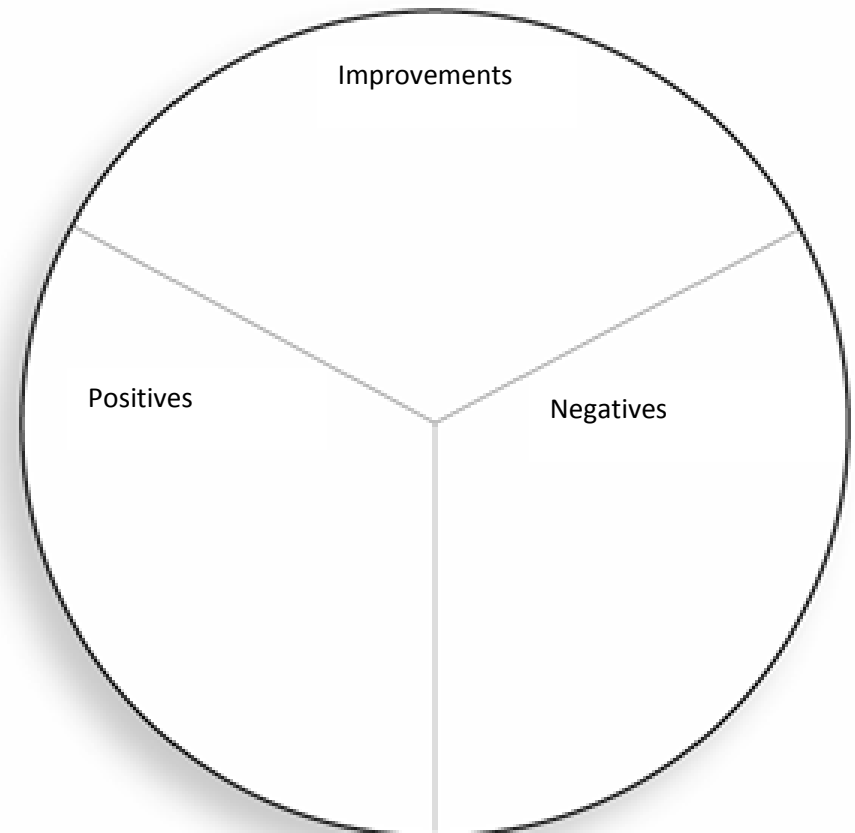
---

*What do you think works well in the design?*

---

---

---



## Lesson 6:

### *Fire Fighter Visit Review*

*Where should you have your smoke alarms in your house?*

---

---

*How often should you check and replace your smoke alarms?*

---

---

*List three key information you should have on your evacuation plan*

1.

2.

3.

*What is something new you have learnt?*

---

---

*What information did you extend on, after listening to fire fighter?*

---

---



## Lesson 6: Questions to ask

### *Fire Fighter Visit Review*

*Key Words: Smoke alarms, evacuation plans, location, job duties*

*Write your Questions below and your answers:*

Q1: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Q2: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Answer: \_\_\_\_\_  
\_\_\_\_\_

Q3: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Q4: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Safety Simone Rubric

Term:

Student Name:

Year 5 Technologies

Assessment criteria	<b>A</b>  <b>Outstanding</b> <b>45-50</b>	<b>B</b>  <b>Proficient</b> <b>35-45</b>	<b>C</b>  <b>Satisfactory</b> <b>25-35</b>	<b>D</b>  <b>Emergent</b> <b>15-24</b>	<b>E</b>  <b>Unsatisfactory</b> <b>Below 15</b>
Generate a range of design ideas  /10 marks	Identifies situations and places for smoke alarms with detailed explanation through extended research online	Identified and explained two needs for design through researching ideas online	Identified and stated one need for the design.	Identify one need but could not explain why they need this on the smoke alarm	With assistance was able to identify need for smoke alarm
Select design most appropriate for target audience  /10 marks	Selected design with detailed explanation including the positives features of the design and why it will be efficient	Selected design explaining why they have choose this design	Selected design idea with little explanation of why they have picked this idea	Design was selected with no explanation	With assistance a design idea was selected
Creates visual presentation of designs with technical language labels  / 20 marks	Created extremely clear and detailed drawings using correct technical names	Created detailed and clear drawings with all labels attached	Created detailed drawings with labels attached	Created drawings with no labels attached	With assistance visual representation was produced
Identify key features for smoke alarm and reflect on ideas  /10 marks	Identified and clearly explained the features of smoke alarm and clearly identified the improvements to design	Identified and explained the features of smoke alarm and identified how to make improvements to design	Identified features of smoke alarm and reflected on how to improve the design	Features of smoke alarm identified with no reflection on how to improve the design	With assistance features are identified and one sentence reflection

Attached paper:

Lesson 1- smoke detector



Lesson 2- Attached paper



Lesson 5: Peer Review

