

# How Light from a Bottle Can Change the World

**Background**

Millions of people around the world live in great <sup>1</sup>\_\_\_\_\_. Most of them live in small huts without windows or access to <sup>2</sup>\_\_\_\_\_, which makes it difficult for them to run small home businesses. Alfredo Moser, a Brazilian <sup>3</sup>\_\_\_\_\_, came up with a solution.

**Turning Point**

**Incident:**

In 2002, Alfredo was upset about Brazil's <sup>4</sup>\_\_\_\_\_. One day, he noticed the <sup>5</sup>\_\_\_\_\_ on a bottle of water making a reflection on the wall. It gave him an idea.

**Invention**

**How it works:**

- Step 1:** Pour <sup>6</sup>\_\_\_\_\_ and <sup>7</sup>\_\_\_\_\_ into a plastic bottle.
- Step 2:** Cut a hole in a roof, place the bottle inside it, and let the sun shine in.

The bleach can stop algae forming in the water. The light refraction lights up a room with the same brightness as a <sup>8</sup>\_\_\_\_\_.

**Through Darkness Comes Light**

Alfredo's invention can provide light locally and globally.

- |        |                     |
|--------|---------------------|
| Local  | (1) Alfredo's home  |
| ↓      | (2) His neighbors   |
| ↓      | (3) His hometown    |
| Global | (4) Other countries |

The project One Liter of Light's aim is to <sup>9</sup>\_\_\_\_\_ use Alfredo's bottle lamp.

**Conclusion**

**Life change**

The lives of millions of poor people have become much easier.

**Reflection on inventions:**

- (1) <sup>10</sup>\_\_\_\_\_ can make a difference to the world.
- (2) Great modern inventions are not necessarily dependent on <sup>11</sup>\_\_\_\_\_.

# Lesson 7 How Light from a Bottle Can Change the World

## 第一段

All over the world, millions of people suffer great **hardship**. Many live in small huts with metal roofs and no windows. These people can hardly **afford** to have **electrical** power, and it goes without saying that their homes are in darkness all day. Many people **operate** small businesses in their homes, such as **mending** clothes, making **furniture**, or fixing things. Working without light is difficult, so what can they do? Actually, an answer came from a Brazilian **mechanic** named Alfredo Moser.

## 第二段

In 2002, Alfredo was upset about Brazil’s frequent blackouts. One day, he noticed sun’s rays on a bottle of water making a reflection on the wall. It occurred to him that there was a way to bring light into his house. He used a **plastic** bottle filled with water and a little bleach. The bleach kept the bottle clean by stopping algae from growing in the water. Alfredo placed the bottle into a hole he made in his roof. As he expected, the bottle refracted sunlight from outside. It filled his room with the same amount of light that a 50-watt **bulb** makes.

## 第三段

After Alfredo lit up his own home, he made bottle lamps for his neighbors. They were eager to have more light in their homes as well. Soon, people far from his hometown were soon talking about his **invention**. Bottle lamps even caught on in other countries. For example, in Philippines, an organization called the MyShelter Foundation helps poor people use green **technology**. It uses the bottle lamps in its “One Liter of Light” **project** to help people without electricity. The lamps are also changing lives in India, Indonesia, and other places. Some people grow food by using light from the bottle lamps. Other people earn a little money by installing and repairing those lamps.

## 第四段

A bottle lamp is a simple device. It costs almost nothing to make and **install**. Yet it is making life a little easier for millions of people caught in the poverty trap. It is also a great example of how a useful idea can grow. People living in poor or **remote** areas see their neighbors using a bottle lamp and realize they can get one very easily. Alfredo Moser has shown us how to change the world with a simple idea. He has also proved that not every great modern invention is **dependent** on high-tech design skills.



# Q&A

## Paragraph 1

1. According to the passage, what is the great hardship that millions of people suffer? ★★
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2. What is the result when people are unable to afford to light their homes? ★
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3. Who came up with the solution to lighting people’s homes? ★
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## Paragraph 2

4. What upset Alfredo and inspired him to make a “lamp”? ★
- 
5. Why is Alfredo’s “lamp” filled with water and a little bleach. ★★
- 
6. How bright is the Alfredo’s lamp? ★
- 

## Paragraph 3

7. What is the order of the spread of Alfredo’s invention? ★★
- ✱

→

→
8. What is the job of the MyShelter Foundation? ★
- 
9. How does Alfredo’s lamp help the world? ★★★★
- 
10. Besides lighting the room, what other uses of a bottle lamp are mentioned in the paragraph? ★★
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## Paragraph 4

11. How much does it cost to install a Moser lamp? ★
- 
12. According to the passage, what are the two inspirations from Alfredo Moser’s story? ★★
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