

Materials

Metal



the 1990s, the number of people in the world who are poor has increased.

There are two reasons for this. First, the world population has increased. Second, the income gap between rich and poor countries has widened. The rich countries have grown richer, but the poor countries have not grown as rich. In fact, some of the poorest countries in the world are getting poorer.

There are many reasons for this. One reason is that the rich countries have a higher standard of living. They have more money to spend on things like health care, education, and infrastructure. This helps them to grow richer. The poor countries, on the other hand, do not have as much money to spend on these things. This makes it harder for them to grow richer.

Another reason is that the rich countries have a higher level of technology. They have more advanced machinery and equipment. This helps them to produce more goods and services. The poor countries, on the other hand, have a lower level of technology. This makes it harder for them to produce as much as the rich countries.

There are also some structural reasons for this. The rich countries have a higher level of education. They have more people who are trained in science, technology, and business. This helps them to create new products and services. The poor countries, on the other hand, have a lower level of education. This makes it harder for them to create new products and services.

There are also some policy reasons for this. The rich countries have more favorable trade policies. They have lower tariffs and more trade agreements. This helps them to export their goods and services. The poor countries, on the other hand, have more restrictive trade policies. This makes it harder for them to export their goods and services.

There are also some geographical reasons for this. The rich countries are located in more favorable geographical locations. They have access to more trade routes and markets. The poor countries, on the other hand, are located in less favorable geographical locations. This makes it harder for them to trade with other countries.

There are also some cultural reasons for this. The rich countries have a culture that values hard work and innovation. This helps them to grow richer. The poor countries, on the other hand, have a culture that values tradition and stability. This makes it harder for them to grow richer.

There are also some historical reasons for this. The rich countries have a longer history of industrialization. They have been able to take advantage of the opportunities that industrialization has provided. The poor countries, on the other hand, have not been able to take advantage of these opportunities as much.

There are also some political reasons for this. The rich countries have more stable governments. They have more effective institutions and a better legal system. This helps them to attract investment and grow richer. The poor countries, on the other hand, have less stable governments. This makes it harder for them to attract investment and grow richer.

There are also some environmental reasons for this. The rich countries have a higher level of environmental protection. They have more money to spend on things like clean air and water. This helps them to attract investment and grow richer. The poor countries, on the other hand, do not have as much money to spend on these things. This makes it harder for them to attract investment and grow richer.

There are also some demographic reasons for this. The rich countries have a higher level of human capital. They have more people who are educated and skilled. This helps them to create new products and services. The poor countries, on the other hand, have a lower level of human capital. This makes it harder for them to create new products and services.

There are also some institutional reasons for this. The rich countries have more effective institutions. They have better laws and regulations. This helps them to attract investment and grow richer. The poor countries, on the other hand, have less effective institutions. This makes it harder for them to attract investment and grow richer.

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Cassie Mayer

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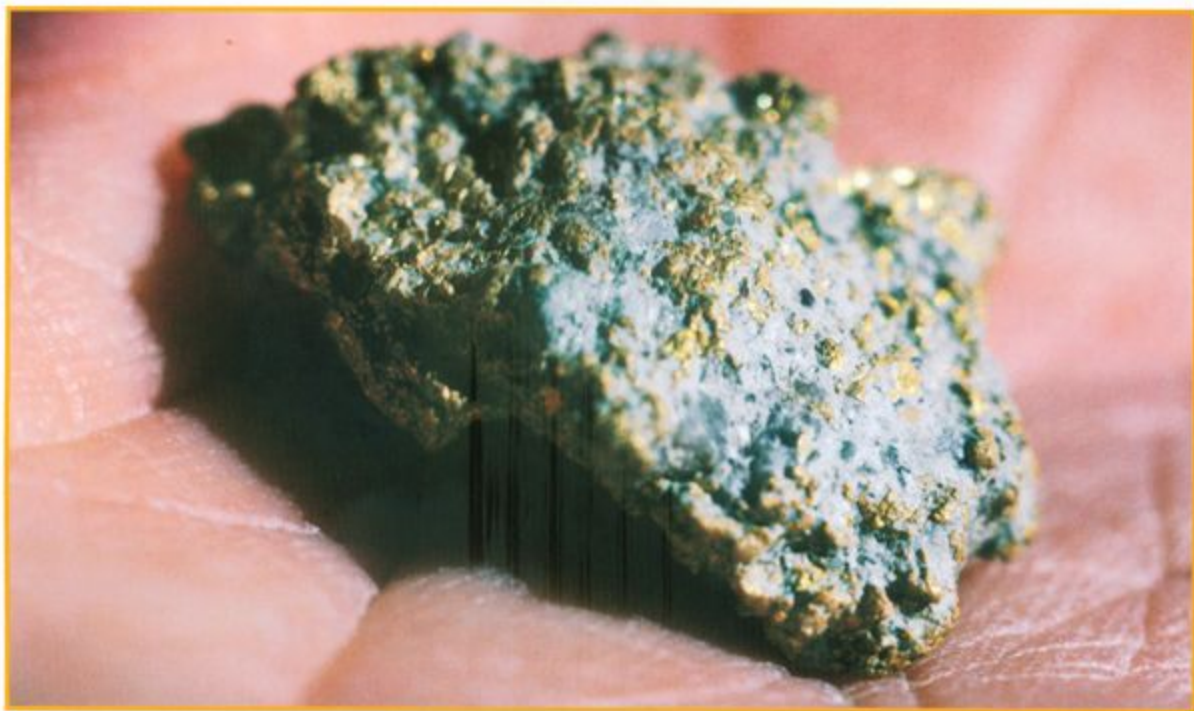
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# What is metal?



Metal is a material.

It is found in the world around us.

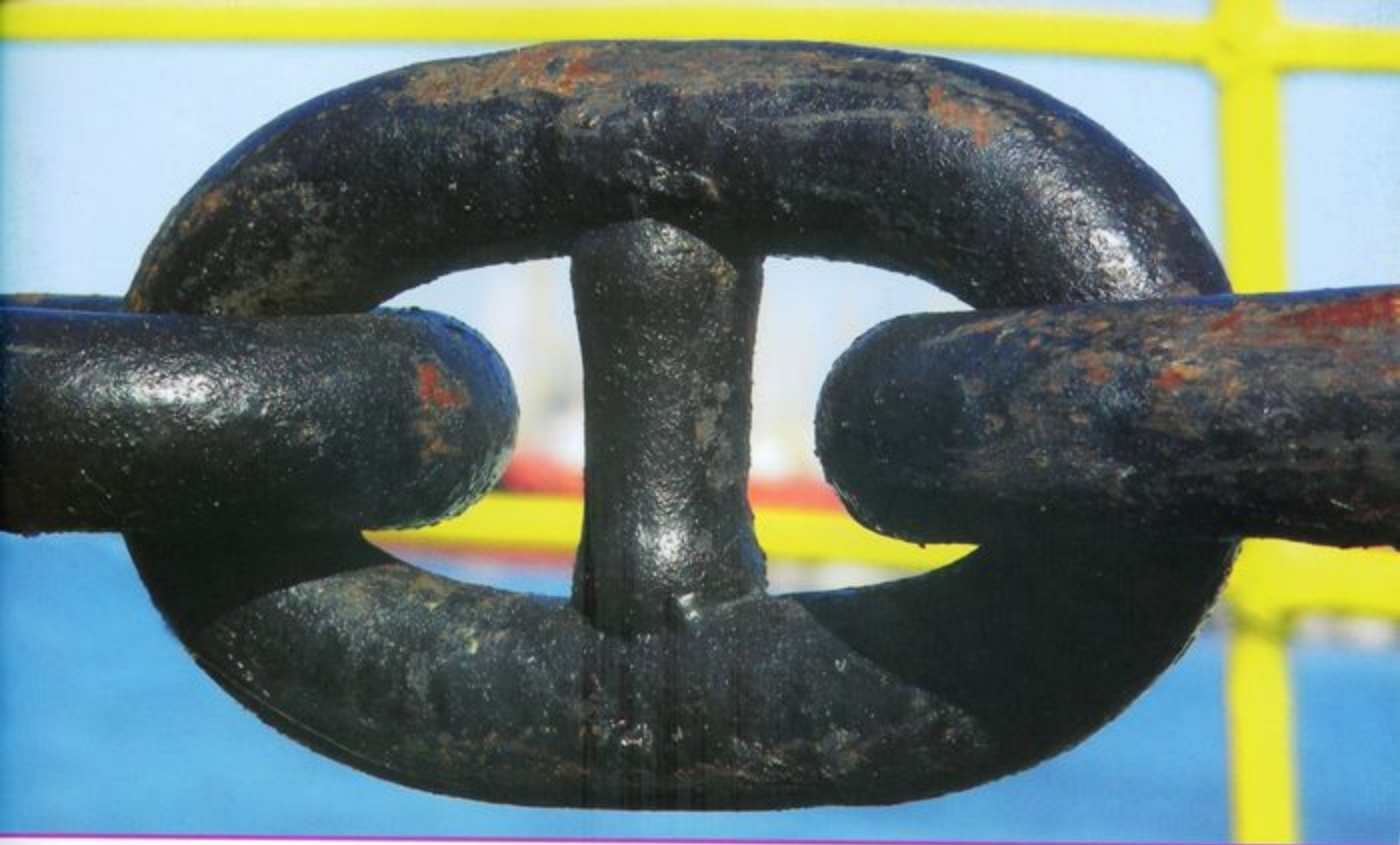


Metal is in rocks.



Metal can be strong.



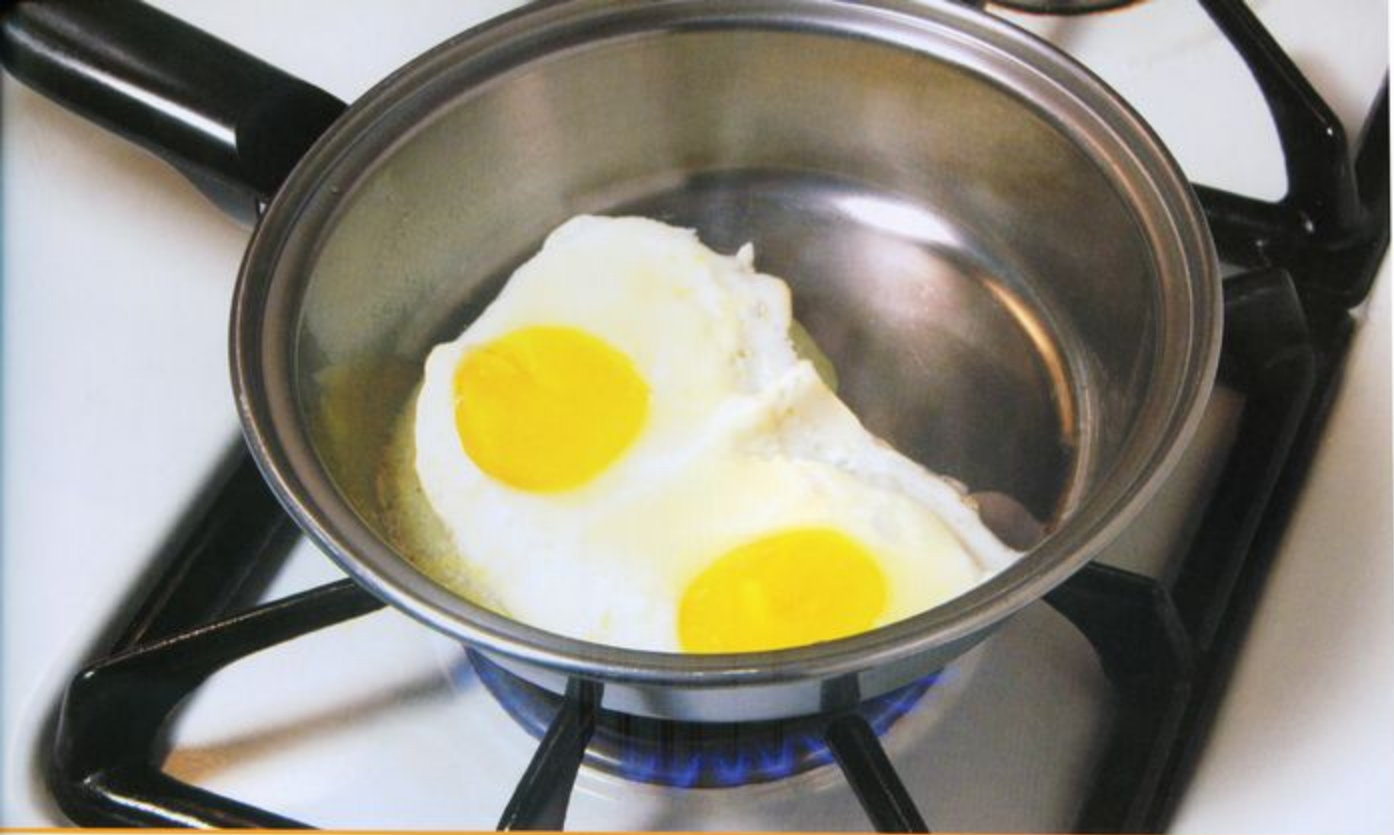


Metal can be stiff.

# What can metal do?



Metal can be made cold.



Metal can be made hot.

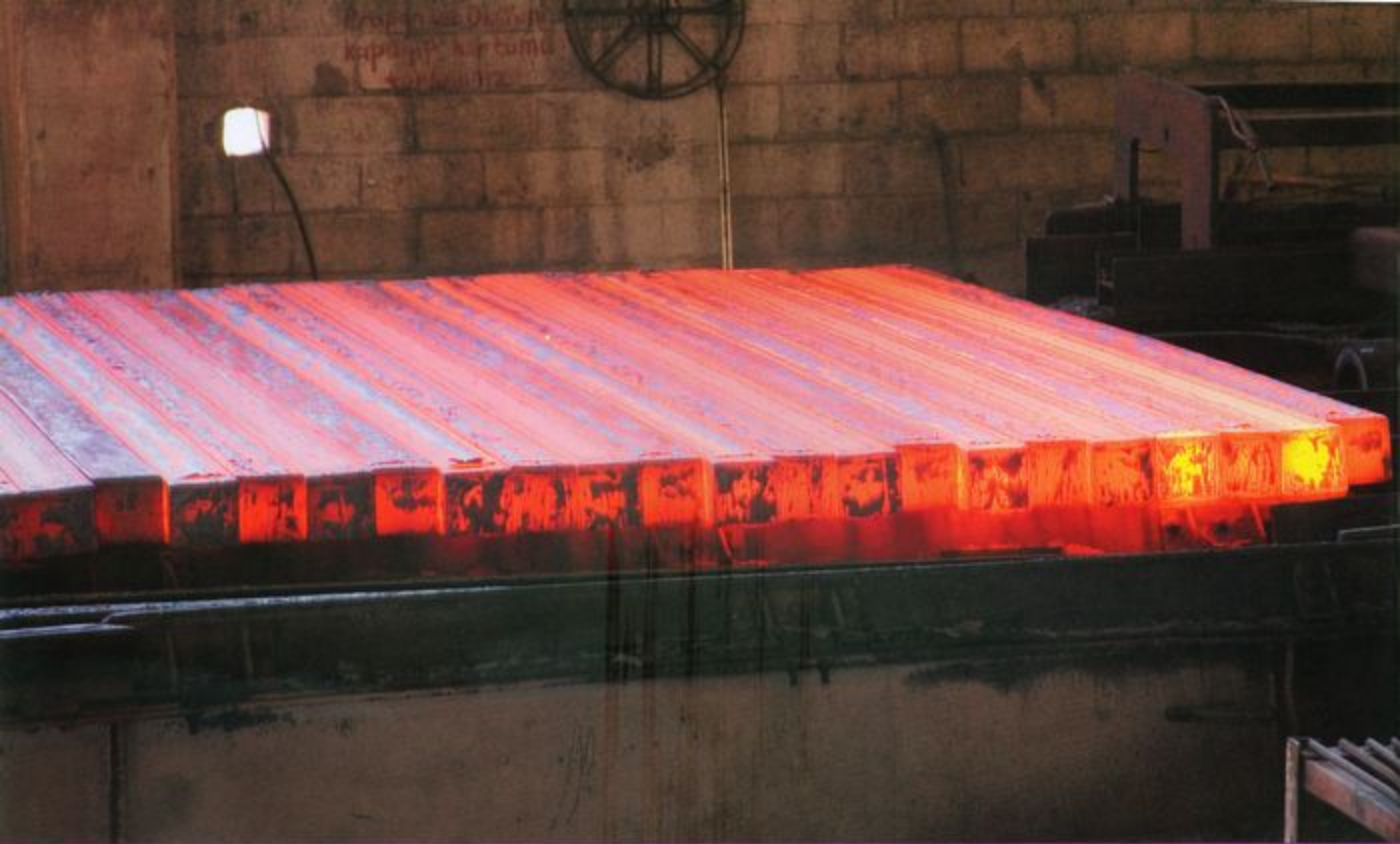
# What happens when metal is heated?



Metal can be heated.



Metal melts when it is very hot.



When metal is heated, it can be made into a new shape.



After it is heated, metal can cool down again.

# Recycling metal



Metal can be recycled.





It can be used to make new metal things.



Metal can be used to make cars.



Metal can be used to make cans.

# How do people use metal?



Metal can be used to build.



Metal can be used to make pots and pans.

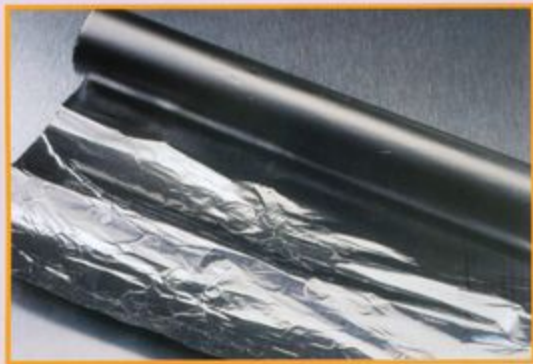


Lots of food comes in metal cans.



Metal can be used to make lots of things.

# Things made of metal



◀ tin foil



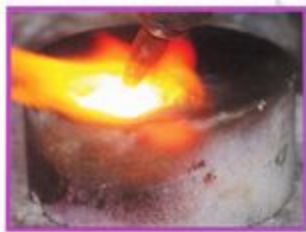
▲ ice cube trays



▲ pots and pans



# Picture glossary



**melt** change from a solid into a liquid. Metal is a material that melts when it is heated.



**recycle** take old things to make them into new things

## Content vocabulary for teachers

**natural material** material from plants, animals, or within the earth that can be used by people

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## Notes for parents and teachers

**Before reading** Put items made of materials such as wood, plastic, metal, and rubber in a closed bag. Challenge the children to feel in the bag and, without looking, identify the object made of metal. What did it feel like? Was it cold to touch? Was it heavy? Talk about the properties of metal.

### After reading

- Show the children some lengths of metal and wood. Then put both in a fridge. Ask the children to predict how the materials will feel after they have been in the fridge for one hour. After an hour, take out the metal and the wood and encourage the children to talk about how they feel. Then put the metal and the wood on a window sill in the sun. After a while pass around the wood and the metal. Talk about which is warmer.
- Scatter some paperclips on to a piece of card. Move a magnet around under the card and watch the paperclips move. Talk about how some metal is magnetic.



# Metal



Where does metal  
come from?

Read this book to learn all about metal.

#### Literacy consultants

Diana Bentley and Dee Reid both have MAs in Children's Literature. Their work combines lecturing, writing for teachers, and working with children in primary classrooms.

#### Subject consultant

Sally Blake is the faculty research director of a school and research institute for Early Childhood Education. These books were evaluated by the Early Childhood teachers in Montessori and Reggio programmes.

Books in this series introduce children to the exciting world of materials. Each book uses simple, repetitive text to teach basic vocabulary and includes stunning photographs that illustrate the properties of each material.

In *Metal*, readers learn where metal comes from, what happens when it is heated, and how it is used. Different objects made of metal are discussed, and readers learn that metal can be recycled.

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Metal	Rubber	Wood
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