



TELEVISION MINERALS

Televisions are extremely useful for getting up to date news, learning about different people or places and for entertainment like playing video games, watching movies, cartoons, or your favorite show. Televisions have mineral components that can only come from mining.

Think About It:

Have you ever wondered how a television is made? What are the materials needed to make a TV? Where do these materials come from and how do we get them? Answer the questions below using only your background knowledge.



From where do you think the materials used in a TV come?

Do you think any of the materials needed to make a TV come from rocks or minerals? Explain why or why not.

A television contains copper, quartz, aluminum, gold and silver in its parts. List any other uses you know for these mineral resources.

Directions for Activity:

The table on the back of this worksheet lists the mineral resources needed to make a TV, the percentage the mineral resources are imported into the US and major sources. Answer the questions on the back of this sheet using the table.



Fun TV Facts 2012:



The largest plasma television in the world is a 103-inch TV made by Panasonic and priced at \$70,000!



The average American watches 4 hours of TV a day.



The first TV commercial ran during a Brooklyn Dodgers and Philadelphia Phillies baseball game in 1941. The commercial was for Bulova Watches.

TV Mineral Resource Imports into the United States 2012

Mineral Resource	Percent	Major Import Sources
ALUMINUM	13	Canada, Russia, China, Mexico
ANTIMONY	87	China, Mexico, Belgium
BARITE	78	China, India
BERYLLIUM	21	Russia, Kazakhstan, Japan,
COBALT	75	China, Norway, Russia, Canada
COPPER	35	Chile, Canada, Peru, Mexico
GALLIUM	99	Germany, Canada, United Kingdom, China
GERMANIUM	90	China, Belgium, Russia, Germany
GOLD	36	Mexico, Canada, Colombia, Peru
INDIUM	100	China, Canada, Japan, Belgium
IRON and STEEL	9	Canada, European Union, China, Mexico
LIME	1	Canada, Mexico
MANGANESE	100	South Africa, Gabon, China, Australia
MICA, sheet	100	China, Brazil, Belgium, India
NIOBIUM (columbium)	100	Brazil, Canada, Germany, Russia
PALLADIUM	56	Russia, South Africa, United Kingdom,
PLATINUM	88	Germany, South Africa, United Kingdom,
POTASH	83	Canada, Belarus, Russia
QUARTZ CRYSTAL (industrial)	100	China, Japan, Russia
RARE EARTHS	100	China, France, Estonia, Japan
RHENIUM	87	Chile, Netherlands, Germany
SALT	22	Canada, Chile, Mexico, The Bahamas
SILICON (ferrosilicon)	42	China, Russia, Venezuela, Canada
STRONTIUM	100	Mexico, Germany
TANTALUM	100	China, Germany, Kazakhstan, Australia
TIN	76	Peru, Bolivia, Indonesia, China
TITANIUM MINERAL CONCENTRATES	68	South Africa, Australia, Canada, Mozambique
TUNGSTEN	36	China, Bolivia, Canada, Germany
VANADIUM	80	Rep. of Korea, Canada, Austria, Czech
YTTRIUM	100	China, Japan, France, United Kingdom
ZINC	73	Canada, Peru, Mexico, Ireland

Source: USGS Mineral Commodity Summaries 2012

1. Could the United States make televisions without using any mineral resources from other countries? Explain your answer.

2. How many countries can it take to get all the mineral resources needed to make televisions?

3. Copper is important for electricity conduction in televisions. If you were a copper miner, what countries could you live in? _____

4. There are over 30 mineral resources needed to manufacture a TV. Do you know some other uses for any of the mineral resources listed above? Explain. _____

Extension Activity:

Use the internet to research how the minerals in a TV's LCD screen are mined. The minerals needed to make LCD screens are Galena, Quartz, Pyromorphite, Cerussite, Anglesite, Hematite, Cassiterite, and Sphalerite.

