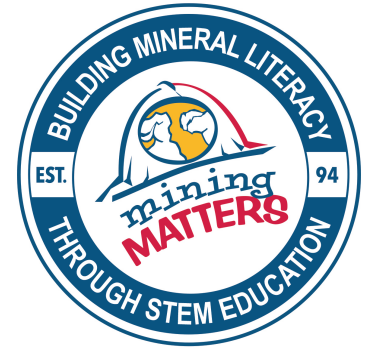


Mining Crushed Stone, Sand, and Gravel



What to Do

Crushed stone, sand, and gravel are also called “aggregates.” They are called aggregates because they are often mixed with other things, like cement to make concrete and tar to make asphalt. There are hundreds of different uses for crushed stone, sand, and gravel in our daily lives.

- 1** Discover a few of the many uses for crushed stone, sand, and gravel in the **Uses of Crushed Stone, Sand, and Gravel Bingo** game. Create your own bingo cards by filling in the provided card with the uses in a random order.
- 2** Play Bingo with your family, or with friends online.
- 3** Play the **Crushed Stone, Sand and Gravel Matching Game** by first cutting out the cards. Next, mix them up and find the matches. Each group of three cards includes a **Crushed Stone, Sand, and Gravel Activity** card, **A Concern** card, and **A Possible Solution** card.
- 4** Paste your **Crushed Stone, Sand, and Gravel Matching Game** card in the correct box. Use words and pictures to illustrate the cards.

Stone, sand, and gravel can also be called aggregates.

Our drinking water is filtered and purified through stone, sand, and gravel.

An average school building requires 13,000 tonnes (almost 650 truckloads) of crushed stone, sand, and gravel.

Uses of Crushed Stone, Sand, and Gravel Bingo

Asphalt						Vinyl
Concrete blocks						Plastic
Fish habitat			Free Space			Toothpaste
Concrete paths						Sewage treatment
Window glass						Water filtering
Golf sand traps	Field drainage channels	Fibreglass	Porcelain toilet and sinks	Mortar	Sports field base	Medicines
Fertilizer	Shingles	Paint	Bricks	Play ground safety sand	Goal post stands	Food

Crushed Stone, Sand, and Gravel Matching Game

<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Trucks transporting crushed stone, sand, and gravel can cause a lot of dust.</p>	<p>A Concern</p> <p>Large amounts of dust in the air can cause breathing problems for some people.</p>	<p>A Possible Solution</p> <p>Truck wheels are often sprayed with water when they leave the mine site, and dust enclosures are used on processing equipment to reduce dust.</p>
<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Companies have many needs for water, like washing the crushed stone, sand, and gravel, and wetting roads to reduce dust.</p>	<p>A Concern</p> <p>Companies might take water from lakes and rivers or from the supply for local communities.</p>	<p>A Possible Solution</p> <p>Companies reuse and recycle all their water.</p>
<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Working trucks and mining machinery can be noisy.</p>	<p>A Concern</p> <p>People living close to a mining operation might get annoyed by the noise. The noise might scare away wildlife.</p>	<p>A Possible Solution</p> <p>Equipment that contains noise-reducing materials, like rubber, helps cut down noise.</p>
<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Crushed stone, sand, and gravel are transported by truck to where they are needed.</p>	<p>A Concern</p> <p>The transportation is expensive and may damage roads.</p>	<p>A Possible Solution</p> <p>Crushed stone, sand, and gravel mines are usually located close to where their product is needed.</p>

<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Explosives are used to blast (break up) the rock.</p>	<p>A Concern</p> <p>Blasting can cause vibrations which could damage nearby homes and scare away wildlife.</p>	<p>A Possible Solution</p> <p>Trained blasters ensure that the noise and vibration of the blast is within acceptable levels.</p>
<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Extracting the valuable resources from the Earth will alter the land.</p>	<p>A Concern</p> <p>Surface mining changes the appearance of the land and can cause a loss of habitat to wildlife.</p>	<p>A Possible Solution</p> <p>Companies rehabilitate mine areas creating naturalized landscapes, housing developments, parks, conservation and recreation areas, agricultural areas, and fish habitats.</p>
<p>Crushed Stone, Sand, and Gravel Activity</p> <p>During surface mining, the top soil is removed.</p>	<p>A Concern</p> <p>The topsoil is needed for plant growth and can cause a loss of habitat to wildlife.</p>	<p>A Possible Solution</p> <p>Companies store the top soil until rehabilitation, and then replace it on the land.</p>
<p>Crushed Stone, Sand, and Gravel Activity</p> <p>Some surface mines are dug below the water table.</p>	<p>A Concern</p> <p>Local residents fear that the mining operation may lower the groundwater level and affect their water supply.</p>	<p>A Possible Solution</p> <p>Most surface mines are located above the water table. Deeper mines are designed to prevent changes to the water table.</p>

Mining Crushed Stone, Sand and Gravel

Paste your **Crushed Stone, Sand and Gravel Matching Game** Card in the correct box.
Use words and pictures to illustrate the cards.

Crushed Stone, Sand, and Gravel Activity	A Concern	A Possible Solution