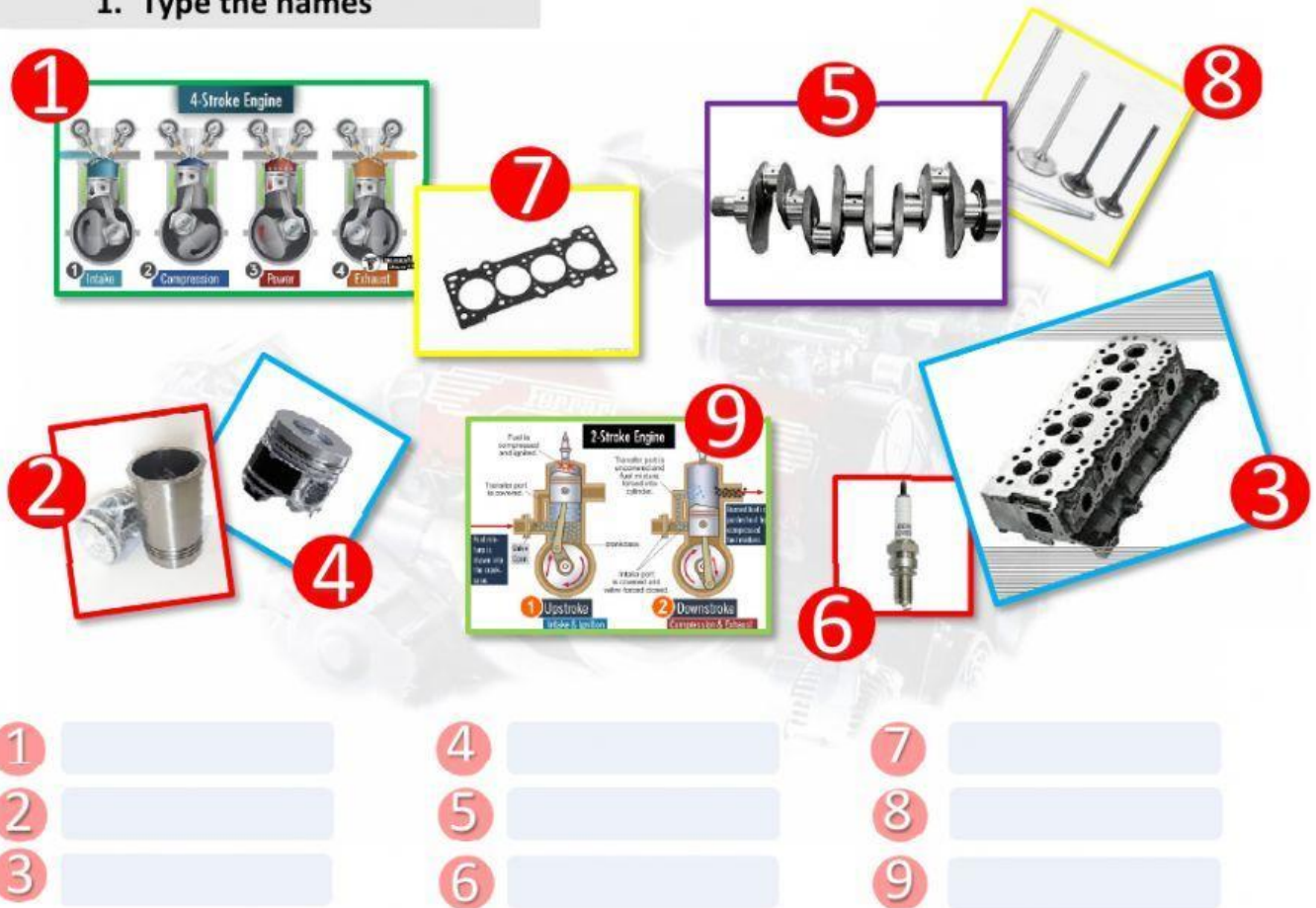




NAME: _____ GROUP: _____ DATE: _____

Two-Stroke, Four-Stroke Engines

1. Type the names



1		4		7	
2		5		8	
3		6		9	

2. Read then say the sentences

Read the text about two-stroke engines then record your voice. Click on the microphone icon and say the sentences in gray color.

Look around your house and chances are you'll find two-stroke engines. They are in lawn mowers, chain saws, leaf blowers, and many other small machines. Many owners, however, don't really understand how they work. They know they need to mix two-stroke oil with fuel in the correct fuel-to-oil ratio. But that's about it.

For such powerful little engines, they are actually quite simple. In the first part of the cycle, the piston goes down, creating a vacuum that sucks in the fuel, air, and oil mixture through the inlet. Then the piston goes up, compressing the mixture. Next, the spark plug fires, igniting the fuel mixture. The resulting explosion pushes the piston back down and forces exhaust out of the combustion chamber. In the down position, the piston has completed its cycle, which is equal to one revolution of the crankshaft.



Two-stroke cycle

Resulting action

Pistón goes down →

A vacuum that sucks in the mixture

Pistón goes up →

Compression of the mixture

Spark plug fires →

Ignition of the fuel mixture

3. Read and fill the blanks

Read the encyclopedia entry. Then, fill in the blanks with the correct words from the word bank.

Compression **exhaust**
ignites **intake**
cylinder **release**

The four-stroke engine works by heating fuel and air in a _____. During the first stroke, the _____ valve lets fuel and air into the cylinder. Then the valve closes during the _____ stroke. A piston moves up to condense the air and fuel. Then the mixture _____ during the power stroke. The final stroke _____ gas. This is the 6 _____ stroke.

4. Find the mistakes and rewrite

Read and rewrite the sentences to make them true

- 1 Ignite is the process of compressing fuel and air
- 2 Exhaust valve a force caused by pushing against something
- 3 Pressure is an opening where spent fuel is released
- 4 Exhaust stroke is to make something burn or catch fire
- 5 Compression stroke is the process of releasing spent fuel

Scholar's Encyclopedia: F-H 634

Four-Stroke Engine

A **four-stroke engine** is a common engine that cycles through four stages. The process works by heating a mixture of fuel and air in a cylinder.

In the first stage, or **intake stroke**, fuel and air enter the cylinder through the **intake valve**. The piston inside the cylinder moves down to make room for the mixture.

Then the valve is closed and the piston moves up again. This is the next stage, or **compression stroke**. The upward-moving piston compresses the fuel and air. The **head gasket** and valves on the **cylinder head** contain the combustion **pressure** during this stage.

The cycle then enters the **power stroke**. In this stage, heat or a spark **ignites** the mixture. The result is a massive force that pushes the piston down again. This force is what powers the engine.

When the fuel is spent, the **exhaust valve** opens to release the remaining gases. This is called the **exhaust stroke**.

