

**Презентация к уроку по теме  
«Двигатель внутреннего сгорания»  
для студентов 2 курса специальности  
«Автомеханик»**

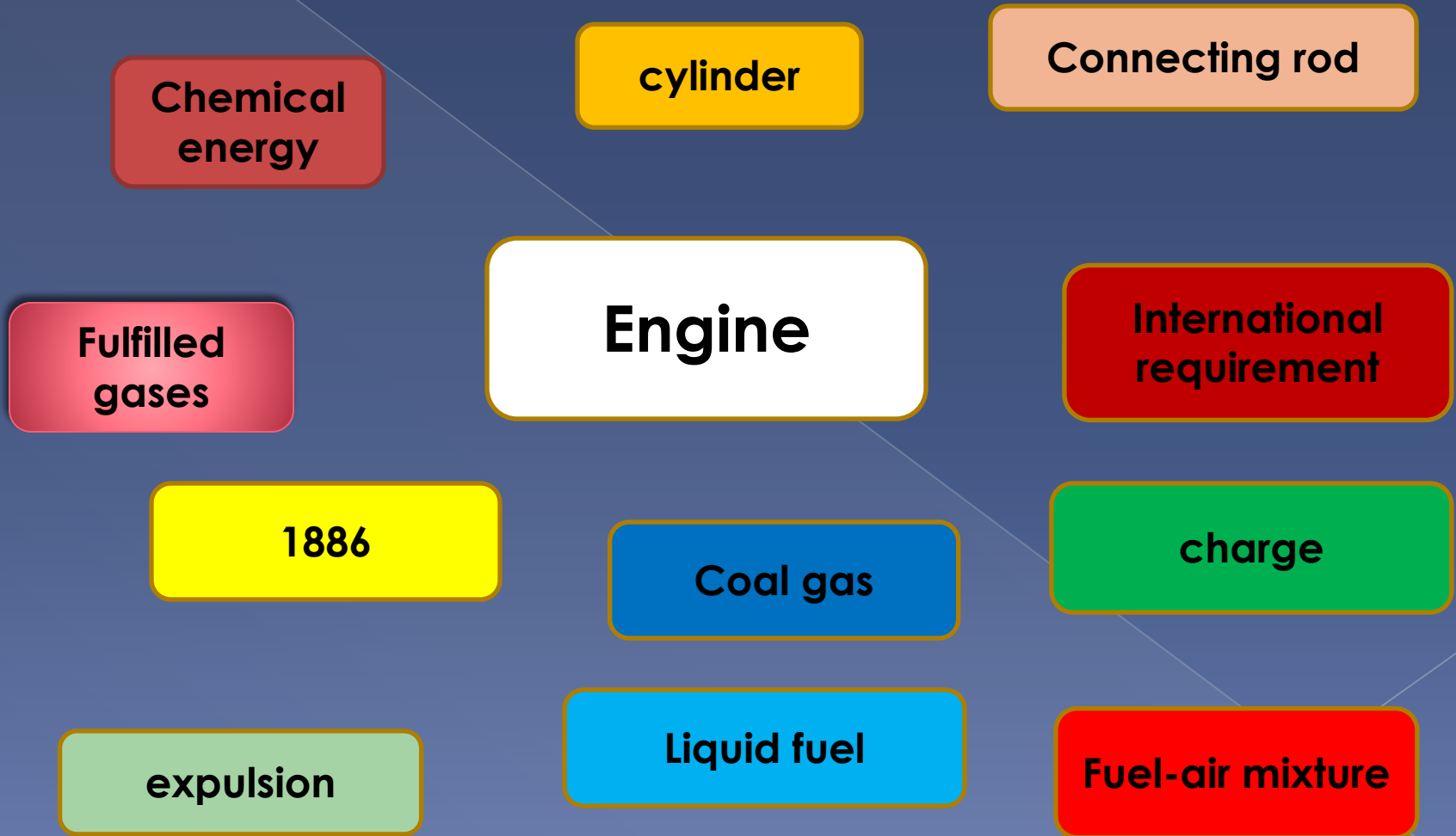
**Выполнено преподавателем английского языка  
ГБПОУ РО «НАТТ» Калужиной М.В.**

# *Internal combustion engine-* Двигатель внутреннего сгорания (ICE – ДВС).

*The engine is the  
power plant of the  
vehicle - Двигатель -  
это сердце  
транспортного  
средства.*



# “Cluster”



# The main units of lesson

- ⦿ Engine.
- ⦿ Classification of engines.
- ⦿ Requirements shown to engines.
- ⦿ The history of engine creation
- ⦿ Working cycle of engine
- ⦿ The main components of cylinder.

# What is the engine?

Engine is ...

- a) *...mechanism converting the electric energy into the mechanical work.*
- b) *...mechanism converting the thermal energy into mechanical work.*
- c) *...converting chemical energy of fuel into mechanical work.*

## **New words:**

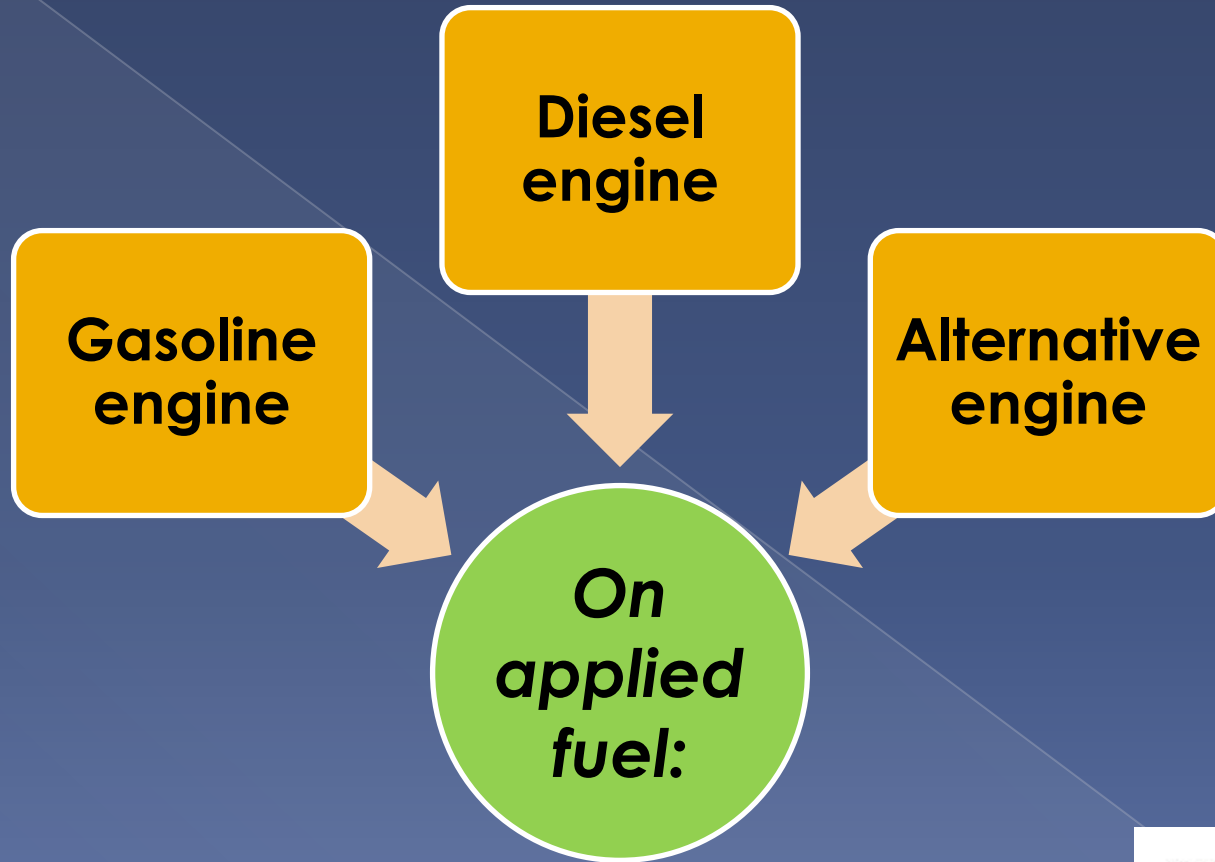
To convert –  
преобразовывать

Thermal –  
тепловой

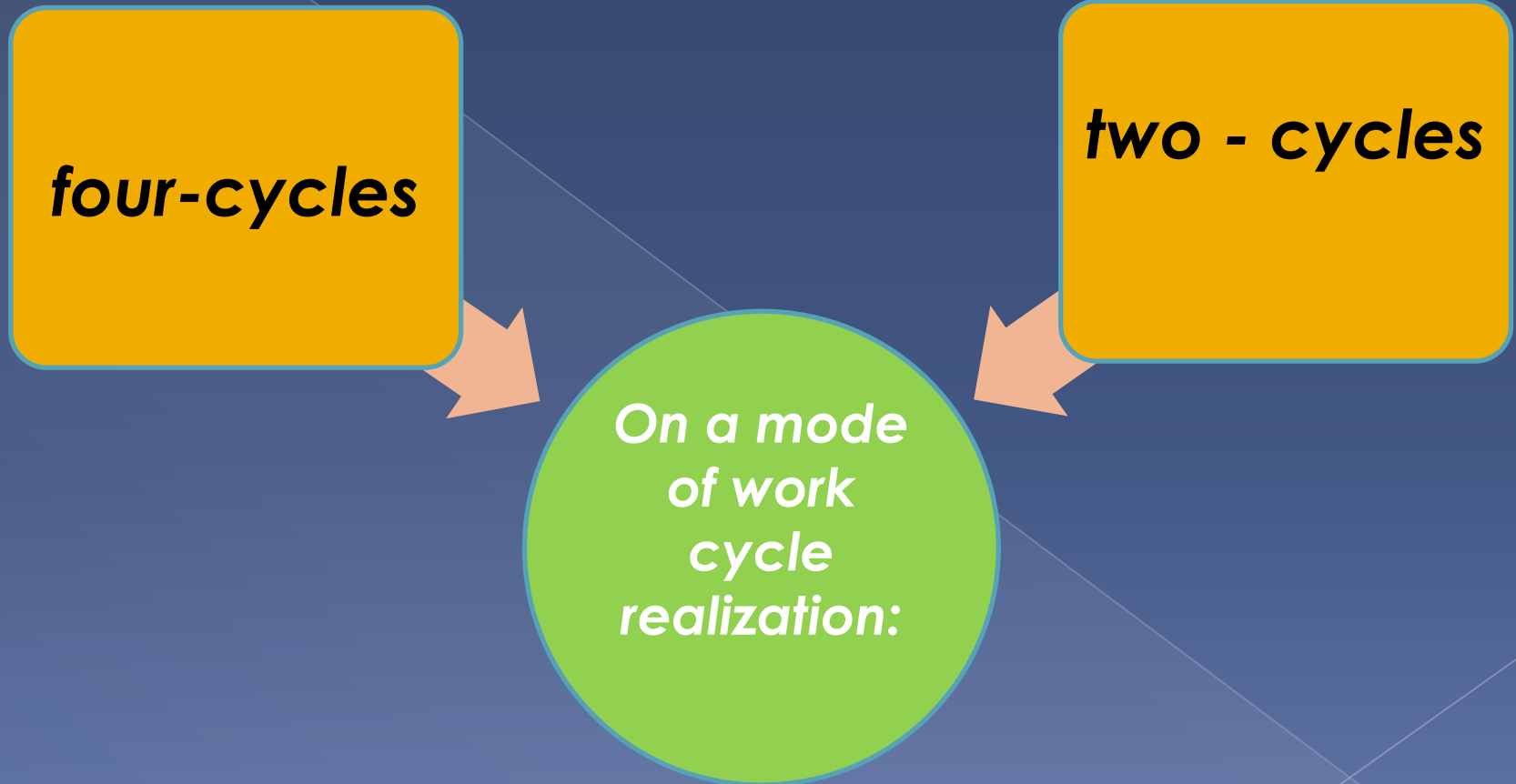
Chemical –  
химический

Mechanical –  
механический

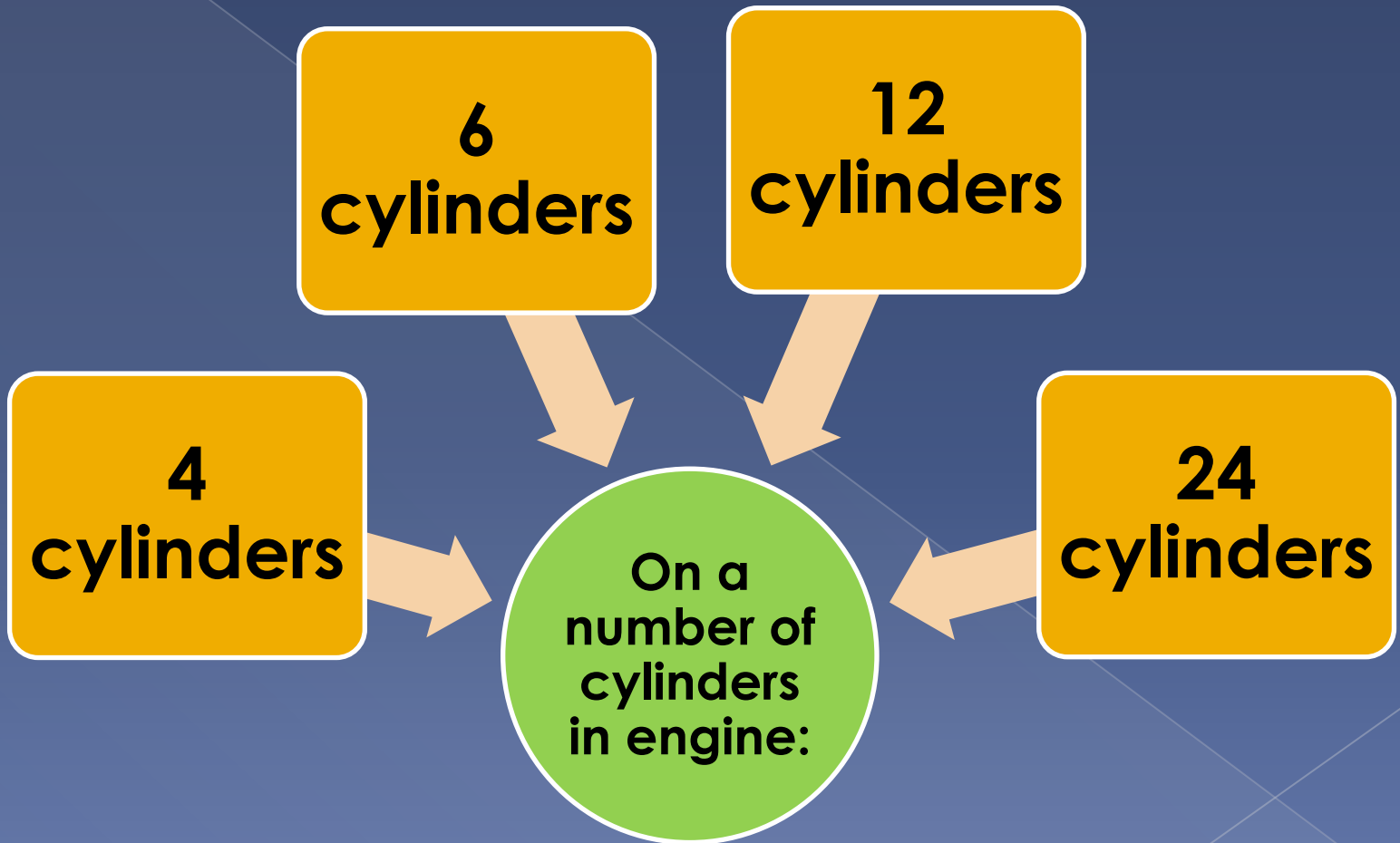
# *Internal combustion engines can be classified to following types:*



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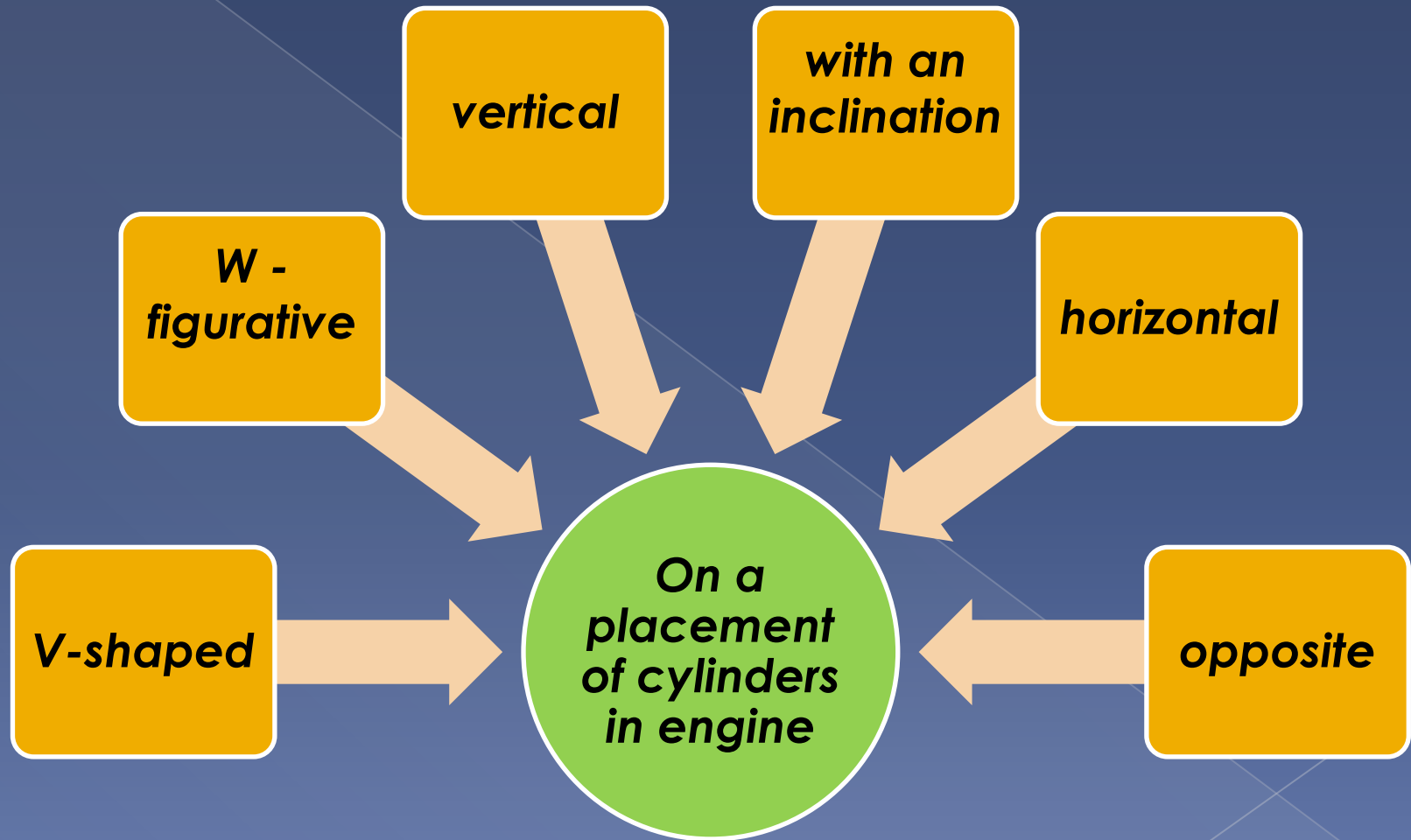


# *Internal combustion engines can be classified to following types:*





# *Internal combustion engines can be classified to following types:*



# The main components of cylinder

A- inlet valve

B- cap

C-Intake manifold\pipe

D- head of cylinder

E- cooling liquid

F- body\shell

G-oil pan

H-oil gasket

I - camshaft

J - exhaust valve

K- plug

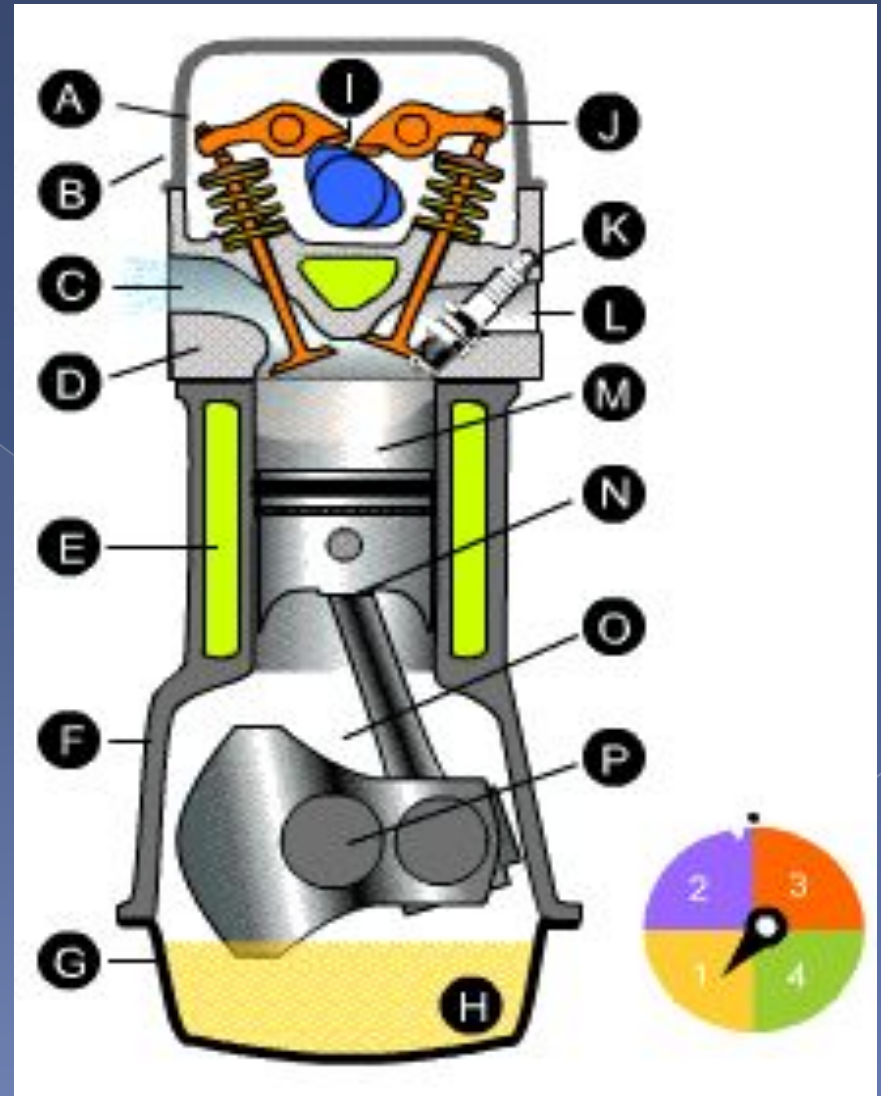
L-exhaust manifold\ / pipe

M-piston

N-connecting rod

O-bearing

P- crankshaft



# Four working cycles of engine

Work cycle is a sequence of the processes periodically repeating in the engine. The cycle can be carried out for two cycles or for four (four-cycles) periods.

## **New words:**

*Sequence* –  
последовательность

*Period* – период

*to repeat* – повторять

*To carry out* –  
осуществлять

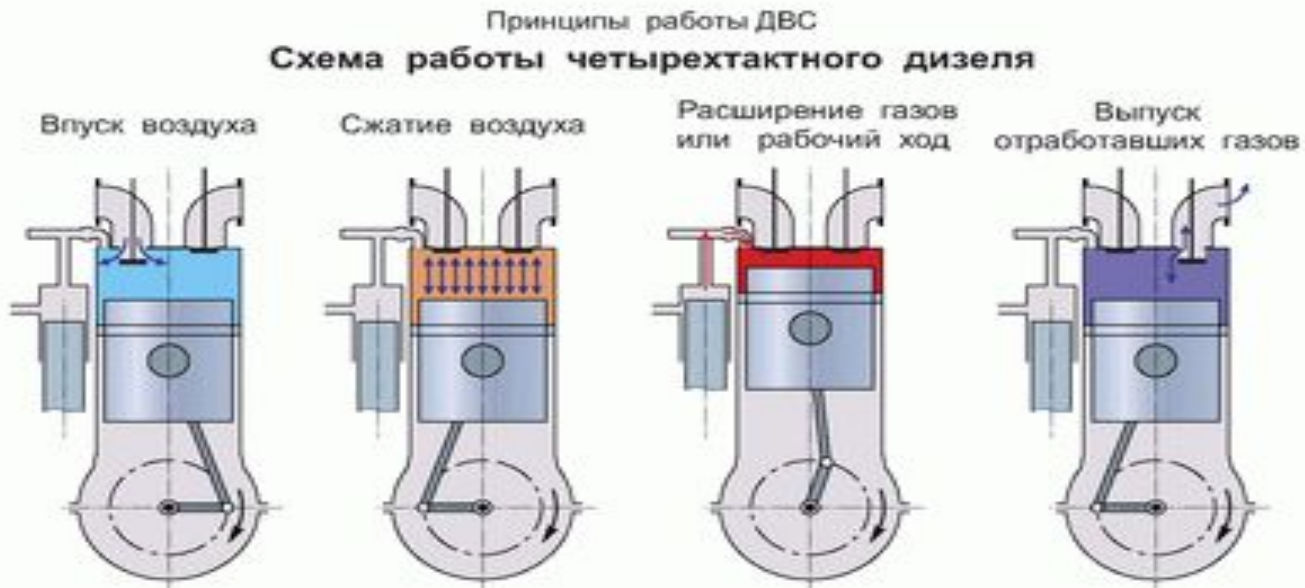
# Four working cycles

Admission

Compression

Expansion

Release



# Practice

*Task 2. Выберите правильный вариант перевод слова.*

- ◎ Ring, piston, race - поршень
- ◎ Camshaft, crankshaft, shaft – коленвал
- ◎ Light, wire, valve – клапан
- ◎ Tapet, rod, pipe – коллектор
- ◎ Rod, top, roof – шатун
- ◎ Lamp, sparking-plug, light – свеча зажигания
- ◎ Chamber, engine, cylinder – двигатель
- ◎ Base of chamber, base of engine – картер двигателя
- ◎ Alcohol, petrol, turpentine – бензин
- ◎ Trunk, cycle, vehicle - автомобиль

# Practice

**Task 3. Из следующих букв составьте слова:**

- ⦿ **Notpis** – \_\_\_\_\_
- ⦿ **Fathksnrac** – \_\_\_\_\_
- ⦿ **Asuthex** – \_\_\_\_\_
- ⦿ **Icylnerd** – \_\_\_\_\_
- ⦿ **Inegen** – \_\_\_\_\_
- ⦿ **Tejakc** – \_\_\_\_\_
- ⦿ **Estrko** – \_\_\_\_\_
- ⦿ **Lpug** – \_\_\_\_\_
- ⦿ **Flue** – \_\_\_\_\_
- ⦿ **Wrope** – \_\_\_\_\_

# Practice

*Task 4. Переведите на английский язык следующие слова:*

**Карбюратор, продукт, цикл, фаза, цилиндр,  
компрессор, мотор, энергия.**

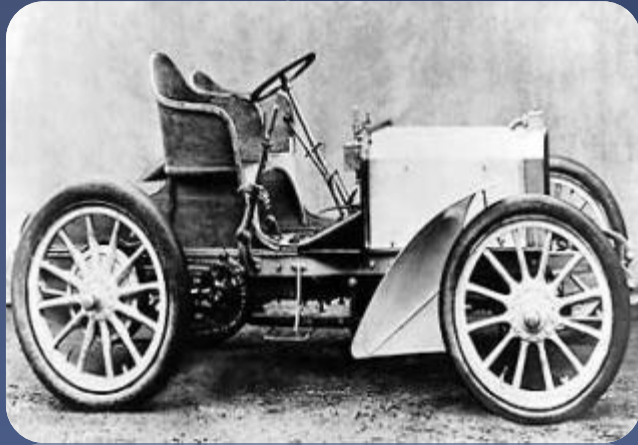
# Practice

*Task 5. Вставьте пропущенные буквы и переведите слова на русский язык:*

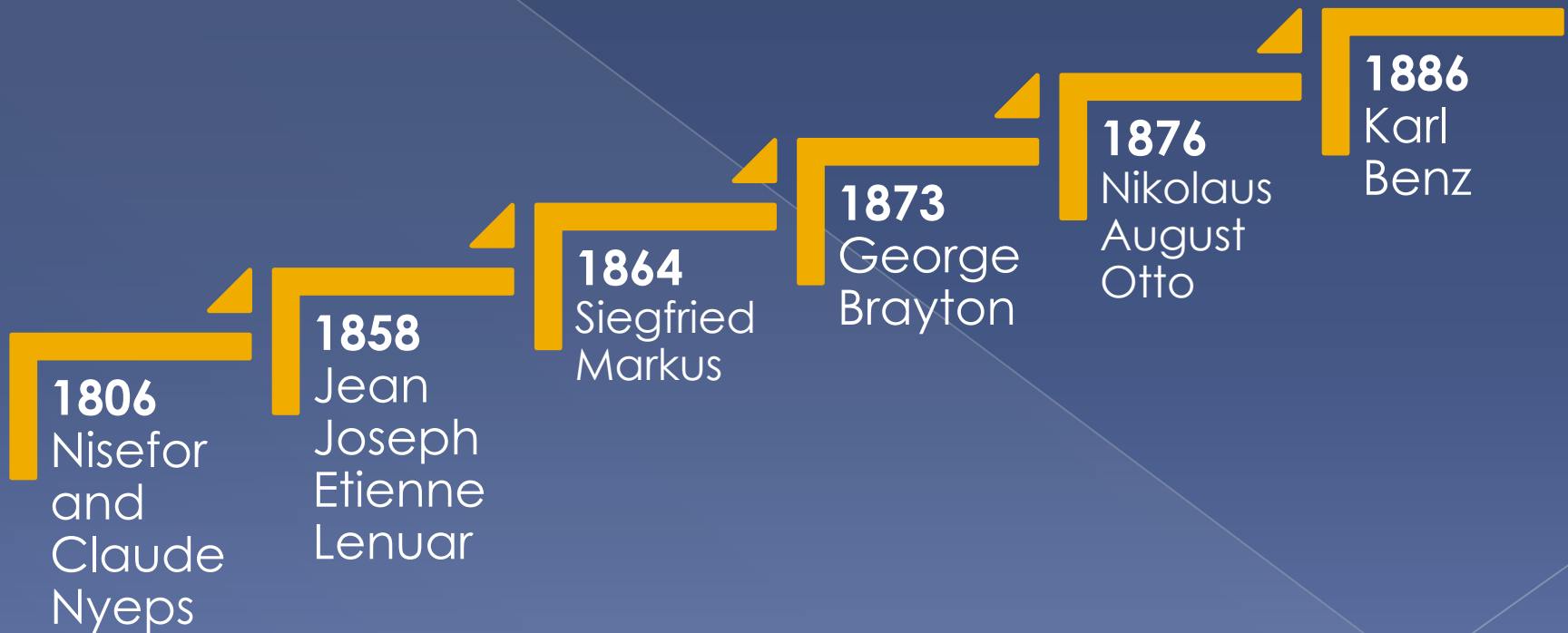
- ⊙ **Comp...ssion** \_\_\_\_\_
- ⊙ **Cylind...r** \_\_\_\_\_
- ⊙ **Liq...id** \_\_\_\_\_
- ⊙ **Exh...st** \_\_\_\_\_
- ⊙ **Dev...ce** \_\_\_\_\_
- ⊙ **Re...ase** \_\_\_\_\_
- ⊙ **Mechani...m** \_\_\_\_\_
- ⊙ **Ro...ate** \_\_\_\_\_
- ⊙ **Vapor...se** \_\_\_\_\_
- ⊙ **Carb...rator** \_\_\_\_\_



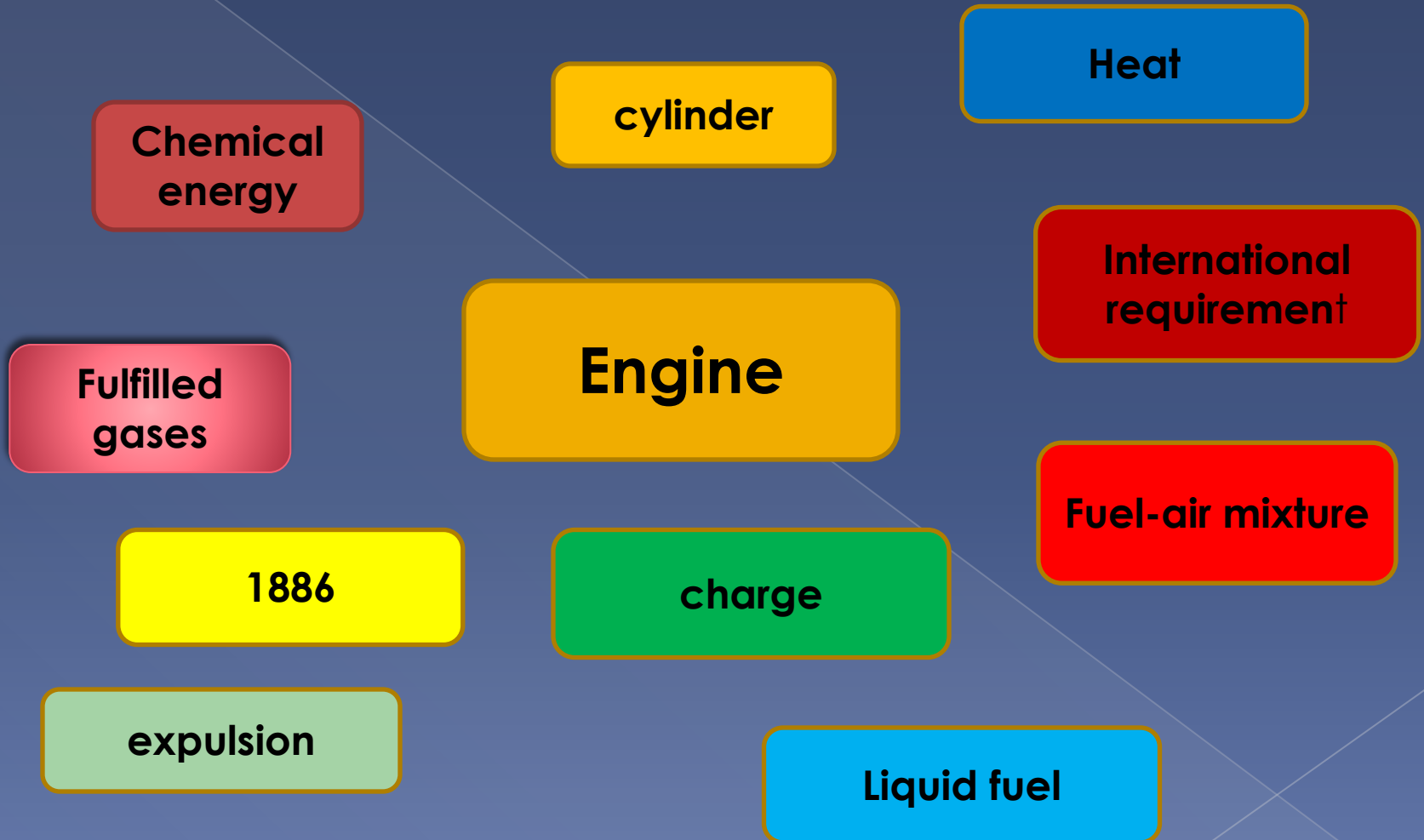
# History of engine creation



# The main dates of engine creation



# “Cluster”



cylinder

Heat

Chemical energy

International requirement

Engine

Fulfilled gases

Fuel-air mixture

1886

charge

Liquid fuel

expulsion