

STUDENT PACK

C) ENGINE ROOM



Beeleigh Mill Restoration Group (BMRG)

Beeleigh Mill – The Engine Room

Beam – a pivoted metal or wooden bar.

Cast Iron – metal made in a mould formed from iron and carbon.

Coal – vegetation under pressure over millions of years to form a carbon rock.

Condense – a liquid turning from a gas to a liquid.

Elephant Boiler – a domed ended steam boiler

Fly Wheel – a revolving wheel used to increase a machines momentum.

Governor – a rotating set of weights moved by gravity.

James Watt – the ‘father’ of the industrial steam revolution.

Momentum – an amount of motion.

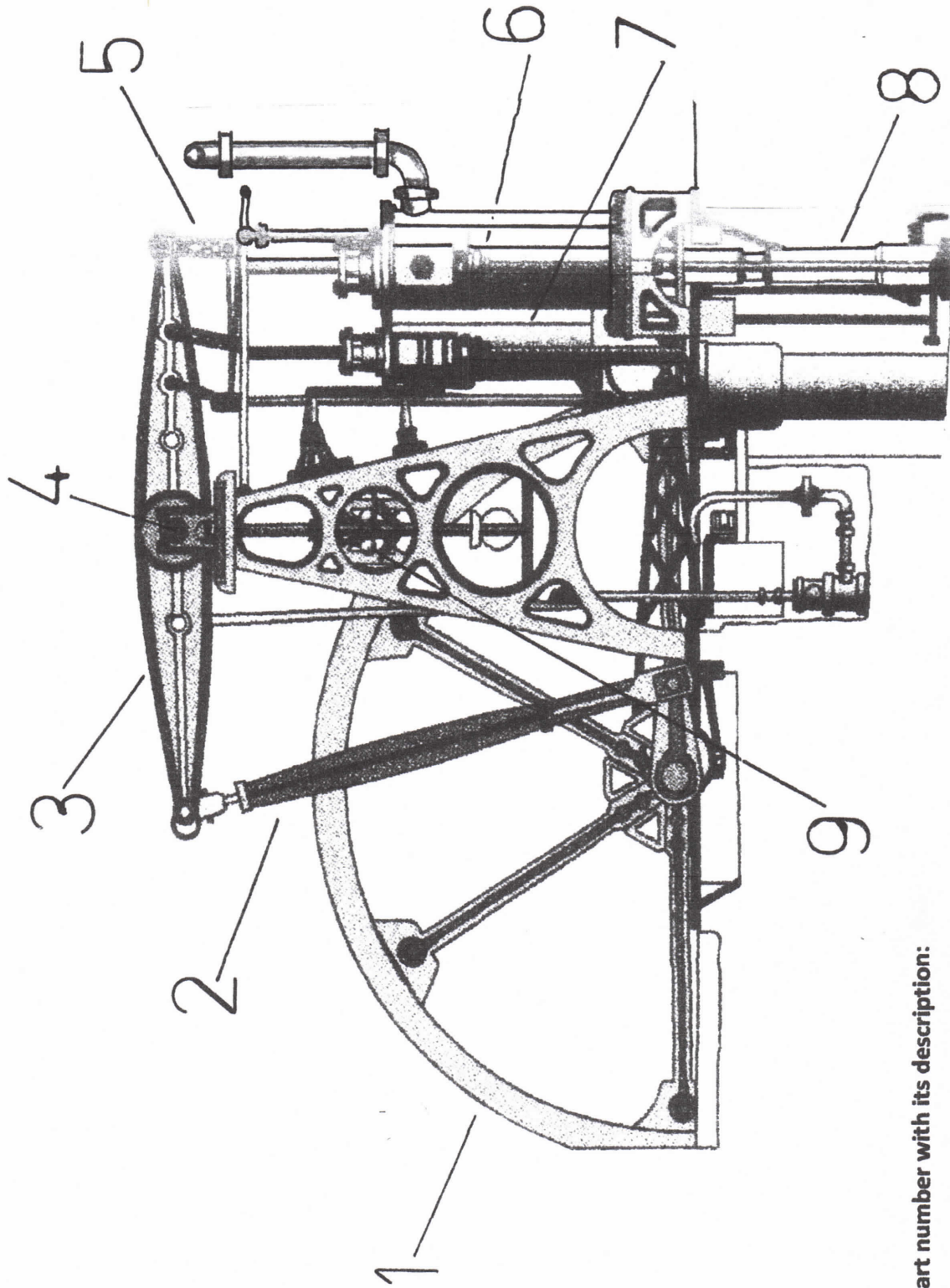
Parallel Motion – movement based on fixed and moving pivots, from an arc to a vertical

Pressure – when molecules are compressed.

Steam – water turned into a gas from a liquid.

Water – an essential liquid for all life on earth.

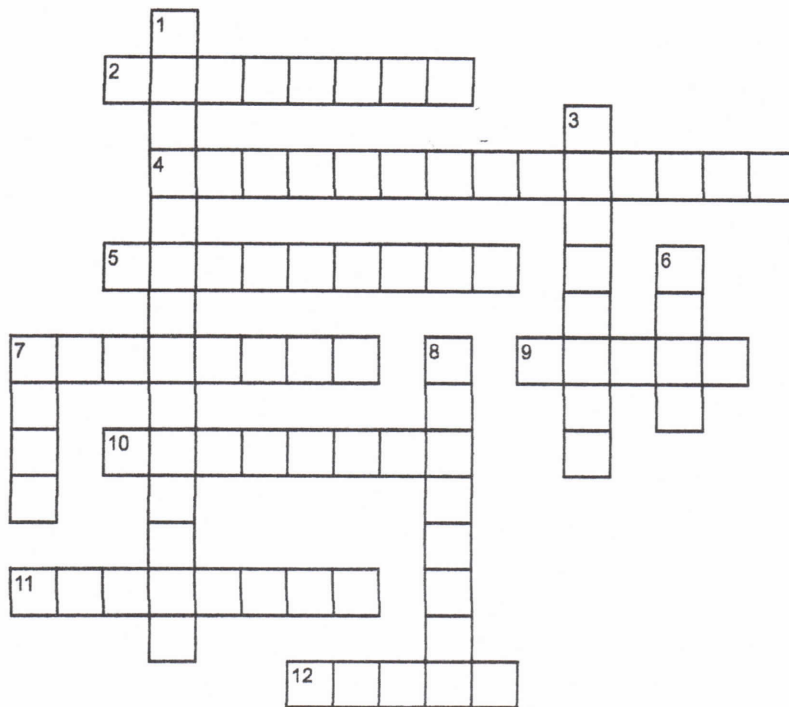
Beeleigh Mill – The Wentworth Engine



Place the correct part number with its description:

| Part Number | Description |
|-------------|-----------------|
| 1 | Great Fly Wheel |
| 2 | Beam |
| 3 | Con Rod |
| 4 | Fulcrum |
| 5 | Governor |
| 6 | Low Pressure |
| 7 | High Pressure |
| 8 | Parallel Motion |
| 9 | Condenser |

Beeleigh Mill - The Engine Room



Across

- 2 revolving wheel used to increase a machines momentum
- 4 movement based on fixed and moving pivots, from an arc to a vertical
- 5 father of the industrial steam revolution
- 7 metal cast in a mould made from iron and carbon
- 9 water turned into a vapour when heated
- 10 how vapour cools to become water, from a gas to a liquid
- 11 a rotating set of weights moved by gravity
- 12 an essential liquid for all life on earth

Down

- 1 a dome-ended steam boiler
- 3 an amount of motion
- 6 a pivoted metal/wooden bar
- 7 vegetation pressed over time to form a carbon rock
- 8 when molecules are compressed

Beeleigh Mill - The Engine Room

Complete forward, backward or diagonal words, circle or cross through

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E | X | N | W | G | Q | H | Z | F | P | X | C | F | P | V | C | M | W |
| N | L | G | O | A | C | S | T | V | L | O | X | A | R | O | K | A | T |
| E | J | E | O | R | N | F | P | S | P | Y | R | W | A | M | T | E | T |
| V | K | S | P | Q | O | R | K | G | D | A | W | L | N | W | F | T | A |
| J | K | D | V | H | E | Y | I | B | L | L | G | H | W | T | F | S | W |
| J | Z | K | L | S | A | W | M | L | S | A | T | K | E | X | S | P | S |
| B | V | A | S | M | N | N | E | I | X | H | G | E | U | E | R | J | E |
| Y | W | U | G | H | I | L | T | C | Y | B | Y | B | L | W | L | U | M |
| W | R | F | A | G | M | K | N | B | A | W | B | E | A | M | P | P | A |
| E | Q | Q | R | O | C | T | K | E | O | S | A | Q | E | C | T | M | J |
| G | Q | F | T | H | O | E | M | W | M | I | T | T | N | X | N | M | Q |
| C | F | I | R | E | N | O | X | O | T | Y | L | I | E | L | B | I | W |
| B | O | S | P | M | D | G | Z | K | M | F | I | E | R | R | Q | K | G |
| N | B | W | L | G | E | E | E | W | R | E | I | Q | R | O | K | F | C |
| O | T | W | Y | D | N | G | O | V | E | R | N | O | R | K | N | Q | Y |
| U | G | A | U | L | S | U | T | I | J | V | E | T | S | H | W | N | K |
| M | X | T | X | R | E | R | H | D | A | I | M | T | U | Q | D | L | G |
| X | R | C | W | J | E | T | K | V | L | J | J | Y | B | M | Z | P | S |

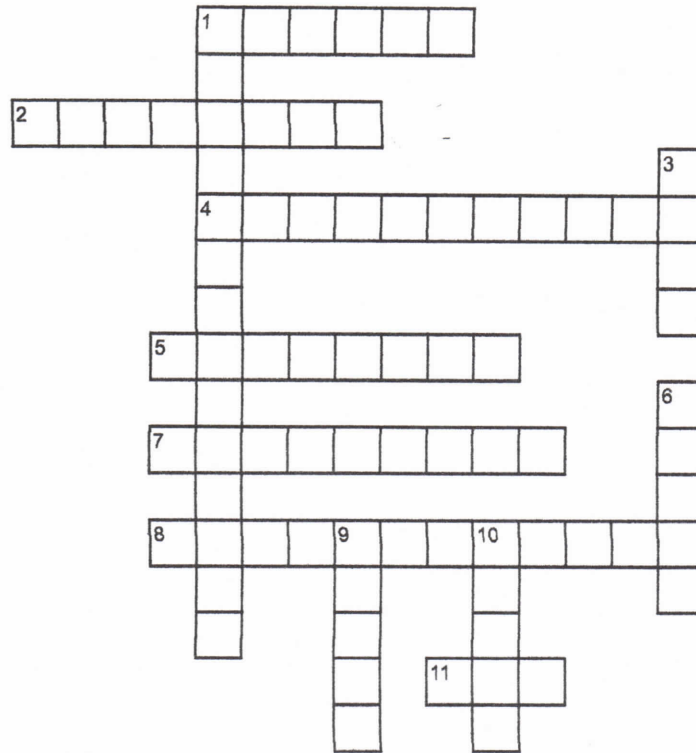
BEAM
CAST IRON
COAL
CONDENSE
ELEPHANT BOILER

FLY WHEEL
GOVERNOR
JAMES WATT
MOMENTUM
PARALLEL MOTION

PRESSURE
STEAM
WATER

Wentworth Beam Engine

Complete forward, backward or diagonal words, circle or cross through



Across

- 1 part of an engine which is driven under pressure
- 2 a device used to control the supply of steam or water and so limit speed
- 4 when pressure is lessened or below normal
- 5 a large revolving wheel used to increase a machines speed
- 7 a mechanism which changes vapour to a liquid
- 8 when pressure is concentrated or increased above normal
- 11 a shape attached to a rotating axle or beam to give variable motion

Down

- 1 a linkage which moves vertical motion to a beam in an arc
- 3 a long metal or wooden support
- 6 a condensed state of vapour
- 9 the centre point about which a shaft or beam is in balance
- 10 a vapour state of water

Wentworth Beam Engine

Forward, backward or diagonal.



BEAM
CAM
CONDENSER
ENGINE

FLY WHEEL
GOVERNOR
HIGH PRESSURE
PARALLEL MOTION

PISTON
PIVOT
STEAM
WATER