Dams and reservoirs - Transforming

SCIENCE OF THE SNOWY *with Kirsten Banks*

GRAVITY

Multiple choice questions

1

Which asset did Kirsten Banks visit to talk about gravity?

CIRCLE ANSWER

Murray 1 Power Station

Jindabyne Pumping Station

Discovery Centre, Cooma

2

What is the head difference (approximately) between the upper reservoir and the lower reservoir?

CIRCLE ANSWER

500cm

500km

500m

3

What is the name given to the white pipes?

CIRCLE ANSWER

Sausages

Penstocks

Tubes

Circle true or false

Gravity is the force responsible for allowing hydro electricity to be generated

True | False

Gravity is the force applied to convert potential energy to kinetic energy

True | False

The force of gravity enables the water to run through the turbines to generate renewable electricity

True | False

How far does the water travel?

Insert the correct numbers

12km | 1.5km

From the upper reservoir to the top of the penstocks at the Murray 1 valve house is approximately _____ and from the top of the penstocks at the Murray 1 valve house to Murray 1 Power Station water travels in the penstocks approximately _____ .

Murray 1 Power Station

Multiple choice questions

1

The penstocks are always full of _____ during normal operation .

CIRCLE ANSWER

- Steam
- Water
- Air
- Sharks

2

The flow rate of the water through the penstocks is _____ .

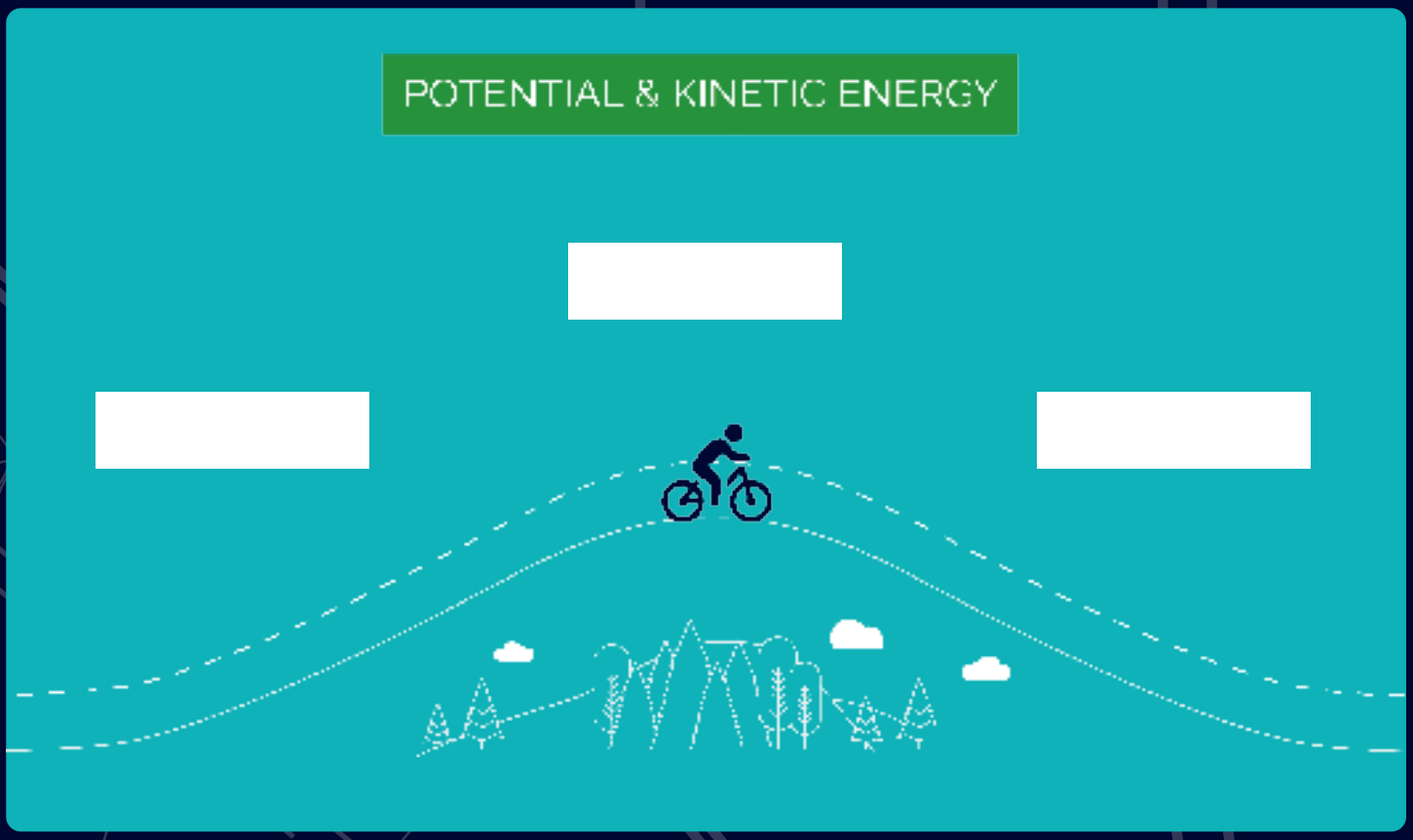
CIRCLE ANSWER

- 24,000 litres per second
- 24 litres per second
- 24 sharks per second
- 240 litres per second

Potential and kinetic energy

Label the diagram using the word bank below

Energy in-kinetic | Potential energy | Energy out-kinetic




Murray 2 penstocks

Personal research box

Write a list of other ways you see gravity at work in your school and home

Example - water running from an open tap

1. _____
2. _____
3. _____
4. _____
5. _____

Instructions- Choose two examples from your list to draw and label

Hint - include the label ‘gravity’ with indicating arrows

Example one

Example two