Stages 3 & 4

Engineering
Activity 4

SCIENCE OF THE SNOWY SCHEME
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 _____ .

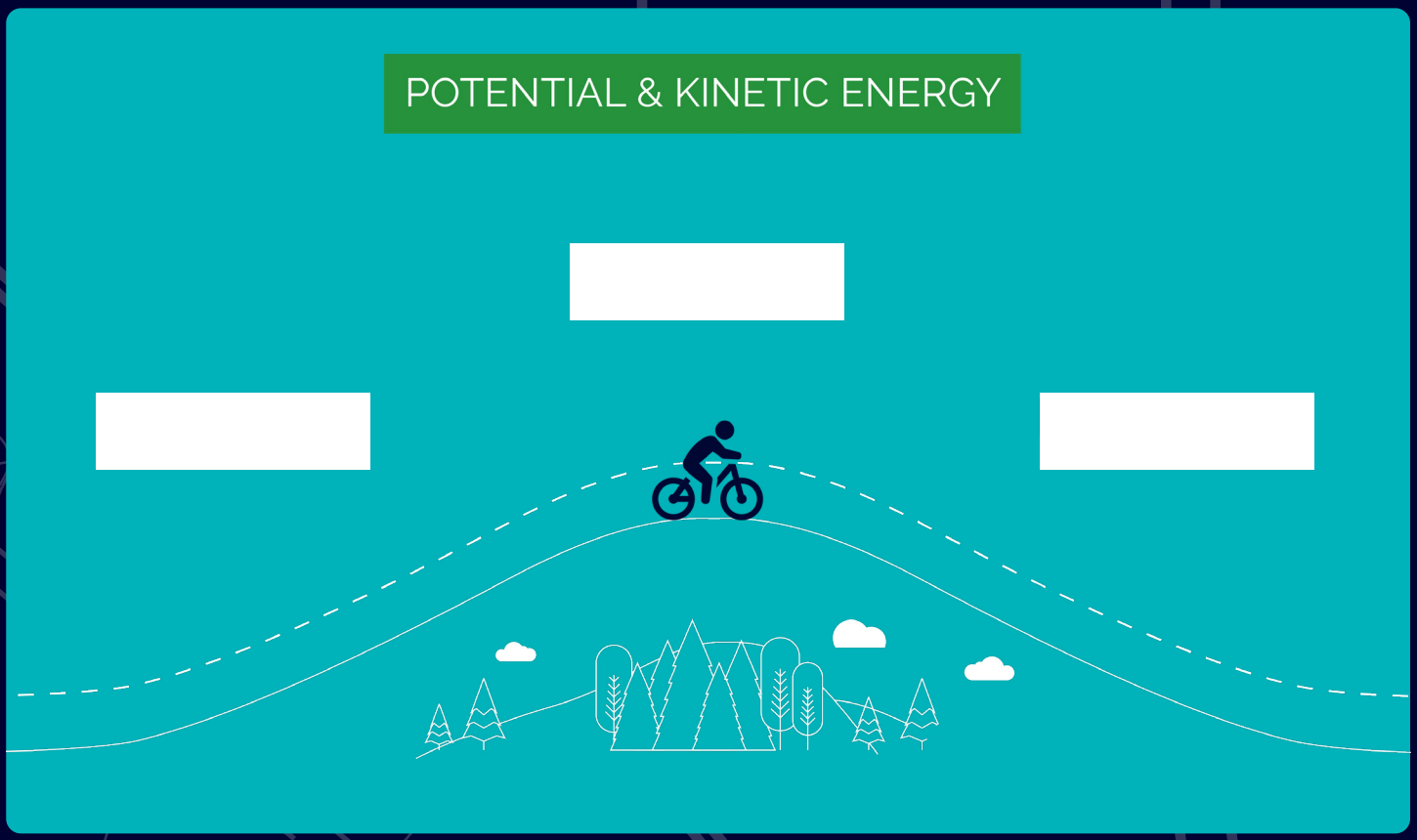
CIRCLE ANSWER

- 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



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