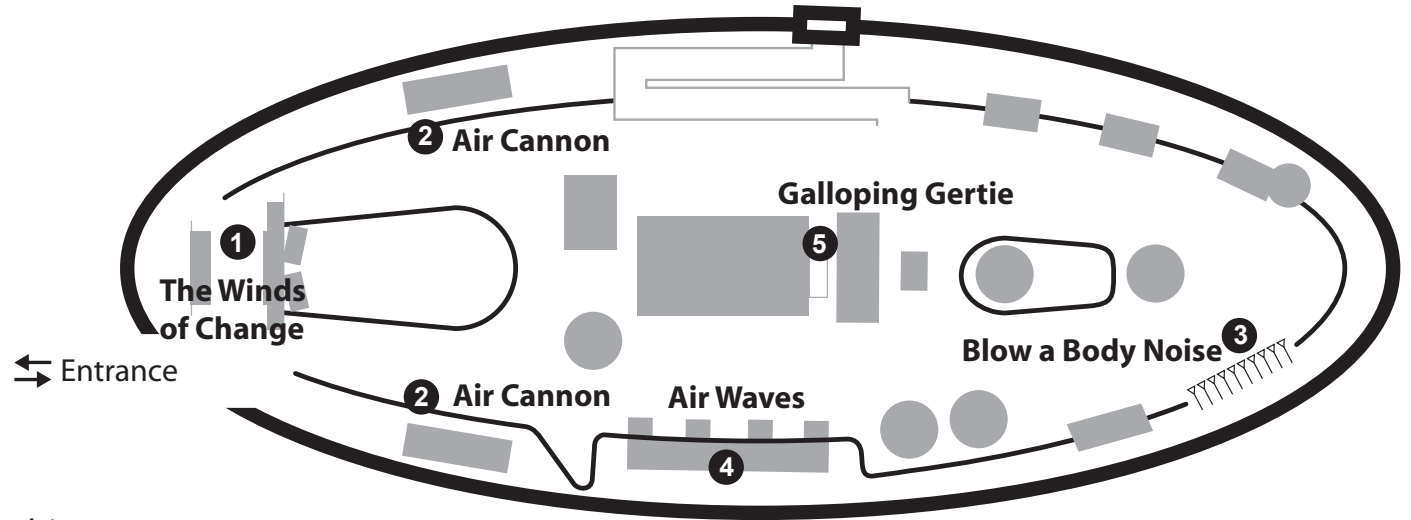


Air Pavilion Quiz

Name: _____ Class: _____



1 The **Winds of Change** is a wind machine.
Does the wind **push** or **pull** ?

2 The **Air Cannon** uses a **p _ _ _** and **p _ _ _** force to make the shapes on the metal wall.
What do the patterns look like?

3 **Blow a Body Noise** - Circle the places in your body where you think you would find air.

- Lungs Bones Mouth Brain Heart
- Blood Guts

4 **Air Waves** uses different materials to make the noises you hear. Where on Air Waves can you find these materials?

Air **In the pipes**

Glass _____

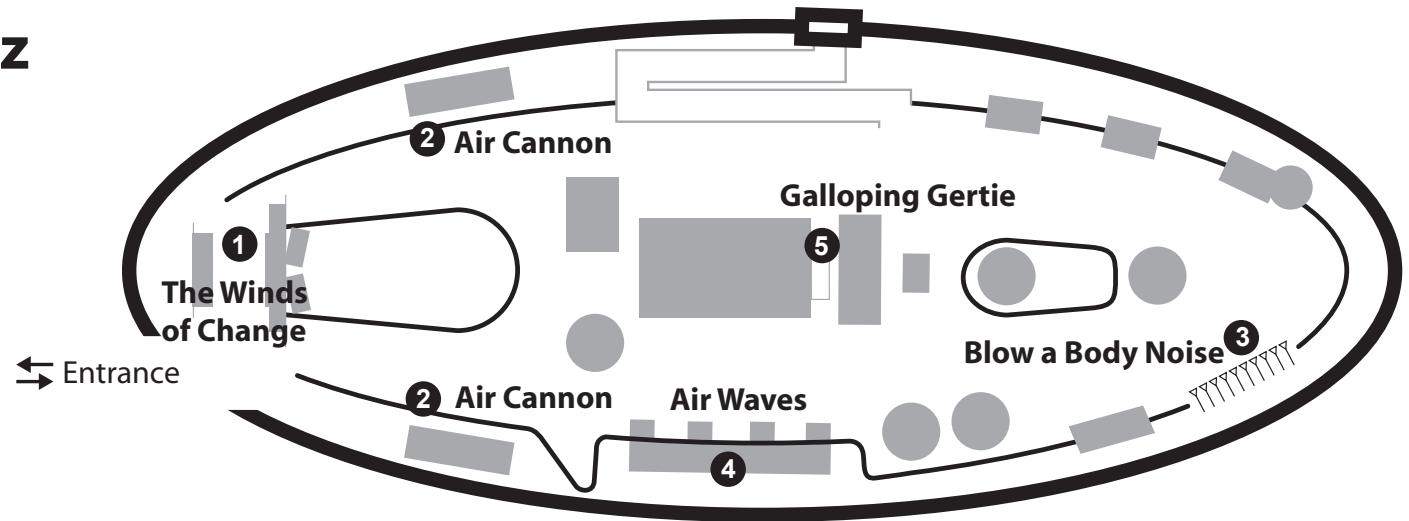
Plastic _____

Water _____

Steel _____

5 **Galloping Gertie** shows the story of the Tacoma Narrows Bridge. Why do you think the bridge fell down?

⚡ Air Pavilion Quiz Answers



1 The **Winds of Change** is a wind machine.
Does the wind **push** or **pull** ?

2 The **Air Cannon** uses a **push** and **pull** force to make the shapes on the metal wall?

What do the patterns look like?

Ripples on a pond

4 **Blow a Body Noise** - Circle the places in your body where you think you would find air.

Lungs Bones Mouth Brain Heart
Blood Guts

Note: Some of the gases found in the air are present as gases **dissolved** in the blood e.g. oxygen, carbon dioxide.

5 **Air Waves** uses different materials to make the noises you hear. Where on Air Waves can you find these materials?

Air In the pipes

Glass **Bottles**

Plastic **Tubes**

Water **In the bottles**

Steel **Pipes and frame**

6 **Galloping Gertie** shows the story of the Tacoma Narrows Bridge. Why do you think the bridge fell down?

The wind pushed and pulled the bridge. This made the bridge vibrate. These vibrations were so strong that the bridge broke apart.

Note: Science calls this condition **resonance**.

Earth Pavilion Quiz

Name: _____ Class: _____

1 Tunnellers and Borrowers.

Name any two animals which live underground?

2 Laying Down Rock.

Which three materials are taken from the Earth to make steel?

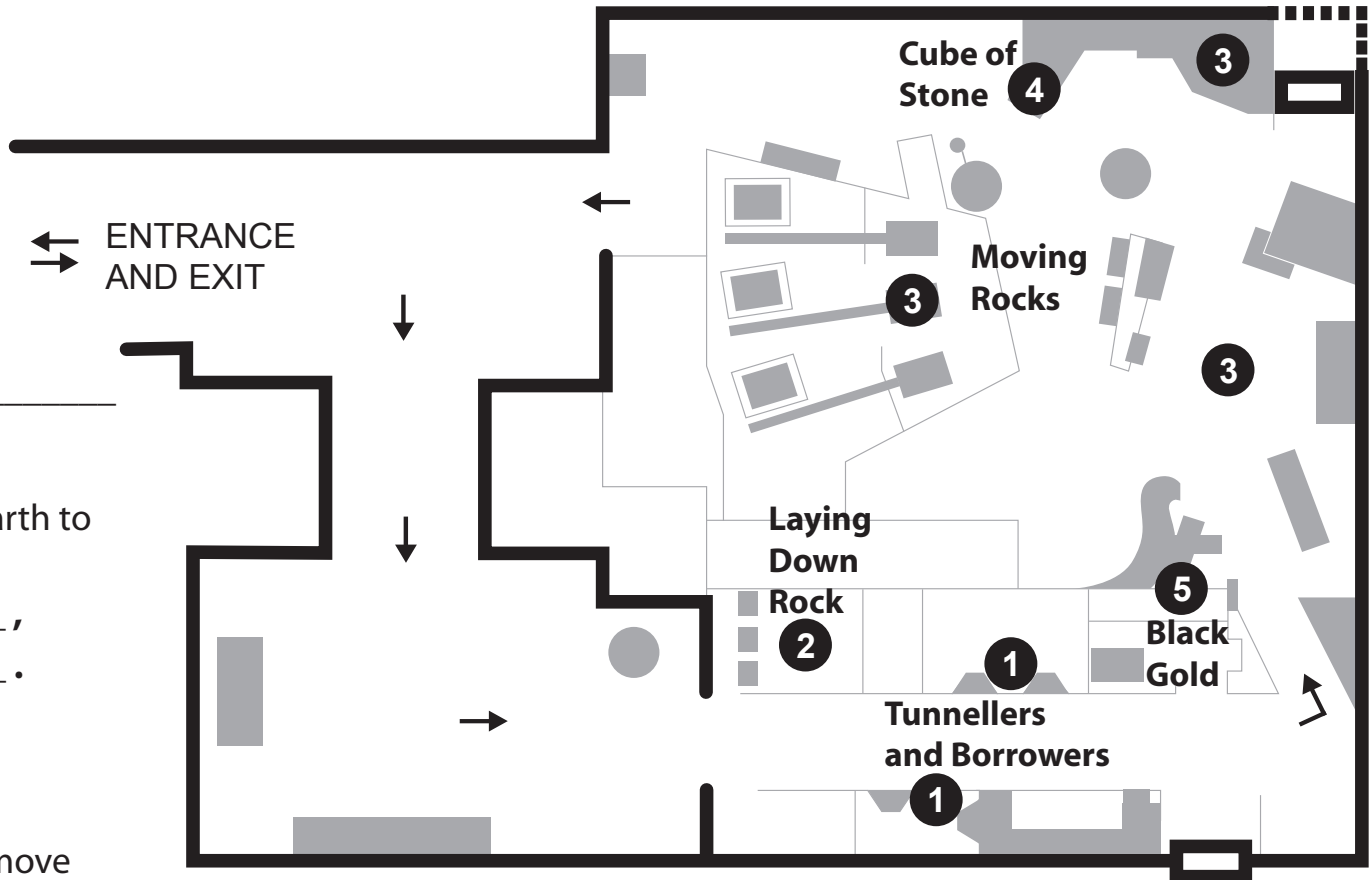
I _____ O _____,
C _____, L _____.

3 Moving Rocks.

How many different machines are used to move the rocks around in the Earth Pavilion?

4 Cube of Stone.

Name two forces in action when you lift the cube of stone.



5 Black Gold.

Push the coal tub, shout down the hole and find out about coal mining. Add **three** more words to describe what it was like to work as a child down the mines 200 years ago...

dark

Earth Pavilion Quiz Answers

1 Tunnellers and Borrowers.

Name any two animals which live underground?

Any 2, but **Ants** and **Rats** are shown in the exhibit.

2 Laying Down Rock.

Which three materials are taken from the Earth to make steel?

Iron Ore **Coal** **Limestone**

3 Moving Rocks.

How many different machines are used to move the rocks around in the Earth Pavilion?

4, these are **diggers**, **bucket lifts**, **conveyor belts** and **wheelbarrows** (**5** if you include the **excavator wheel**).

4 Cube of Stone.

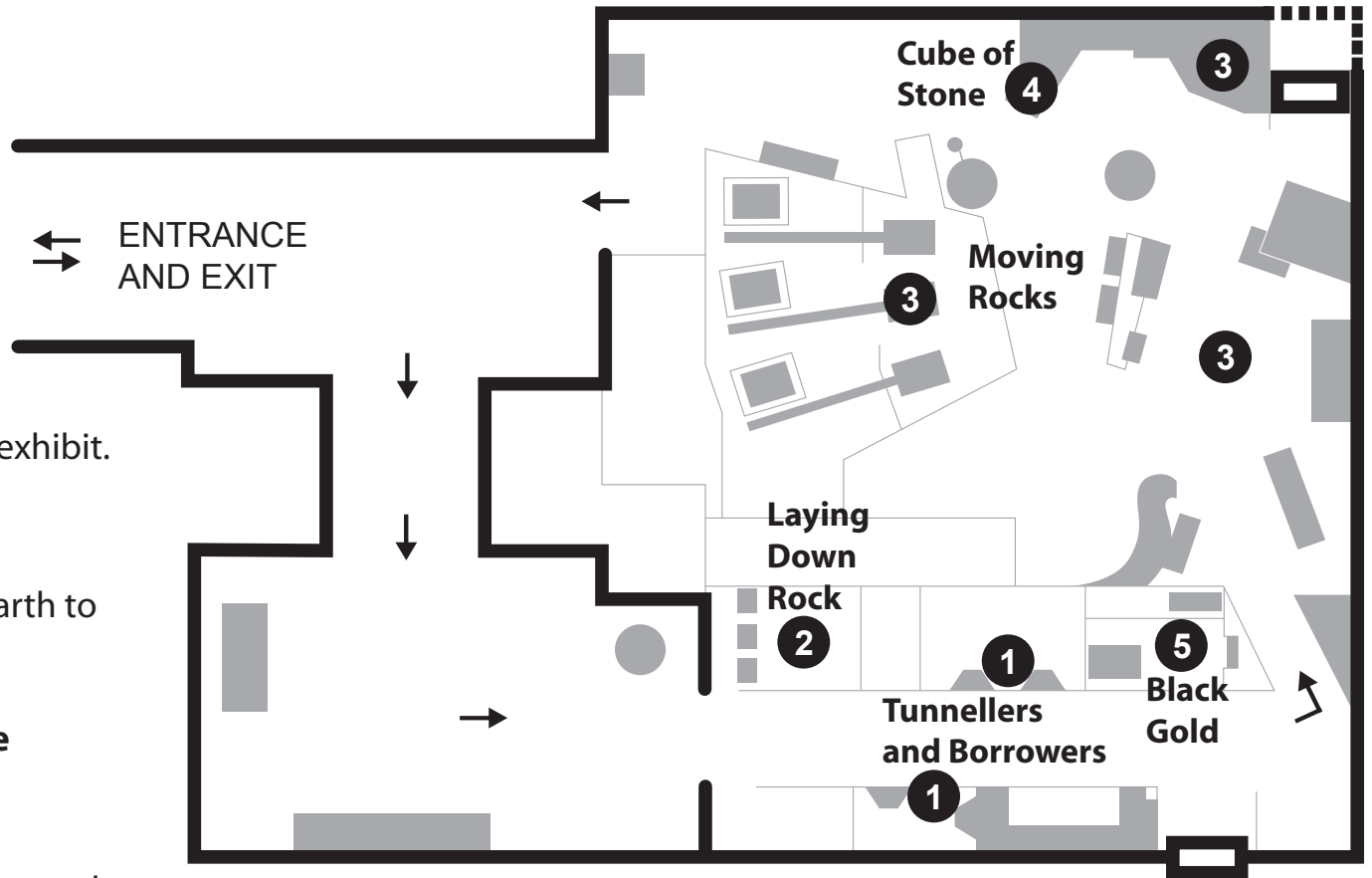
Name two forces in action when you lift the cube of stone.

Any 2 from **Pull**, **Gravity**, **Friction**.

5 Black Gold.

Push the coal tub, shout down the hole and find out about coal mining. Add **three** more words to describe what it was like to work as a child down the mines 200 years ago...

dark **scary, tiring,**
dangerous, filthy, dirty, dusty, choking,
cramped ... etc.



Fire Pavilion Quiz

1 The **Steel Saver** crane can lift the steel cans because they are ...

hard **metal** **magnetic**

2 **Electric Arc.**

What happens to the steel when the spark comes down? It ...

freezes **melts** **catches fire**

3 **Fire Safety.**

If a fire starts in your home, in which room is it most likely to happen? _____

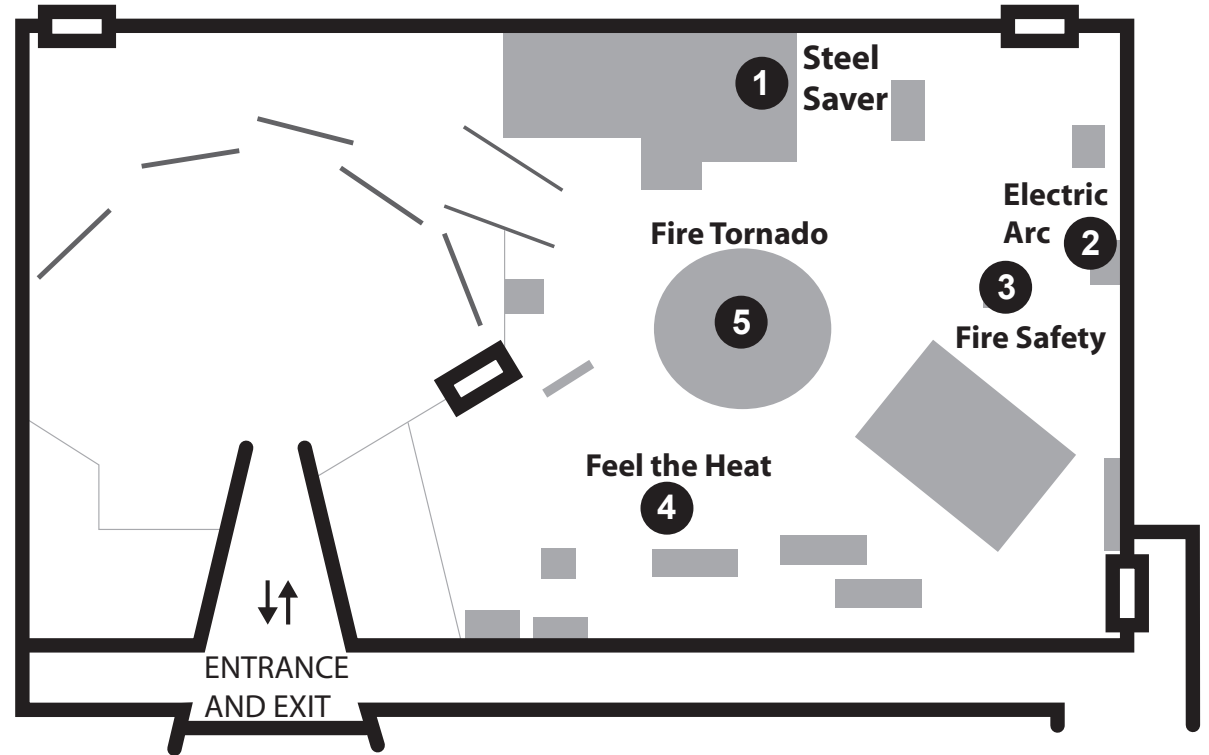
4 **Feel the Heat.**

How did the plate in the middle feel?

warm **cold** **both**

Try and explain your answer.

Name: _____ Class: _____



5 How does the **Fire Tornado** change as it burns? ... draw your answer below.

just lit

burning brightly

near the end

Fire Pavilion Quiz Answers

1 The **Steel Saver** crane can lift the steel cans because they are ...

hard metal **magnetic**

2 **Electric Arc.**
What happens to the steel when the spark comes down? It ...

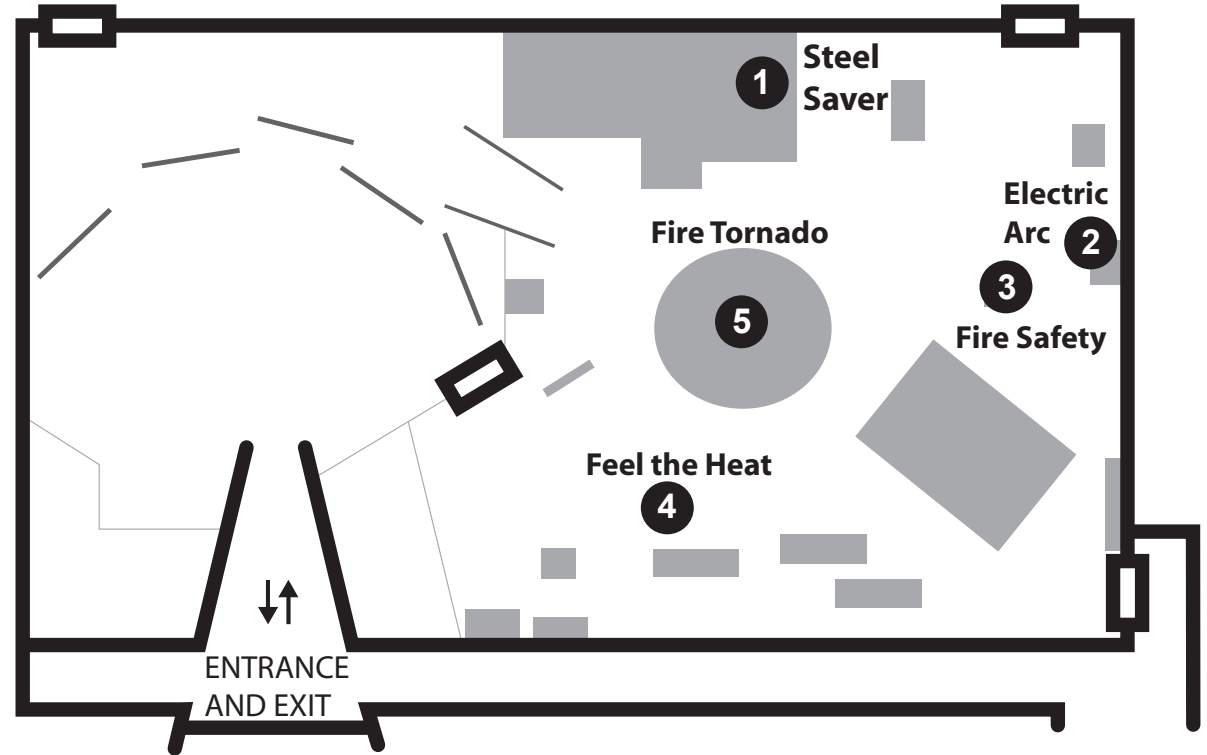
freezes **melts** catches fire

3 **Fire Safety.**
If a fire starts in your home, in which room is it most likely to happen? **Kitchen**

4 **Feel the Heat.**
How did the plate in the middle feel? ... put a circle around your answer.

warm cold **both**

Your right hand is cold and your left hand is warm. The middle plate has a temperature in between. **Heat goes into your right hand and out of your left hand.** Heat always flows from warmer to cooler places. Your body senses this heat flow.



5 How does the **Fire Tornado** change as it burns? ... draw your answer below.

just lit

small flames, no tornado.

burning brightly

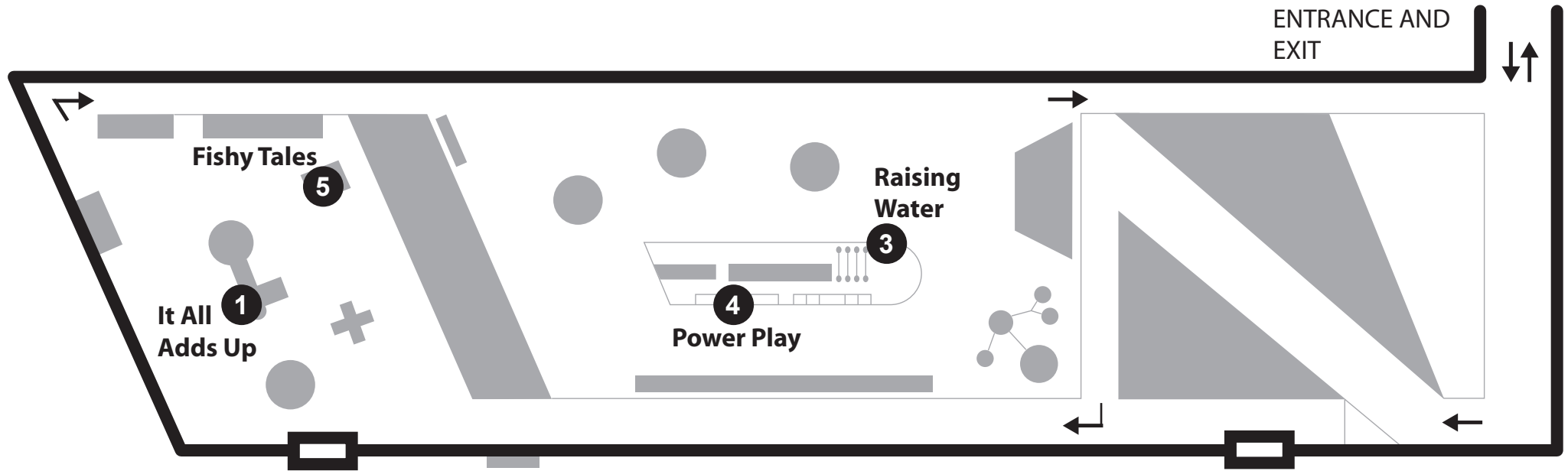
tall spiral, wider at the base, the hot air is pushed up and the fan makes the air rotate.

near the end

narrow spiral, like a whip, smaller as the fuel runs out.

Water Pavilion Quiz

Name: _____ Class: _____



1 **It All Adds Up.** How many litres of water did you use?

2 Where in the Water Pavilion can you find **ice, water** and **steam**? Mark your answers on the map with a cross.

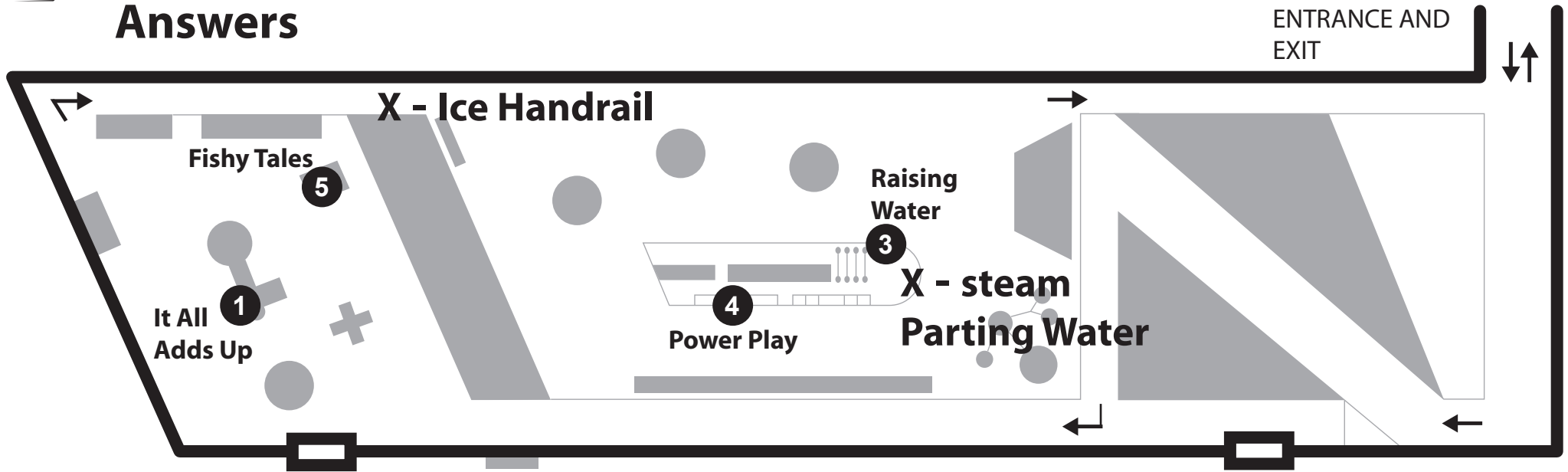
3 **Raising Water.** Which colour machine lifted the most water in the least time?

4 **Power Play** is made of 3 different water wheels. Which wheel turns with the largest force?

undershot **overshot** **breastshot**

5 **Fishy Tales.** Write down 3 things you can see that could harm the salmon?

Water Pavilion Quiz Answers



1 It All Adds Up. How many litres of water did you use?
Answer varies, but usually **more than 100** litres.

2 Where in the Water Pavilion can you find **ice, water** and **steam**? See plan for ice and steam, and there is water all over the place!

3 Raising Water. Which colour machine lifted the most water in the least time?
Blue

4 Power Play is made of 3 different water wheels. Which wheel turns with the largest force?

undershot **overshot** breastshot

5 Fishy Tales. Write down 3 things you can see that would harm the salmon? Any 3 from...

Millstones, Cartwheels, Sewage, Nets, Bicycle Wheels, Cans, Welly Boots, Car Tyres, and Shopping Trolleys