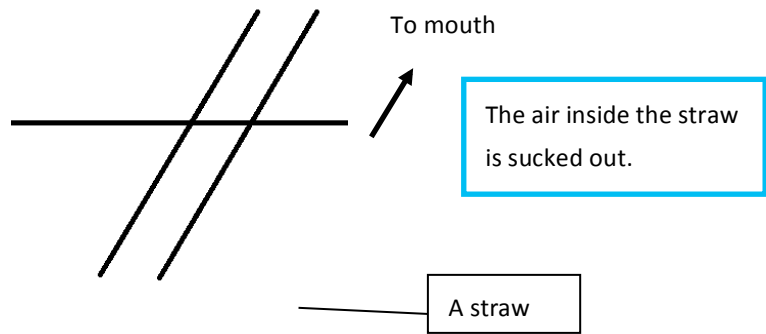




Name: () Class: Group: Date:

Topic	How can we explain the working principle of everyday tools?
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1. Drinking Straw



Working principle of a drinking straw

Events	Explanation of events	Guiding questions
Cause	First, the air inside the straw is sucked out.	What is the action?
Effect 1		What is the <u>change</u> in the number of air particles inside the straw? (increase or decrease ?)
Effect 2		What is the <u>change</u> in the air pressure inside ? (increase or decrease ?)
Effect 3		Try to <u>compare</u> the air pressure at different regions. (Is the air pressure inside the straw greater than/or lower than that outside? N.B. outside pressure is the atmospheric pressure.)
Result	As a result, water is forced to enter the straw and move upwards.	What will happen <u>due to</u> the air pressure difference ?



Name: () Class: Group: Date:

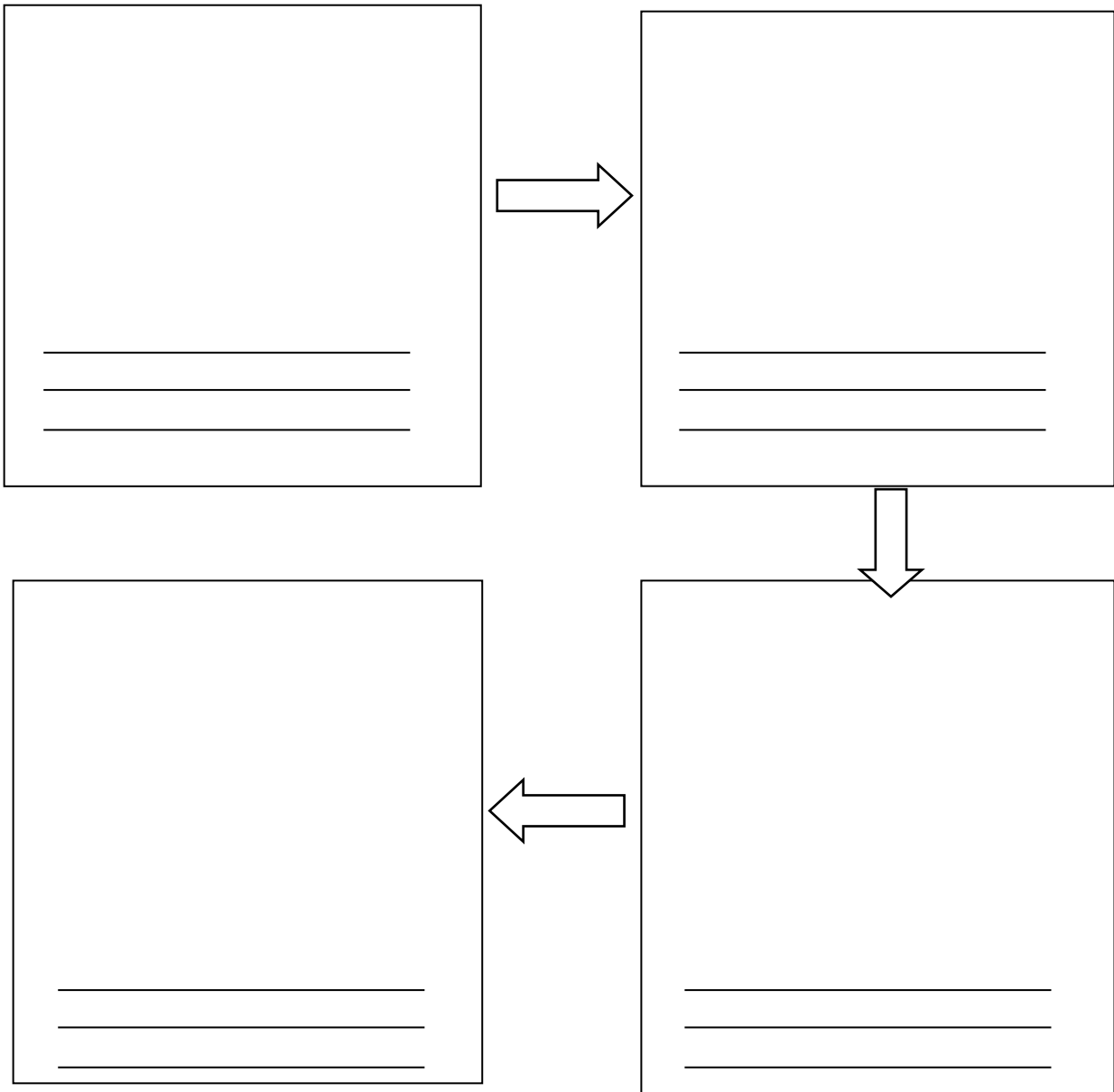
Topic	How can we explain the working principle of everyday tools?
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Working principle of a drinking staw

- Instructions:**
1. Draw labelled diagrams with some written explanations to present your ideas.
 2. You may draw arrows with different sizes and colours to show:

i. movements of air particles		iii. air pressure inside the straw	
ii. movements of water		iv. air pressure outside the straw (i.e. the atmospheric pressure)	

Situation: When we use a drinking straw, ...

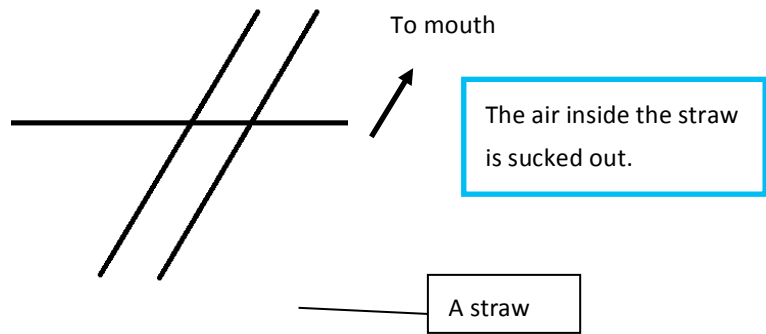




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Effect 2		What is the change in air pressure inside?
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Result	As a result, water is forced to enter the straw and move upwards.	What will happen due to the air pressure difference?



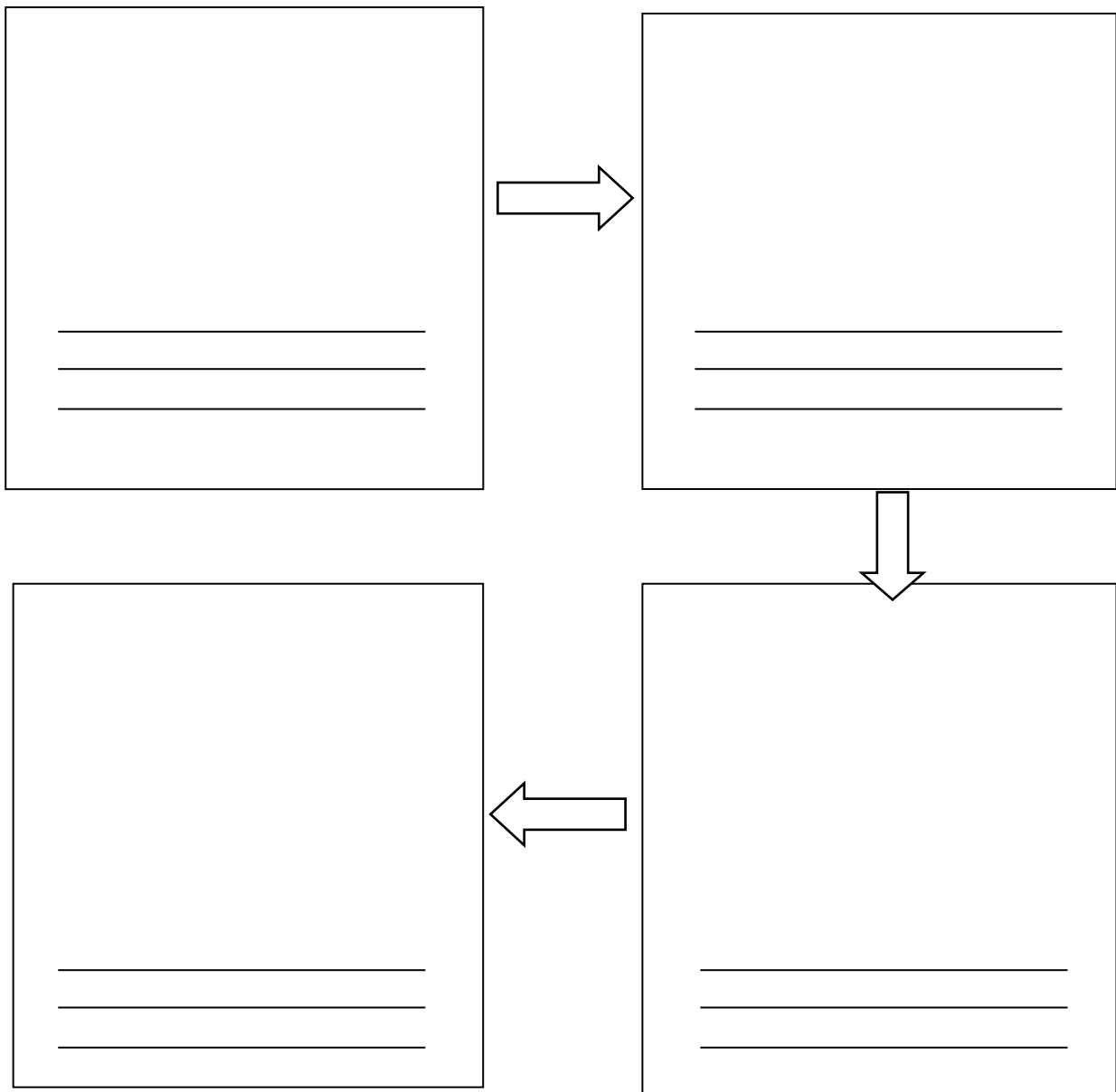
Name: () Class: Group: Date:

Topic	How can we explain the working principle of everyday tools?
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Working principle of a drinking straw

- Instructions:**
1. Draw labelled diagrams with some written explanations to present your ideas.
 2. You may draw arrows with different sizes and colours to show the movements of air particles water and the direction of air pressure/force.

Situation: When we use a drinking straw, ...

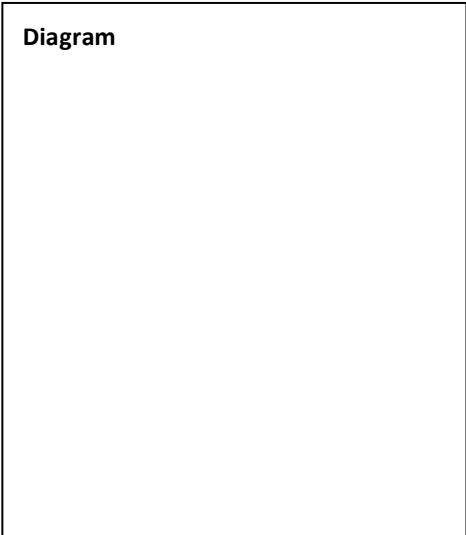




Name: () Class: Group: Date:

Topic	How can we explain the working principle of everyday tools?
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2. Dropper



Working principle of a dropper

Events	Explanation of events	Guiding questions
Cause	The air inside the dropper is squeezed out.	What is the action?
Effect 1		What is the <u>change</u> in the number of air particles inside the straw? (increase or decrease?)
Effect 2		What is the <u>change</u> in the air pressure inside ? (increase or decrease?)
Effect 3		Try to <u>compare</u> the air pressure at different regions. (Is the air pressure inside the straw greater than/or lower than that outside? N.B. outside pressure is the atmospheric pressure.)
Result	As a result, some liquid is forced to enter the dropper and move upwards.	What will happen <u>due to</u> the air pressure difference ?



Name: () Class: Group: Date:

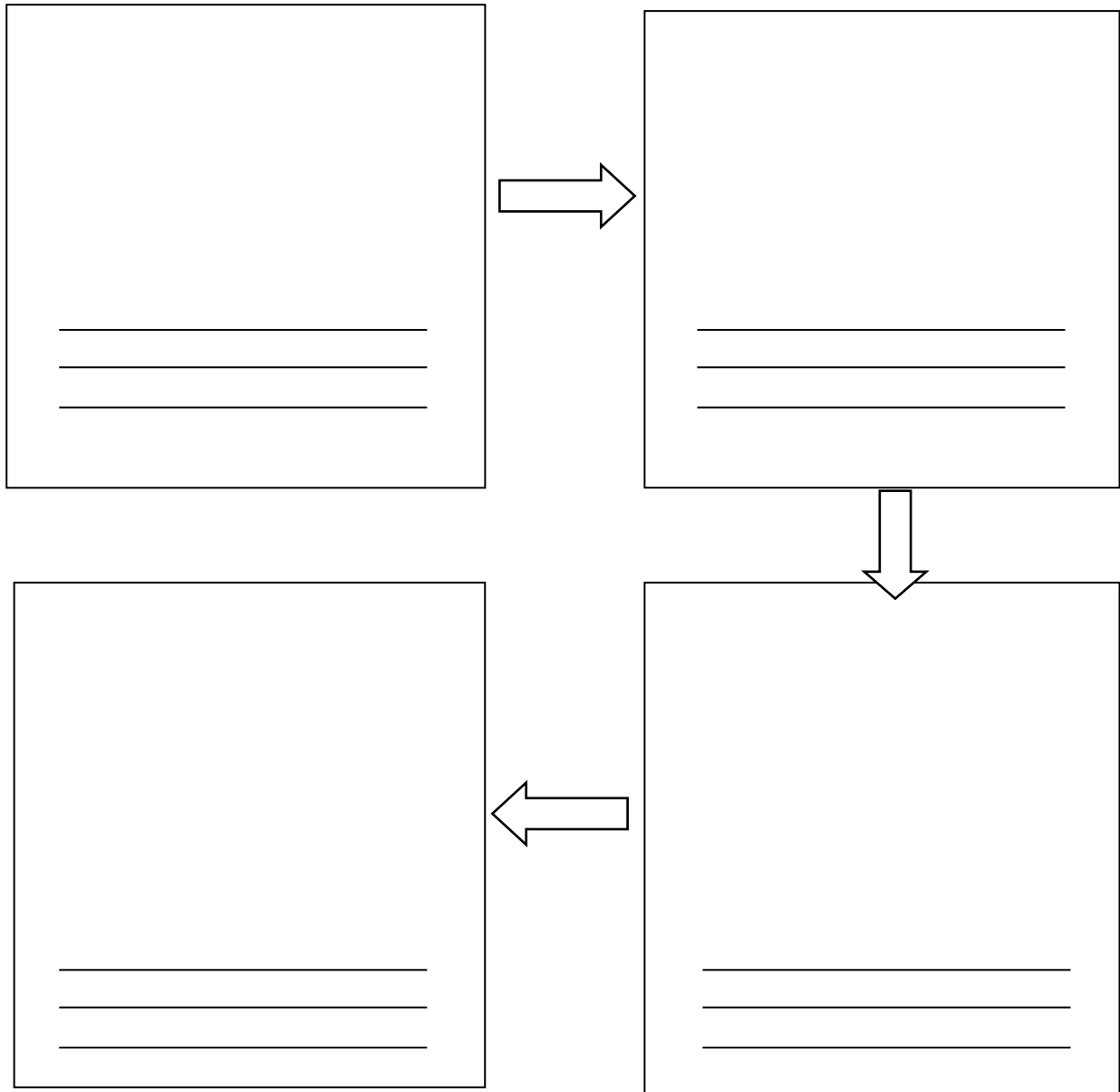
Topic	How can we explain the working principle of everyday tools?
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Working principle of a dropper

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 2. You may draw arrows with different sizes and colours to show the movements of air particles water and the direction of air pressure/force.

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ii. movements of water		iv. air pressure outside the straw (i.e. the atmospheric pressure)	

Situation: When we use a dropper, ...

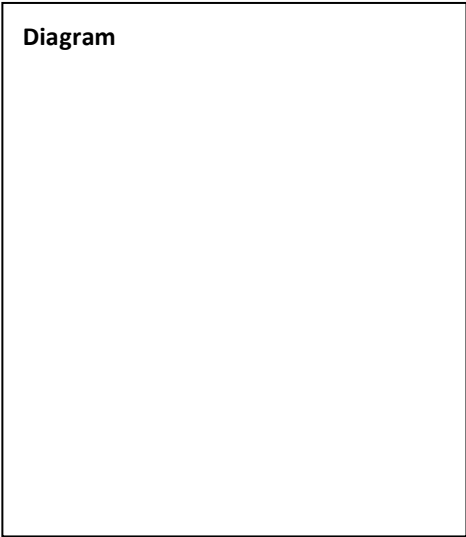




Name: () Class: Group: Date:

Topic	How can we explain the working principle of everyday tools?
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Name: () Class: Group: Date:

Topic	How can we explain the working principle of everyday tools?
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