UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

Grade 6 Elite Science Lab Assessment 1

Student Name	Shouq yaqoub alkhaaldi	Class	6 asp	Date	————

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School: **om alalaa**

- ***If completing on paper, write in dark blue or black pen.***
- ***If completing online, use font Arial 12 in black.***

The number of marks is given in brackets [ ] at the end of each question or part question.

Total Score

*****For Teacher's Use Only*****

Score		
Total	**25**	**100%**

This document consists of 6 pages. Any additional pages can be added to the document as required.

PRE-LAB:

Answer the following questions to prepare for your lab assignment.

1. **Define** *Energy* (1 point)

Click or tap here to enter text.

2. **Define** *The Law of Conservation of Energy* (1 point)

Click or tap here to enter text.

3. **Compare and contrast** *Mechanical Energy* and *Thermal Energy* (2 points)

Click or tap here to enter text.

4. **State** the three key aspects of the kinetic molecular theory. (3 point)

Click or tap here to enter text.

5. **Describe** three ways that thermal energy can be transferred (3 point)

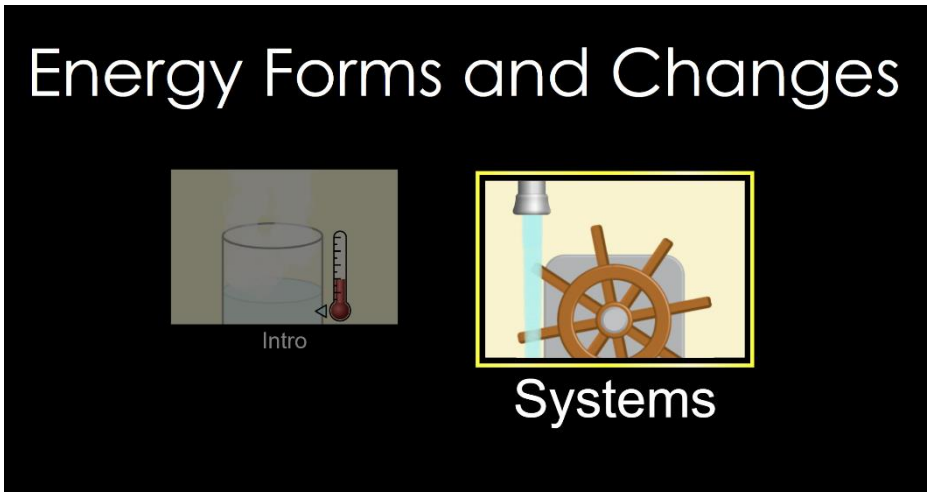
Click or tap here to enter text.

PROCEDURE AND OBSERVATIONS:

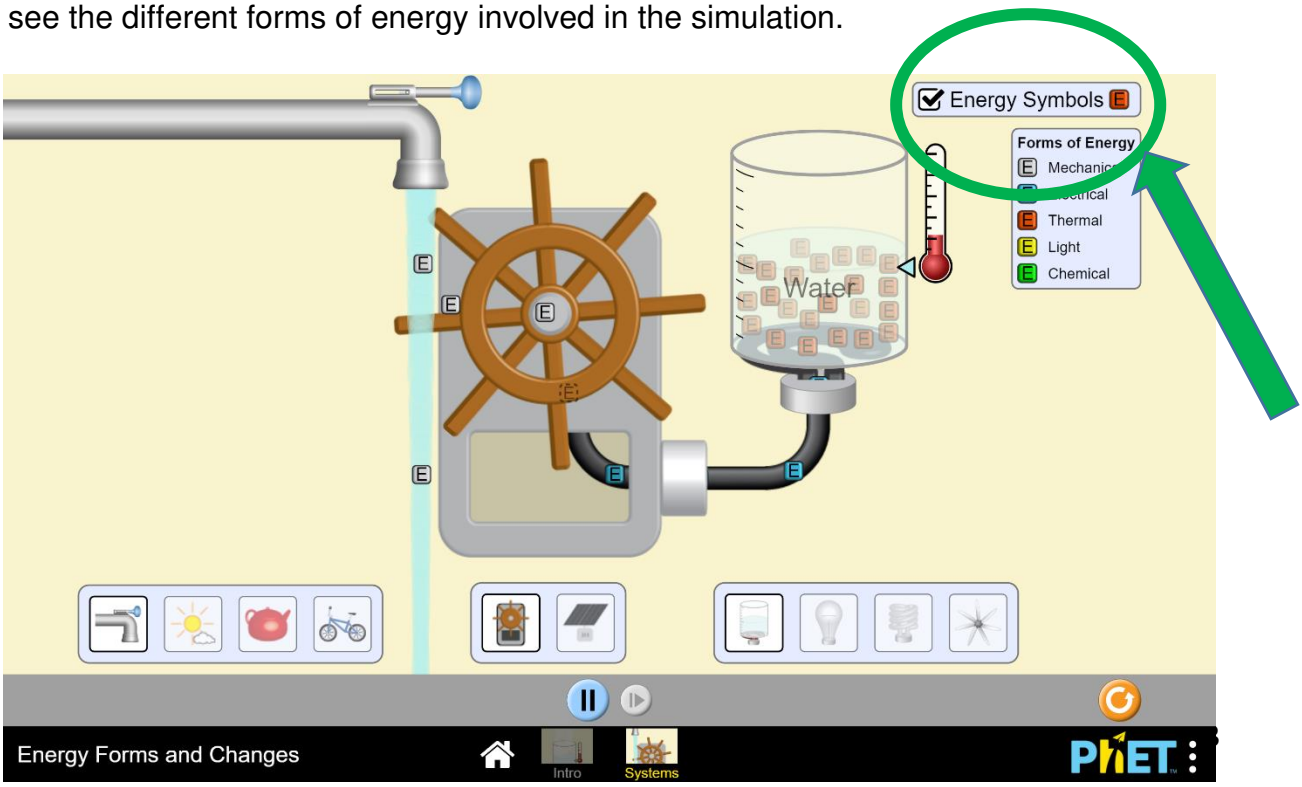
Follow the steps below.

1. Click and open the link (or copy and paste it into your web browser):
https://phet.colorado.edu/sims/html/energy-forms-and-changes/latest/energy-forms-and-changes_en.html

2. Click on the tab that says, “Systems”.



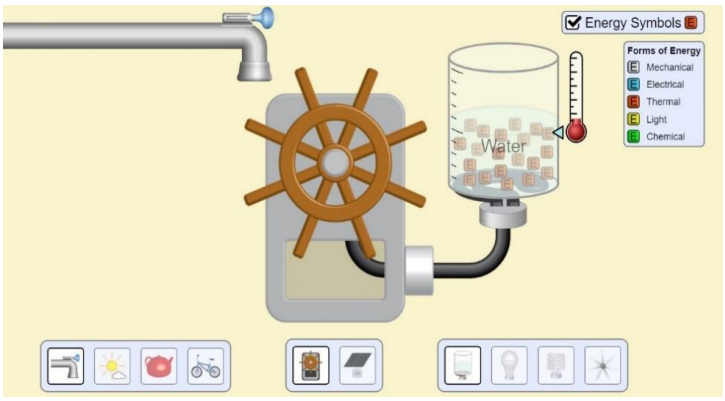
3. Turn on the energy symbols at the top right of the screen. This will allow you to see the different forms of energy involved in the simulation.



4. Arrange the simulation to create each of the different configurations pictured below. Then, run the simulation for at least 30 seconds and describe the transformations that you see.

a.

Configuration
Tap on high, water wheel, heating beaker of water.



Click or tap here to enter text.

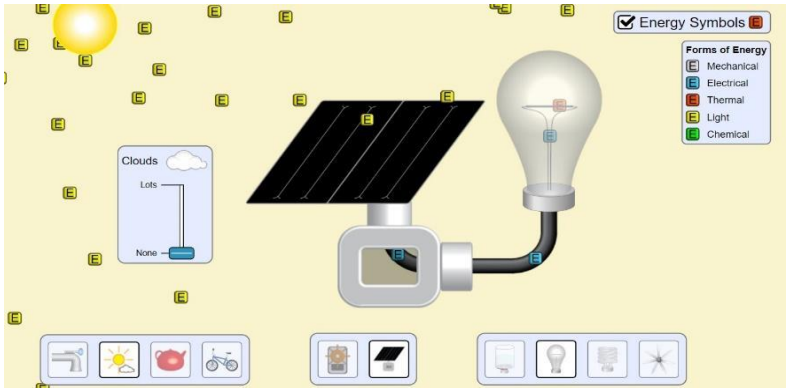
Click or tap here to enter text.

Click or tap here to enter text.

(3 marks)

b.

Configuration
Sun without clouds, solar panel, incandescent light



Click or tap here to enter text.

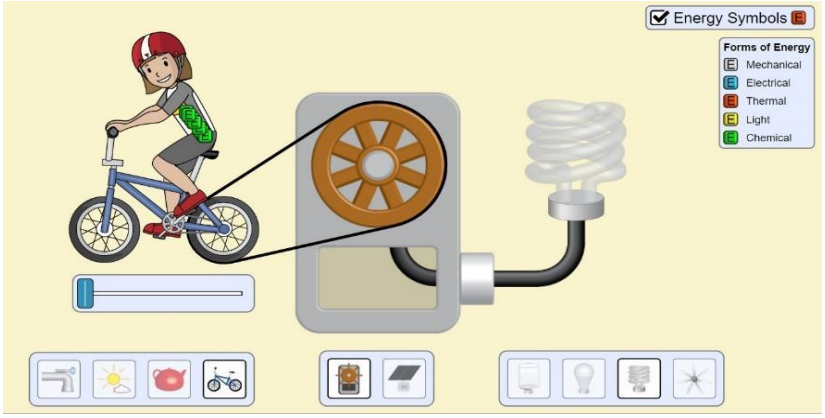
Click or tap here to enter text.

Click or tap here to enter text.

(3 marks)

c.

Configuration
Bike, water wheel, fluorescent light



Click or tap here to enter text.

Click or tap here to enter text.

Click or tap here to enter text.

Click or tap here to enter text.

(4 marks)

5a. In configuration c above, **explain** why you need to feed the person on the bike (1 point)

Click or tap here to enter text.

5b. What type of waste energy is there from a light bulb? (1 point)

Click or tap here to enter text.

5c. This simulation only shows five forms of energy. Can you list three more? (3 point)

Click or tap here to enter text