

**Warm Up – Scientific Investigation**

*Exploring the speed of change*

Read at the examples of change below. Classify them into fast (perceptible) or slow (imperceptible) change columns. Write your answers below.

An egg frying	A tree growing	Jello setting
A puppy growing up	A marshmallow toasting	A flower blooming

Slow (Imperceptible)	Fast (Perceptible)

### Mini-lesson

Exploring the speed of change

#### Keyword Review

Fill in the blank with the appropriate keyword. You might need to change the form eg. 'melt' - 'melting'

change	erosion	dissolving
imperceptible	grow	perceptible
melt	speed	

1. Fast change is normally \_\_\_\_\_.
2. \_\_\_\_\_ change is very slow.
3. The \_\_\_\_\_ of a rock is an example of slow change.
4. We cannot normally see a plant \_\_\_\_\_.
5. \_\_\_\_\_ is all around us.
6. On a very hot day we can see the change as a popsicle \_\_\_\_\_.
7. Some changes we cannot observe due to the \_\_\_\_\_.
8. Sugar \_\_\_\_\_ in water is a very fast change.

### Challenge 1

Make a working system that records a slower change

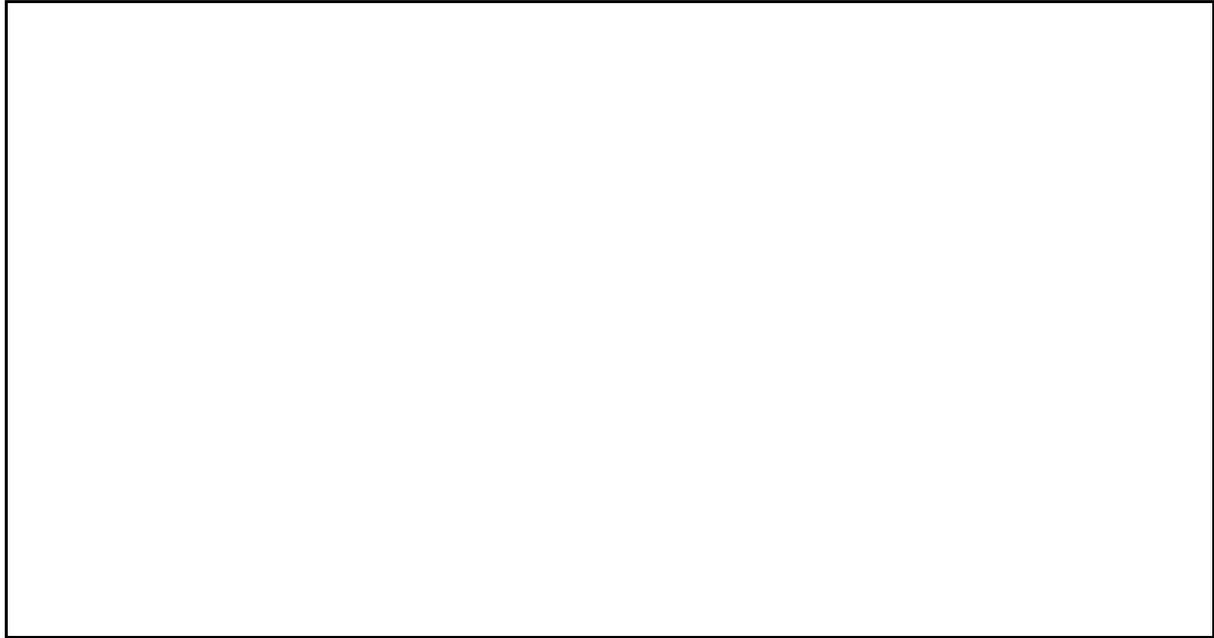
#### Plan your system

##### 1. What blocks do you need?

 TIME TRIGGER 5x	<p>The Time Trigger block allows the input to be set to a particular time, we can set the time the camera will go off within the settings of this block</p>
 CAMERA 1x	<p>The Camera block is the output within this system and will take the picture when the input tells it to. The image will be stored straight to the devices folder for pictures</p>
 INTERVAL 1x	<p>The Interval block allows you to send a signal at any desired time interval, e.g. every 5 minutes</p>

**2. Sketch your plan:** Think about the SAM system you want to create and use the space below to draw it out.

- Which are your inputs and outputs? (*Remember inputs on the left connected to your output on the right*)
- How will they be connected together?
- What settings do you need to edit?



### Challenge 1

*Make a working system that records slow change*

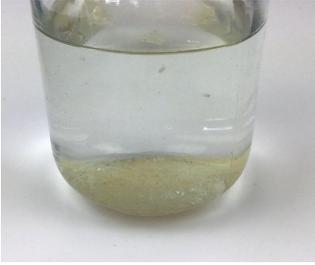
Look at the pictures and read the sentences that describe Challenge 1. What happens First? Second? Third? Write the number of the step below each picture.

Step 1 has been completed for you.

Steps	Instructions	Workspace
	After 3 minutes look at the pictures.	
Step 1.	Use the system as before.	

## Lesson 2.3 - Sow and Grow

*Student Workbook Component*

	<p>Put a small amount of sugar in the water and start the system.</p>	
	<p>Place a glass with some water in front of the camera.</p>	
	<p>Set the Interval block to trigger every 20 seconds.</p>	