











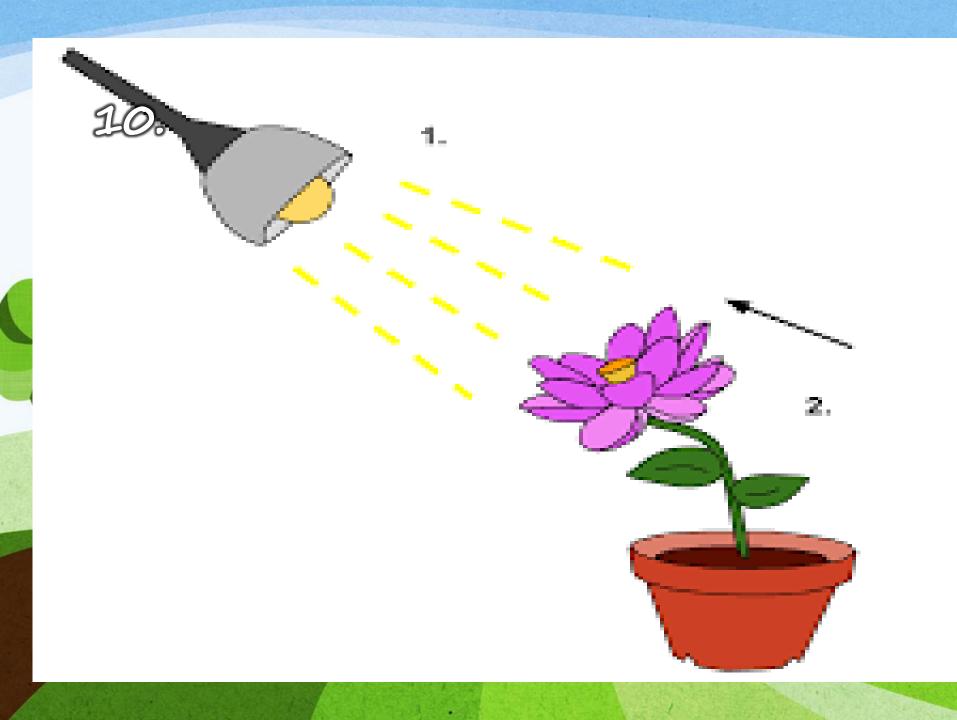


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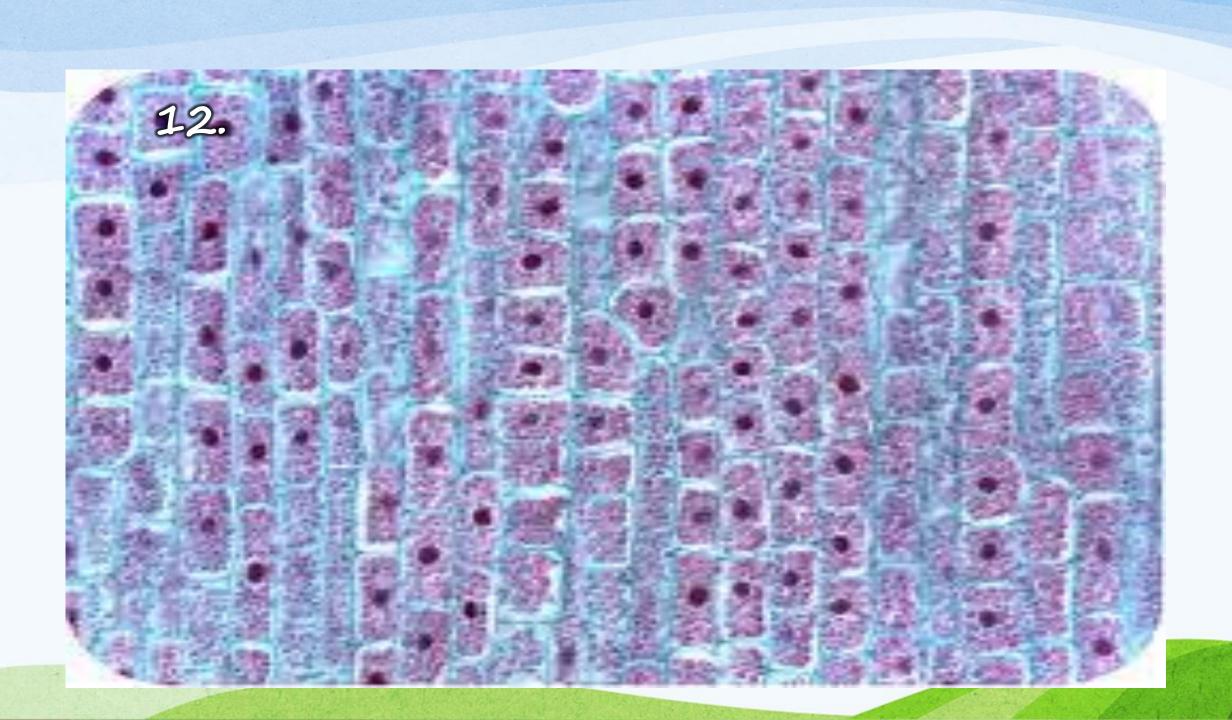














# Identify the 7 behaviours of living things from the pictures below. or each picture, write why you think it is showing a trait of a living thing.

























#### All Living Things...

- 1. Are made up of cells.
- 2. Respond to environment/stimuli.
- 3. Need energy.
- 4. Move (at a cellular level).
- 5. Grow.
- 6. Reproduce.
- 7. Eliminate waste.

#### Living Things

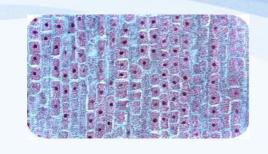
- Living things can survive in almost any type of environment.
- All living things have special features that help them survive in their environment.

## Honey Mushroom – largest living thing on Earth

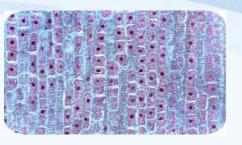


### Rhinoceros Beetle – strongest living thing on Earth



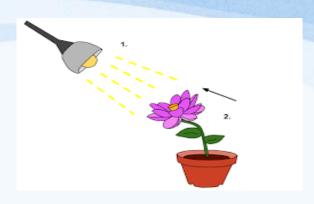


- 1. Living things... are made up of cells.
- · Cells are the basic unit of life
- Ex. Unicellular organisms made up of one cell
  - Bacteria
- Ex. <u>Multicellular</u> organisms made up of <u>more</u> than one cell
  - · Human being



- · More than half of all the cells in the body are bacteria.
- · Majority are found within the digestive tract.
- · Billions of bacterial cells live on the skin.
- · Humans have about 37 trillion cells.
- Most of the cells in your body are replaced every <u>7-</u> <u>10</u> years.
- Some white blood cells last only two days.
- · Cells in your eyes will last your entire life.

- 2. Living Things... respond to environment/stimuli.
- Anything that causes a <u>living thing</u> to <u>respond</u> is called a <u>stimulus</u>.
- · Ex. Feelings of hunger and thirst
- Ex. Dog flicks up ears in response to noise



- Pupils <u>dilate</u> and <u>constrict</u> in response to light.
- Hibernation and shedding of fur are a response to temperature change.
- · Eyes blink in response to dryness.



- 3. Living things... need energy.
- To <u>respond</u> to the environment, living things require <u>energy</u>.
- Living things have <u>different ways</u> of getting energy.
- Ex: <u>food for humans, carbon</u> <u>dioxide/water/sunlight for plants.</u>



- Plants prepare their own food by the process of photosynthesis.
- · Animals cannot prepare their own food and depend on plants and animals for their food.
- Ingestion → Digestion → Absorption →
   Assimilation → Egestion





- 4. Living things... move (at a cellular level).
- · All living things move in some way.
- This may be obvious (<u>animals walking</u>) or less obvious (<u>plants that move towards the sun</u>).
- A <u>microscope</u> may be needed to observe movement at a <u>cellular</u> level.





- Humans are rare in the world of mammals because we are <u>bipedal</u>.
- · Squirrels can walk upside down.
- · Water spiders can walk on water.

- 5. Living things... grow.
- Growth is a result of cells in your body increasing in number.
- · Cells are continually being replaced.



• Fastest growing organism is a type of algae that can grow at a rate of <u>60cm</u> in one day.

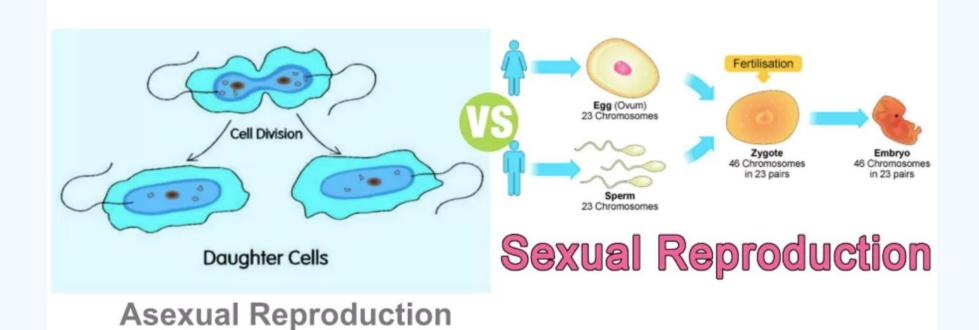


· Growth is supported by good <u>nutrition</u>, enough <u>sleep</u> and regular <u>exercise</u>.



- 6. Living things... reproduce.
- A way for living things to <u>replace older</u> individuals that die.







- 7. Living things... must get rid of wastes.
- What living things consume are not always used by the body and therefore creates <u>waste</u>.
- Animals produce waste such as <u>carbon</u> <u>dioxide</u>, <u>urine</u> and <u>feces</u>.



- · Human feces is mostly bacteria.
- Feces is brown due to <u>dead red blood cells</u> and <u>bile</u>.
- · There is a Bristol Stool Scale
- · Wombat's feces come out in cube shapes



- · Cat urine glows under black light.
- The world record for the longest pee is <u>8.5</u> minutes
- · Urine can be a window to your overall health
  - Smell of ammonia → <u>dehydration</u>
  - Musty smell → <u>liver disease</u>
  - Foul smell → bladder infection
  - Sweet smell → <u>diabetes</u>



- · Gum and soda make you pass gas more
- Passing gas is a result of a healthy, complex ecosystem in your <u>intestines</u>
- · Why do we pass gas?

#### On your sheets...

While watching the video, find examples of how each characteristic is demonstrated.

- 1. Are made up of cells.
- 2. Respond to environment/stimuli.
- 3. Need energy.
- 4. Move (at a cellular level).
- 5. Grow.
- 6. Reproduce.
- 7. Eliminate waste.