Science introduction

Scientists are detectives!

~~Paired: What do detectives do?~~

They ask questions!

For Scientists, just like detectives, there are many ways to explore the answers to our questions.

Can you think of any?

Apr 18-12:55

Survey (count the number of things)

Investigation over time

Classifying (putting things into groups)

Do a test

Secondary source (book or internet)

Pattern seeking (find a relationship between things)

Apr 18-12:55

Our new science topic for this half term is...

Living things and their habitats

Apr 18-12:55

What questions do you have about **Living things and their habitats**?

Gather questions as a whole class and decide which type of enquiry it is.

~~Survey~~ ~~**Classifying**~~ ~~Do a test~~ ~~Investigation over time~~

~~Secondary source (book or internet)~~ ~~Pattern seeking~~

Apr 18-12:57

LQ: Can I understand the difference between things that are living, dead and have never lived?
Success Criteria:
Have I...
+ Sorted things that are living, dead and have never lived?
+ Explained the difference between things that are living, dead and have never lived?
+ Added my own ideas about things that are living, dead and have never lived?

Today we are going to learn about what makes some things **living**, some things **dead** or some things that have **never lived**.

Can you spot which is which?

We are all alive!

All living things do certain things to stay alive.

These are called **life processes**.

Paired talk: What do you think the life processes are?

Let's find out!

http://www.bbc.co.uk/guides/zs73r82

May 26-13:35

Life processes of living things

The **processes** that all living things need are to:

Move
Respire
Sense
Nutrients
Excrete
Reproduce
Grow

(MRS NERG)

May 26-13:35

Living Things

Move

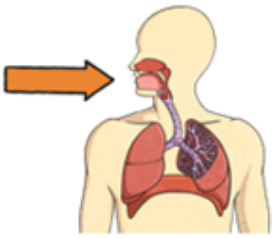
Animals have different ways of moving.

Plants turn towards the sun and some open and close their petals at different times of the day.

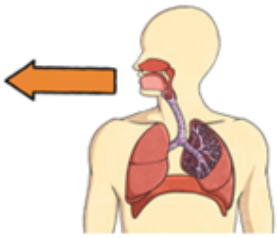
Living Things

Respire

Animals use oxygen in the air to help turn their food into energy.



inhale (breathing in)



exhale (breathing out)

Plants also respire by taking in oxygen and giving out carbon dioxide.

O_2  CO_2

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Living Things

Respond to Stimuli

(Sense)

Animal can escape from danger and find safety.

Plants can repair themselves when they are damaged.

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Living Things

Take on Nutrients

Animals eat and digest food.

Plants make their own food using the sun's light, carbon dioxide gas and water from the ground. This is called photosynthesis.

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Living Things

Excrete Waste

Plants and animals both get rid of excess gas and water.

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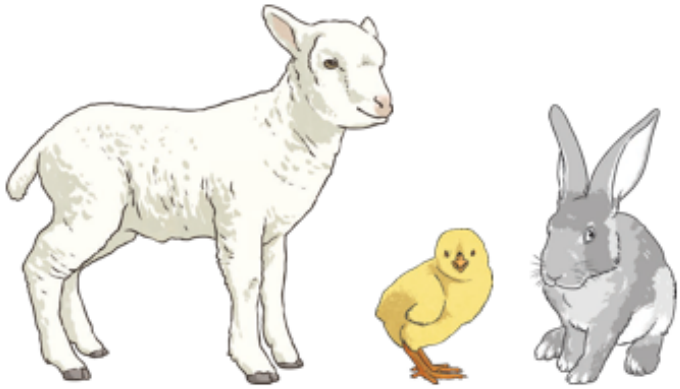
Living Things

Reproduce

Animals lay eggs or have live babies.



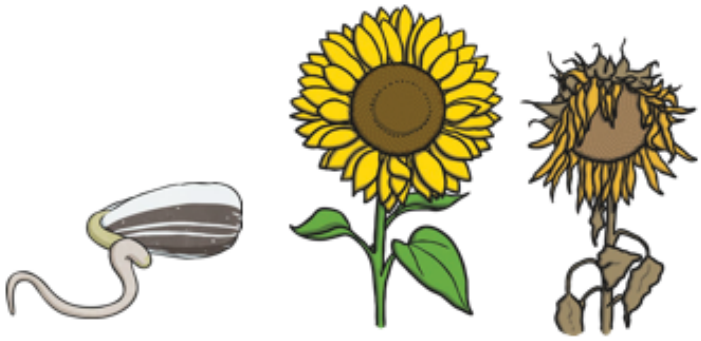
Plants make seeds that can grow into new plants or grow new plants called plantlets.

Living Things

Grow

Animals grow from babies to adults.

Seeds and plantlets grow into plants.



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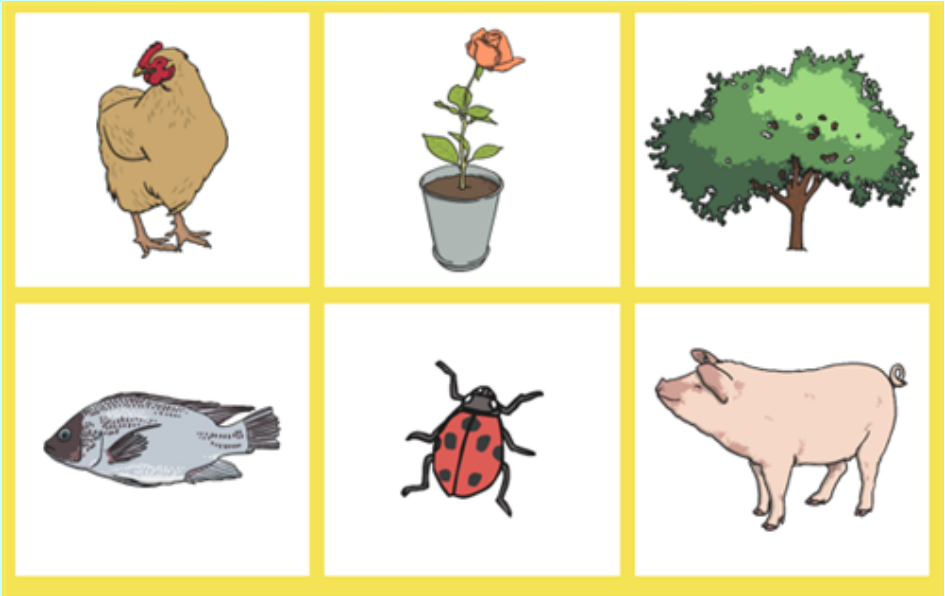
Paired talk: What do these things have in common?



They all MOVE, RESPIRE, SENSE, need NUTRIENTS (food), EXCRETE (get rid of waste), REPRODUCE and GROW.

~~**They are all Living Things.**~~

Paired talk: What do these things have in common?

~~Ask your partner these questions:~~

1. Can it move?
2. Can it grow?
3. Does it need nutrients (food) to stay alive?
4. Can it reproduce (make more of its kind)?

They are all Dead things that were once alive and performed LIFE PROCESSES (MRS NERG) but are now dead.

Paired talk: What do these things have in common?

1. Can it move?
2. Can it grow?
3. Does it need nutrients (food) to stay alive?
4. Can it reproduce (make more of its kind)?

These things have ~~Never Lived~~ because they have never performed any of the LIFE PROCESSES (MRS NERG).

May 26-13:35

Main Task:

Living	Dead	Never lived

Explain why you have sorted the things where you have. (use MRS NERG to help you).

Living: _____

Dead: _____

Never lived: _____

Can you think of your own: Living:_____ Dead:_____ Never lived_____

~~Ask yourself these questions when you sort the cards.~~

1. Can it move?
2. Can it grow?
3. Does it need nutrients (food) to stay alive?
4. Can it reproduce (make more of its kind)?

~~Challenge Questions:~~

1. Does it need air/oxygen (respire)?
2. Does it sense what is happening around it?
3. Does it get rid of waste (excrete)?

Plenary:

I am fluffy, I have four paws and a tail.

I can't move or breath.

What am I?

Am I Living, Dead or Never been alive?