

Brontosaurus Learning

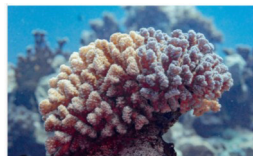
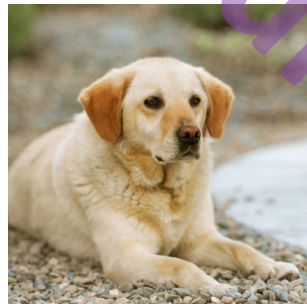
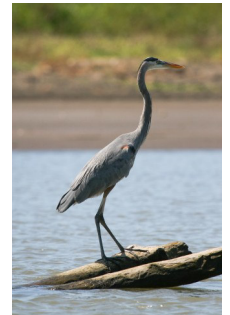
Making science fun!

An Experiment about

Living Things

What Is Alive?

Circle the things that are ALIVE



TEACHING NOTES:

Brontosaurus Learning Experiment:
Living Things LT01

Topic: Living Things

Key Concepts:

- ♦ Identifying the characteristics of living things.

Resources:

- Investigation Record IR01– one copy per student
- Experiment Description Living Things LT01– one copy per student
- Examples of living and non-living things - real examples are better but photographs will do. If possible, include a real animal or two and toy versions of the same, eg snail, beetle, ant or a class pet. Make sure you include plants and maybe even a few tricky ones like coral or moss. Somewhere to record student answers, eg chalk board, butcher's paper. You will need a 2 column table to record their answers to Living and Not Living in the Heads and Tails game and another 2 column table to record "Living things:" and "Non-living things:".

Lesson Notes:

Begin by explaining to the students that not everything in the world is alive, and that today we are going to make a list of the special things that living things do that non-living things don't do.

First we are going to play a version of the game "Heads and Tails". Everybody stands up and when each item is shown the students are going to put their hands on their head if that thing is alive and on their bottom (or tail) if it is not alive. If they get it wrong, don't worry, just let them try again for the next one. Record the majority answer in the first table. It's also a great idea to place the living things in one pile and the non-living things in another pile as you go.

Now sit the class down and look again at the living things. Ask them to suggest ways that we can tell if something is alive. Repeat the process for non-living things, although you can expect that most of the answers will be simply the opposite of the living things answers (eg don't breathe). With slightly older students I would split them into small groups to complete this task. The students can now complete the worksheet that accompanies this lesson.

What should happen in this experiment, and why?

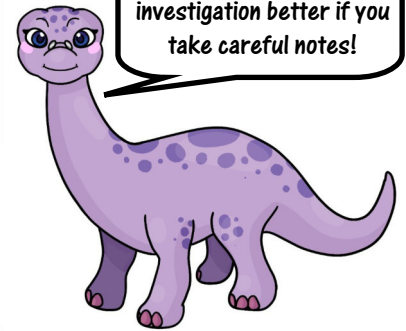
The students will be able to identify some features of living things, for example:

- "Breathe" - plants respire through their leaves
- Grow
- "Eat" - plants take on nutrients through their roots (generally)
- Reproduce
- Move—many plants adjust their leaves towards the sun for example, such as sunflowers
- Respond to stimuli—plants respond to the sun and rain, or you could use fly-catcher plants as an example.

Follow up discussion questions:

- What are the differences between plants and animals?
- Where do humans fit in? Are we living?
- How many living things can you list?

Investigation Record



Experiment Title:

Scientist (that's you!):

Materials: What will I need?

Investigation—what am I going to do in this experiment?

Diagrams are a great idea!

Hypothesis: What I think will happen:

Observation: What I SAW happen:

Diagrams are a great idea!

From my investigation I learnt:

Great work scientist!