



# King Leon is Sick!

## A Study in Humidity

# Humidity Build Lesson Plan

Unit: Science inquiry based on class pet meeting expectations from:

- Grade 1 Needs and Characteristics of Living Things
- Grade 1 Daily and Seasonal Changes
- Grade 2 Growth and Changes in Animals
- Grade 2 Air and Water in the Environment

Objective: students will use inquiry skills and knowledge of reptiles to identify why King Leon the crested gecko is sick and what changes need to be made to his environment to ensure his continued health.

# Provocation

Students had already learned a lot about crested geckos; their habitat in the wild and special adaptations they have. Students were given the information on the right and asked to share ideas as to the cause.

Patient: King Leon ♥

Symptoms: lost weight, skin wrinkly

Diagnosis:

Treatment:

# Group Brainstorm

## What is wrong with King Leon?

~~temperature? 73 °F~~  
~~water to cool him down?~~

~~injured?~~

~~disease?~~

humidity  
32%?  
70-80% 50-60%

~~sleeping enough?~~

~~stress from classroom?~~

not enough rain?

~~eating enough?~~

~~proper healthy food?~~

~~need more exercise?~~

Students brainstormed causes of King Leon's symptoms. As a group we discussed and researched (if needed) each one. We identified the most likely cause of his symptoms. We surmised that because it was winter time, the classroom heat was affecting the humidity of his tank.

# The Task

We determined the diagnosis and possible treatments. Students were challenged to come up with ways to solve the problems and treat King Leon so that his tank could remain in the classroom.

Part of the challenge is that crested geckos require a daily cycle of humidity from 70-80% at night with a drop to 50-60% during the day. This keeps them hydrated but prevents mould and skin rot. Owners normally spray tanks 2-3 times a day but this was not possible with King Leon being at school Monday to Friday.

Patient: King Leon ❤️

Symptoms: lost weight, skin wrinkly

Diagnosis: dehydrated

Treatment: drink more water,   
raise humidity in habitat 

# The Build

## Plans to Increase Humidity



Students made written plans to maintain humidity in the cage overnight. They made materials lists and items we did not have at school were purchased.

Then they built!

Some students did extra research at home and/or brought in supplies I was unable to provide.

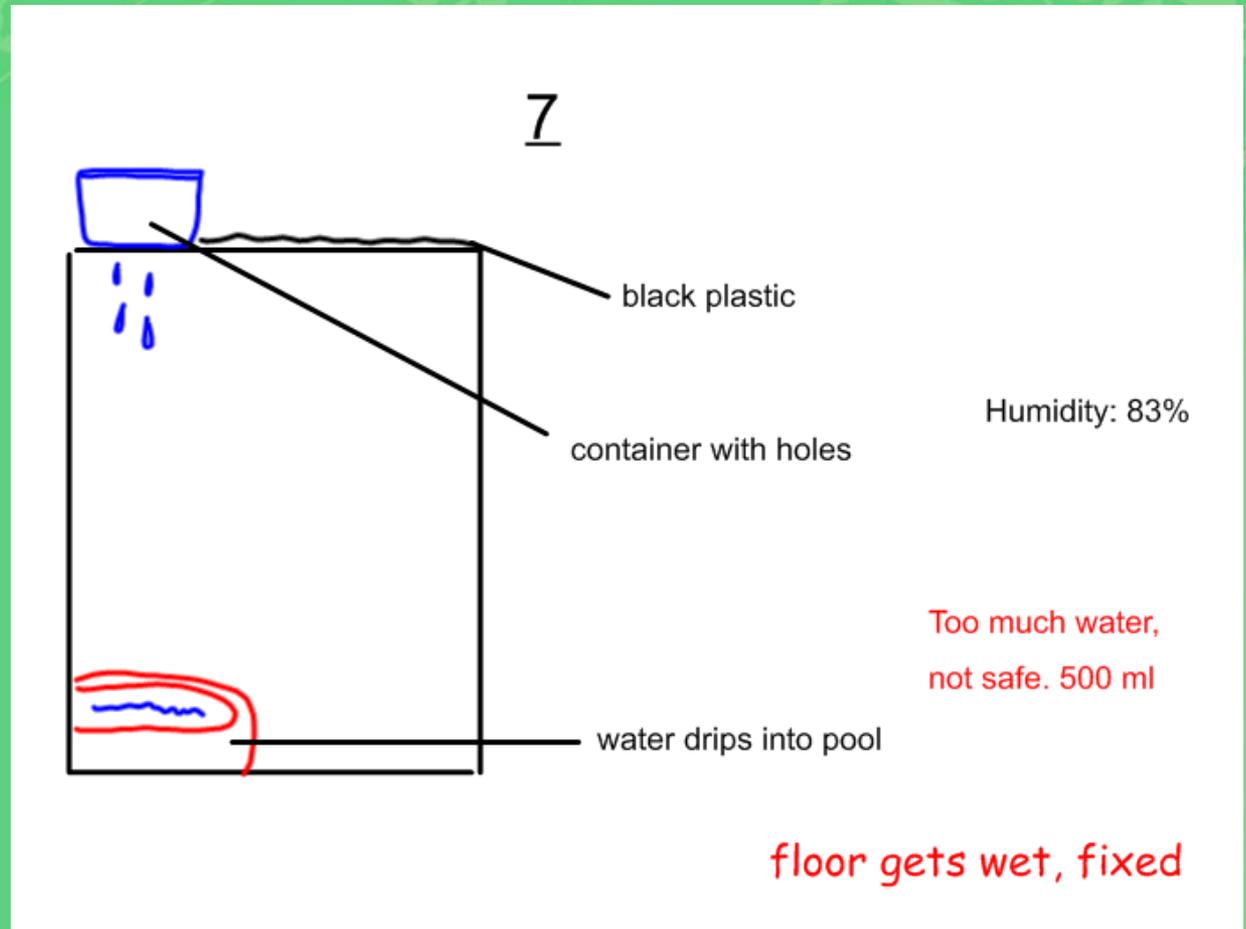
They were so excited to test their creations!

# Implementation

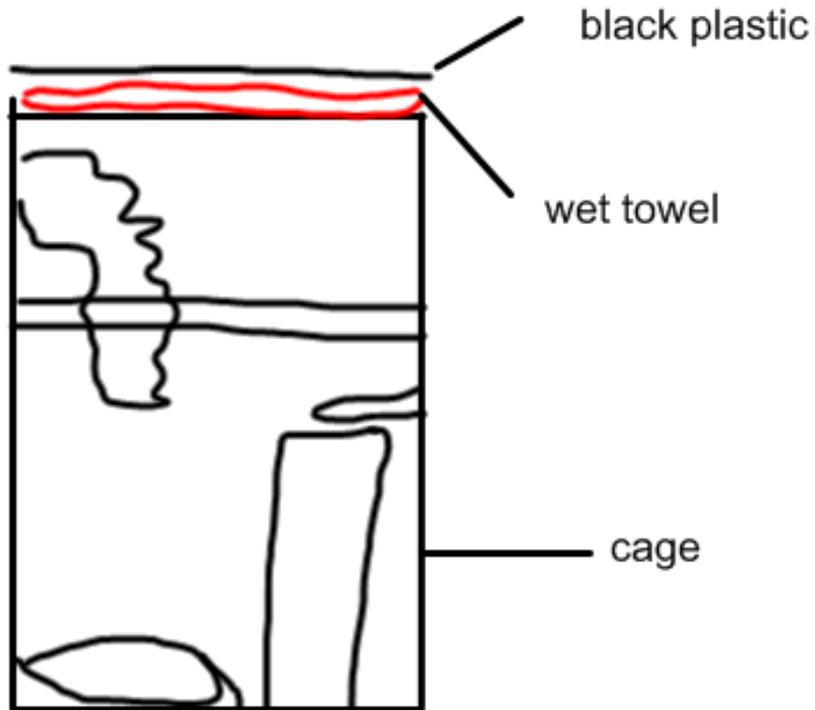
- We spent two weeks testing the builds that made it to fruition. Some students' plans did not work out so they volunteered to become a support team for other students' builds.
- During this time, King Leon was at home in his weekend tank. Progress was measured with the digital thermometer/hygrometer in the tank.

# Consolidation

Each afternoon before home, a humidity build was set up in the cage. Students were eager each morning to come in and record the humidity levels. The red text shows the problems they identified with each build. Most plans were variations of 4 main ideas, included here.



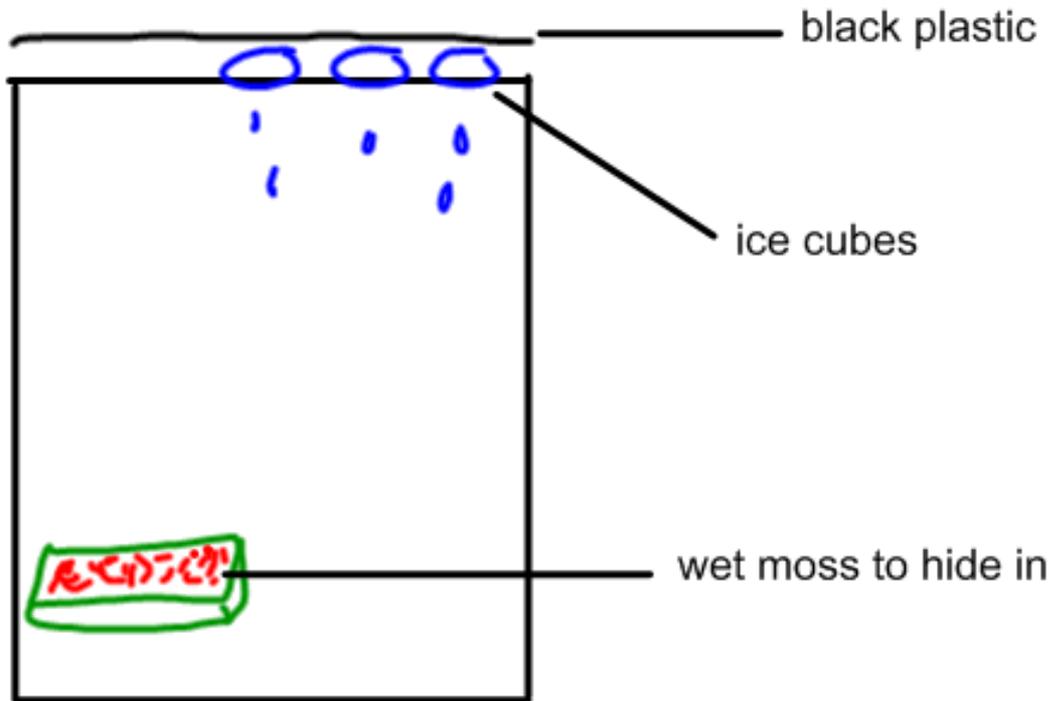
18



Humidity: 88 %

towel would need to be washed

20



Humidity: 83%

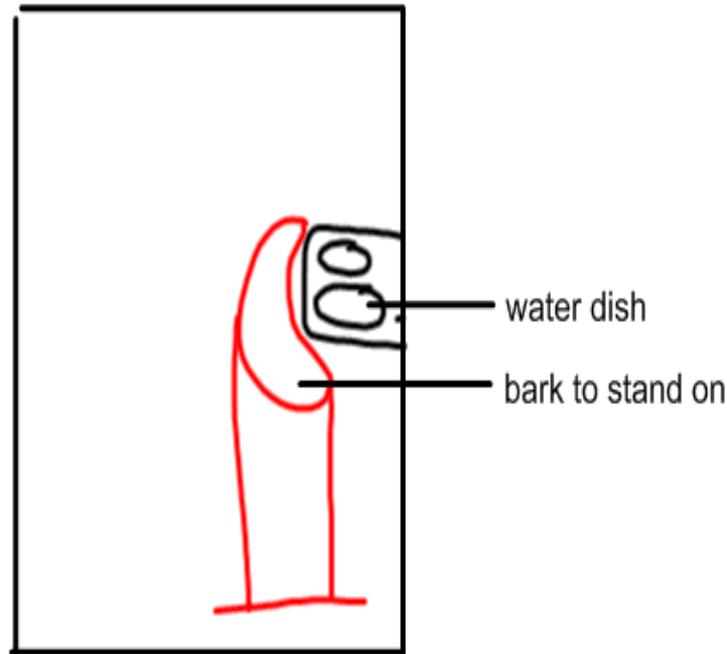
make ice, moss has to be replaced, buy more

# Implementation

We reviewed all ideas and students were challenged to identify the solution that would be the most efficient, least expensive, and easiest to maintain.

We ended up choosing to add a basket of wet moss, use a dripping container of water, and put a fresh water bowl with his food (geckos generally drink dripping water off the leaves when the tank is sprayed).

4



He will always have fresh water to drink.

# Summary

Student engagement level was at an all time high with our humidity build. They were so motivated to be able to solve a real life problem that held meaning for them, and they were so proud when their creations actually worked!

Students improved problem solving and observations skills during this study.

They were supportive of others' ideas and worked well in teams. Everyone was invested in finding a solution. King Leon was able to return to our class for the remainder of the winter. When spring came, the humidity level in the class increased and the extra methods were no longer needed; their disappointment was clear. I assured them we would need to use their inventions again next winter!

