Science Unit plan- Grade 1: Characteristics of Living Things

# Lesson 1:

Outcome:

* 1-1-01 Use appropriate vocabulary related to their investigations of characteristics and needs of living things.

Activate:

* Bring in various items and get students to guess which are living and non-living
* Break items into categories of plant, animal and human. Introduce these as important vocabulary words

Acquire:

* Discuss what is required for all living things (air, water, and food)(pictures of needs and wants)
* Go through pages 1-3 of work book and read as a class

Apply:

* School yard search for living things (pg. 5). Break students up into 2 groups(1 per teacher)
* Come back as a class and compare. Complete page 5

Extras:

* Take page 5 home for homework if not finished
* Homework: page 25

Assessment:

* Page 5 and 25

Materials needed/things to prepare:

* variety of living and non living things(picture, real objects, words)
* Workbooks
* Word wall words with pictures/word wall
* Pictures of needs vs. wants

# Lesson 2:

Outcome:

* 1-1-02: Identify major parts of the human body and describe their functions.

Activate:

* Vocabulary game: students are in groups of three and each groups gets three picture flash cards(human, plant animal) and then teacher says/show word/picture and the group decides which flash card to show (use to assess vocabulary and eventually this could turn into a race)

Acquire:

* Discuss if humans are living/non living and what they need to survive (food, water and air) Review from lesson 1
* Discuss body parts using page 6

Apply:

* Play Simon says

Extras:

* You could add to simon says function that the body part does. An example is the teacher says “I walk with my…”, “I see with my…”, “I hear with my…”, “I eat, speak, smile with my…”

Assessment:

* Formative of vocabulary during Simon says and vocab game

Materials needed/things to prepare:

* Flash cards(human plant and animal x 10)
* Clues cards for vocab game
* Work books

# Lesson 3:

Outcome:

* 1-1-02: Identify major parts of the human body and describe their functions.

Activate:

* Hands on science page, 32 color and label “Their body”

Acquire:

* Body bingo

Apply:

* Test on page 7 of workbook(students are require to label the boy without the aid of page 6) For each space on the page say/write 3 vocab words on the board and the student must pick the right one.

Extras:

Assessment:

* Page 7

Materials needed/Things to prepare:

* Bingo cards/clues
* Prize for bingo
* Photo copy pg. 32 of Hands on Science
* Workbook
* Template of “Their Body”

# Lesson 4:

Outcome:

* 1-1-04: Identify and appreciate variations that make each human unique.

Activate:

* Discuss the different variations among humans.
* Show 2 pictures of people who are very different and see how many differences can be found
* Then discuss the similarities and how everyone is beautiful and unique!(Venn Diagram)

Acquire:

* Show pictures of different people with different color of eyes. We will then graph as a group the different variations of eye colors that we see.

Apply:

* We will show pictures of different people with different color of hair. The students will then graph, on their own, the frequency of each hair color. Have students color one square on the graph when they see a new picture.

Assessment:

* Mark students graphs out of 3(are the numbers correct, slightly inconsistent, or all over the map)

Materials needed/things to prepare:

* Pictures of 2 very different people
* Pictures of eyes and hair
* Graph paper for them, one for eyes and one for hair
  + Graph template

# Lesson 5:

Outcome:

* 1-1-03: Identify and describe common characteristics of humans and other animals they have observed.

Activate:

* Have class discussion using page 8 and 9 to describe common characteristics of humans and animals. (most importantly; how they are both living)

Acquire:

* Have a large picture of an elephant and a human.
* Using a Venn Diagram compare the two

Apply:

* Put the students in groups of 3 and compare a human and tiger. (students must have three items in each part of the Venn Diagram and they can draw matching pictures)

Extras:

* Homework: page 10

Assessment:

* Homework page 10
* Venn diagram of tiger verse human
* Group participation

Materials needed/things to prepare:

* Large picture of human and elephant
* Picture of human and tiger x 10
* Venn diagram template

# Lesson 6:

Outcome:

* 1-1-06: Observe and identify similarities in life processes between themselves and other living things
* 1-1-07: Recognize that plants, animals, and humans, as living things, have particular needs.

Activate:

* Discuss the similarities between different kinds of living things in terms of life processes. Example: humans, plants, and animals need air, water, food; reproduce, grow ect.
  + Talk about what pets do and humans do (grow, eat, drink, have babies, move)

Acquire:

* Do page 13-14 in work book as a class
* Predict what will happen if the 3 necessities are not present.
* Follow by doing page 11 in work book

Apply:

* Plant seeds for an experiment: each student plants one seed; ¼ will get sunlight, water and air, ¼ will gets everything but sunlight, ¼ will get everything but air. ¼ will get everything but water.

Extras:

* Homework: page 12

Assessment:

* Mark page 11 and 12
* On going assessment of the experiment will take place till the end of the unit

Materials needed/things to prepare:

* Workbook
* Seeds
* Soil
* Planters
* Water
* Bags/saran wrap
* Experiment paper

# Lesson 7:

Outcome:

* 1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant.

Activate:

* Observe the plants and talk about what we see!
  + Talk about what each plant would need to recover
  + Talk about taking care of plants

Acquire:

* Talk about taking care of animals(using picture of someone caring for pets)

Apply:

* Pick one pet/animal have them write and draw pictures of at least 5 things you should have to take care of their pet.
  + Go over a bunch of options of animals and how they have special needs

Extras:

* Homework page 24

Assessment:

* Assess the journal, 5 items is proficient, 3-4 items is intermediate, 1-2 is beginner.
* Homework page 24

Materials needed/things to prepare:

* Journal templates
* Taking care of pet pictures

# Lesson 8:

Outcome:

* 1-1-09: Compare ways in which humans and other animals meet their needs.

Activate:

* Find a cool video of animals in the wild.

Acquire:

* Discuss how humans and animals differ when it comes to meeting needs.
  + How are they the same?
  + Example: Humans can use tools and animals can’t.
    - We both use senses and locomotion but in different ways
* Go through pages 17-21 as a class

Apply:

* Do page 16 of workbook

Assessment:

* Page 16

Materials needed/things to prepare:

* Video
* Book computer lab rental

# Lesson 9:

Outcome:

* 1-1-10: Describe how humans and other living things depend on their environment to meet their needs.

Activate:

* Compare habitats showing a video

Acquire:

* Discuss different habitats and the animals that live in them. Show them a few examples by placing animals in their correct habitats.

Apply:

* Matching worksheet

Extras:

* Vocabulary word search

Assessment:

* Matching worksheet

Materials needed/things to prepare:

* Picture of Habitats and their animals
* Matching worksheet
* Video
* Book computer
* Vocabulary word search

# Lesson 10:

Outcome:

* 1-1-11: Design a representation of an environment that meets the needs of a Thai animal.

Activate:

* Discuss different Thai environments (jungle, under the sea). What kind of animals live there, and what has to be in these environments for the animals to survive?

Acquire:

* Do page 60 of hands on science

Apply:

* Then get the students to create a diorama of the environment they designed in the hands on science.

Assessment:

* Rubric for assessment:
  + Takes part in brainstorming
  + Helps to develop criteria
  + Uses resources to gather information
  + Constructs the representation
  + Can identify the criteria in his/her diorama

Materials needed/things to prepare:

* Page 60 of HOS
* Materials to make diorama

# Mini Lesson 11:

Outcome:

* 1-1-12: Identify hobbies and jobs that require knowledge of the needs of living things.

Activating:

* Discuss different hobbies and jobs you could have to take care of living things (gardener, zoo keeper, pet shop owner, doctor, teacher, nurse)

Apply:

* Write a journal entry on one of the occupations. Includes a picture and description of the occupation

Assessment:

* Journal entry

Materials needed/things to prepare:

* Journal template
* Pictures of occupations

# Lesson 12:

Outcome:

* 1-1-13: Develop, implement, and evaluate personal and group action plans that contribute to a healthy environment for themselves and for other living things.

Activate:

* Watch a video of how littering and pollution are effecting the planet and living things

Acquire:

* Discuss and come up with ways we could help the planet

Apply:

* Come up with something we could do as a class to help the environment
  + Create a recycling box for paper and plastic in the classroom

Assessment:

* Participation

Materials needed/things to prepare:

* Video
* Book computer
* Materials to make recycling box

# Lesson 13: Wrap up

Outcome:

* 1-1-14: Show respect for living things in their immediate environment
* 1-1-15: Recognize that some information they receive about living things is not scientific in nature.

Assessment:

* 1-1-14: taking care of plant
  + Page 39: when plant is growing
  + Page 42: first box, when everyone’s plants are up
  + Page 42: second box, a week later
* 1-1-15: read jack and the bean stock or three little pigs and discuss what is real and what is not.
  + Participation marks

Materials needed/things to prepare:

* Workbook
* Book to read