Teacher: Core Science Grade K Year: 2010-11

Course: Science Grade K Month: All Months

### S | SPACE:CYCLES (SEASONS)

| e                     | STATEL.CI           | CLLD (BLI                          | 150115) |                        |             |         |           |  |
|-----------------------|---------------------|------------------------------------|---------|------------------------|-------------|---------|-----------|--|
| p<br>t                | Essential Questions | Content                            | Skills  | Vocabulary             | Assessments | Lessons | Resources | Standards  |
| e<br>m<br>b<br>e<br>r |                     | Fall<br>Winter<br>Spring<br>Summer |         | weather<br>temperature |             |         |           | 4.1.1a.4- weather changing from day to day and through the seasons |

LIFE CYCLES: APPLES

| Essential Questions | Content                                | Skills   | Vocabulary              | Assessments | Lessons | Resources | Standards  |
|---------------------|--|--|-------------------------|-------------|---------|-----------|--|
|                     | Growth<br>Parts of an<br>apple<br>Uses | General Skills: Sequence the growth of an apple tree-seed, tree, apple General Skills: Verbally identify parts of an apple-skin, flesh, core, seeds, stem General Skills: List the | apple<br>seeds<br>flesh |             |         |           | 4.4.1a- Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death. 4.4.1b-Each |

|                |               |              | $\overline{}$ |
|----------------|---------------|--------------|---------------|
|                | different     | kind of plan | t             |
|                | types of      | goes         |               |
|                | apples (red,  |              |               |
|                | yellow,       | own stages   |               |
|                | green) and    | of growth    |               |
|                | their uses    | and          |               |
|                | (pies,        | developmen   | ıt            |
|                | sauce,        | that may     |               |
|                | juice, cider, |              |               |
|                | etc)          | seed, young  |               |
|                |               | plant, and   |               |
|                |               | mature       |               |
|                |               | plant.       |               |
|                |               | 4.4.1d-Life  |               |
|                |               | cycles of    |               |
|                |               | some plants  |               |
|                |               | include      |               |
|                |               | changes      |               |
|                |               | from seed to | )             |
|                |               | mature       |               |
|                |               | plant.       |               |
|                |               | 4.4.2a-      |               |
|                |               | Growth is    |               |
|                |               | the process  |               |
|                |               | by which     |               |
|                |               | plants and   |               |
|                |               | animals      |               |
|                |               | increase in  |               |
|                |               | size.        |               |
| $\overline{a}$ |               |              |               |

## O LIFE CYCLES: PUMPKINS

| c<br>t<br>o | Essential<br>Questions | Content | Skills  | Vocabulary | Assessments | Lessons | Resources | Standards   |
|-------------|------------------------|---------|---|------------|-------------|---------|-----------|---|
| b<br>e<br>r |                        | Uses    | General Skills: List the different uses for pumpkins (pies, bread, jack 'o lanterns, etc) | flesh      |             |         |           | 4.5.3a- Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good |

health. N FORCES AND MOTION: MAGNETISM o v Essential Vocabulary Assessments Lessons Resources Standards Content Skills **Ouestions** e m 4.5.1e-Attract/Repel General attract b Skills: Magnetism is repel e Predict if a force that magnet r objects may attract or will/will repel certain materials. not be 4.3.1e-The attracted material(s) an by magnets General object is Skill: made up of determine Show objects that some specific are/not properties of the object attracted (sink/float, by magnets conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers. thermometers, balances, magnets, circuit testers, and graduated cylinders. 4.3.1f-Objects and/or materials can be sorted or classified according to their properties. FORCES AND MOTION:BUOYANCY

| Essential Questions | Content    | Skills   | Vocabulary    | Assessments | Lessons | Resources | Standards  |
|---------------------|------------|--|---------------|-------------|---------|-----------|--|
|                     | Sink/Float | General Skills: Predict which objects will/not float/sink General Skills: Show objects that float/sink | sink<br>float |             |         |           | 4.3.1e-The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit testers, and graduated cylinders. 4.3.1f-Objects and/or materials can be sorted or classified according to their properties. |

# CHARACTERISTICS OF LIFE FUNCTIONS: POLAR ANIMALS

| u        | Essential Questions | Content | Skills | Vocabulary                | Assessments | Lessons | Resources | Standards   |
|----------|---------------------|---------|--------|---------------------------|-------------|---------|-----------|---|
| a r<br>y |                     | *Where  |        | polar<br>blubber<br>adapt |             |         |           | 4.1.1a-Animals need air, water, and food in order to live and thrive. 4.2.2a-Plants |

| animals       | and animals       |     |
|---------------|-------------------|-----|
| *Offspring    | closely resemble  | e   |
| *Other        | their parents and |     |
| Walrus        | other             |     |
| vv an as      | individuals in    |     |
| *Adaptability | their species.    |     |
| *Food         | 4.2.2b-Plants     |     |
| *Where        | and animals can   |     |
|               |                   | - 1 |
| they live     | transfer specific | ;   |
| 40 CC         | traits to their   |     |
| *Offspring    | offspring when    |     |
| *Other        | they reproduce.   |     |
| Penguin       | 4.3.1a-Each       |     |
|               | animal has        |     |
| *Adaptability | different         |     |
| *Food         | structures that   |     |
| *Where        | serve different   |     |
| they live     | functions in      |     |
|               | growth,           |     |
| *Offspring    | survival, and     |     |
| *Other        | reproduction.     |     |
| Seal          | 4.3.1c-In order   |     |
|               | to survive in     |     |
| *Adaptability | their             |     |
| *Food         | environment,      |     |
| *Where        | plants and        |     |
| they live     | animals must be   | ۵ ا |
| they hve      | adapted to that   |     |
| *Offspring    | environment.      |     |
| *Other        | 4.3.2a-           |     |
| Other         | Individuals       |     |
|               |                   |     |
|               | within a species  | ,   |
|               | may compete       |     |
|               | with each other   |     |
|               | for food, mates,  | ,   |
|               | space, water,     |     |
|               | and shelter in    |     |
|               | their             |     |
|               | environment.      |     |
|               | 4.5.2e-Particula  | ır  |
|               | animal            |     |
|               | characteristics   |     |
|               | are influenced    |     |
|               | by changing       |     |
|               | environmental     |     |
|               | conditions        |     |

|   |  | including: fat   |
|---|--|------------------|
|   |  | storage in       |
|   |  | winter, coat     |
|   |  | thickness in     |
|   |  | winter,          |
|   |  | camouflage,      |
|   |  | shedding of fur. |
|   |  | 4.5.2f-Some      |
|   |  | animal           |
|   |  | behaviors are    |
|   |  | influenced by    |
|   |  | environmental    |
|   |  | conditions.      |
|   |  | These behaviors  |
|   |  | may include:     |
|   |  | nest building,   |
|   |  | hibernating,     |
|   |  | hunting,         |
|   |  | migrating, and   |
|   |  | communicating.   |
| Е |  |                  |

#### F CHARACTERISTICS OF LIFE FUNCTION: DENTAL HEALTH

| b Essential Questions | Content | Skills  | Vocabulary | Assessments | Lessons | Resources | Standards   |
|-----------------------|---------|---|------------|-------------|---------|-----------|---|
| u<br>a<br>r<br>y      | Hygiene | General Skills: List and describe ways to take care of your teeth (visit the dentist, brush 3x's/day, eat healthy foods, floss) |            |             |         |           | 4.5.3a- Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health. 4.5.3b- Good health habits include hand washing and |

|  | personal     |
|--|--------------|
|  | cleanliness; |
|  | avoiding     |
|  | harmful      |
|  | substances   |
|  | (including   |
|  | alcohol,     |
|  | tobacco,     |
|  | illicit      |
|  | drugs);      |
|  | eating a     |
|  | balanced     |
|  | diet;        |
|  | engaging in  |
|  | regular      |
|  | exercise.    |

M CHARATERISTICS OF LIFE FUNCTIONS: NUTRITION

| a      |                        |                |                      |            |             |         |           |             |
|--------|------------------------|----------------|----------------------|------------|-------------|---------|-----------|-------------|
| r<br>c | Essential<br>Questions | Content        | Skills               | Vocabulary | Assessments | Lessons | Resources | Standards   |
| h      |                        | Types of Food  | General Skills:      | food       |             |         |           | 4.1.1a-     |
|        |                        | Healthy/Non-   | Classify foods       | groups     |             |         |           | Animals     |
|        |                        | Healthy        | (fruits, vegetables, | doctor     |             |         |           | need air,   |
|        |                        | Healthy        | meats/proteins,      | excercise  |             |         |           | water, and  |
|        |                        | Habits/Choices | dairy, grains)       | nutrition  |             |         |           | food in     |
|        |                        |                | General Skills:      |            |             |         |           | order to    |
|        |                        |                | Sort types of foods  |            |             |         |           | live and    |
|        |                        |                | into                 |            |             |         |           | thrive.     |
|        |                        |                | healthy/nonhealthy   |            |             |         |           | 4.4.2b-     |
|        |                        |                | groups               |            |             |         |           | Food        |
|        |                        |                | General Skills:      |            |             |         |           | supplies    |
|        |                        |                | List healthy habits  |            |             |         |           | the energy  |
|        |                        |                | and ways to take     |            |             |         |           | and         |
|        |                        |                | care of our bodies   |            |             |         |           | materials   |
|        |                        |                | (exercise, sleep,    |            |             |         |           | necessary   |
|        |                        |                | visiting the doctor, |            |             |         |           | for growth  |
|        |                        |                | eating healthy       |            |             |         |           | and repair. |
|        |                        |                | foods)               |            |             |         |           | 4.5.3a-     |
|        |                        |                |                      |            |             |         |           | Humans      |
|        |                        |                |                      |            |             |         |           | need a      |
|        |                        |                |                      |            |             |         |           | variety of  |
|        |                        |                |                      |            |             |         |           | healthy     |
|        |                        |                |                      |            |             |         |           | foods,      |
|        |                        |                |                      |            |             |         |           | exercise,   |
|        | <u> </u>               |                |                      |            |             |         |           | and rest in |

| 1. |                     |
|----|---------------------|
|    | order to            |
|    | grow and            |
|    | maintain            |
|    | good                |
|    | health.             |
|    | 4.5.3b-             |
|    | Good                |
|    | health              |
|    | habits              |
|    | include             |
|    | hand                |
|    | washing             |
|    | and                 |
|    | personal            |
|    | cleanliness;        |
|    | avoiding            |
|    | harmful             |
|    | substances          |
|    | (including          |
|    | alcohol,            |
|    | tobacco,            |
|    | illicit             |
|    | drugs);             |
|    | eating a            |
|    | balanced            |
|    | diet;               |
|    | engaging in regular |
|    | exercise.           |
|    | exercise.           |

## A CHARACTERISTICS OF LIFE FUNCTIONS: FIVE SENSES

| ential<br>estions | Content                                       | Skills   | Vocabulary  | Assessments | Lessons | Resources | Standards   |
|-------------------|---|--|---|-------------|---------|-----------|---|
|                   | Sight<br>Hearing<br>Taste<br>Feeling<br>Smell | Name the body part for each sense General Skills: Verbally explain the | senses sight hearing taste touch smell eyes nose ears skin tongue |             |         |           | 4.5.2c-Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment. |

| General Skills: Apply senses to describe the environment around them and explain how we use |
|---|
| our senses.   |

### M ECOLOGY:LIFE CYCLES

| a | ECOLOGY: LIFE CYCLES |                            |   |  |             |         |           |   |
|---|----------------------|----------------------------|---|--|-------------|---------|-----------|---|
| у | Essential Questions  | Content                    | Skills  | Vocabulary   | Assessments | Lessons | Resources | Standards   |
|   | Questions            | Frog<br>Butterfly<br>Plant | General Skills: Sequence the life cycle of a frog (egg, tadpole, froglet, frog) General Skills: Sequence the life cycle of a butterfly (egg, caterpillar, chrysalis, butterfly) General Skills: Sequence the life cycle of a plant (seed, sprout, plant, flower) General Skills: Verbally | life cycle egg tadpole froglet frog caterpillar chrysalis butterfly seed sprout plant flower sun stem root soil air love water |             |         |           | 4.1.1b-Plants require air, water, nutrients, and light in order to live and thrive. 4.3.1b-Each plant has different structures that serve different functions in growth, survival, and reproduction. 4.4.1a-Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually |
|   |                      |                            |   |  |             |         |           |   |

| identify parts of a plant (roots, stem, leaves, flower) General Skills: List needs of a plant (sunlight, water, air, soil, love)  4.1.d-Life cycles of some plants include changes from seed to mature plant. 4.4.le-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.lf-Each kind of animal goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.lf-Each kind of animal goes through its own stages of growth   |          |  |               |
|---|----------|--|---------------|
| parts of a plant (roots, stem, leaves, flower) leaves, flower) General Skills: List needs of a plant include seed, young plant, water, air, soil, love)  A J. H. L.   | identify |  | death.        |
| plant (roots, stem, leaves, flower) General Skills: List needs of a plant (sunlight, water, air, soil, love)  4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| stem, leaves, flower) General Skills: List needs of a plant (sunlight, water, air, soil, love)  Soil, love)  Soil, love)  Stages of some plants include seed, young plant, and mature plant. 4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1Fach kind of animal goes through its own stages of growth   |          |  |               |
| leaves, flower) General Skills: List needs of a plant (sunlight, water, air, soil, love)  4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1F-Each kind of animal goes through is own stages of growth   | I= I     |  |               |
| flower) General Skills: List needs of a plant (sunlight, water, air, soil, love)  4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth and development that may include seed, young plant, and mature plant. 4.1d-Life cycles of some plants include changes from seed to mature plant. 4.1e-Each generation of animals goes through changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| General Skills: List needs of a plant (sunlight, water, air, soil, love)  See a completed changes from seed to mature plant. 4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some egg to larva to pupa to adult. 4.4.1F-Each kind of animal goes through its own stages of growth   |          |  |               |
| Skills: List needs of a plant (sunlight, water, air, soil, love)  Skills: List needs of a plant (sunlight, water, air, soil, love)  A.4.1d-Life cycles of some plants include changes from seed to mature plant.  4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| needs of a plant (sunlight, water, air, soil, love)  soil, love)  that may include seed, young plant, and mature plant. 4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1F-Each kind of animal goes through its own stages of growth  | I I      |  |               |
| plant (sunlight, water, air, soil, love)  soil, love)  love  love |          |  |               |
| (sunlight, water, air, soil, love)  (sunlight, water, air, soil, land mature plant.  4.4.1d-Life cycles of some plants include changes from seed to mature plant.  4.4.1e-Each generation of animals goes through its called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| water, air, soil, love)  water, air, soil, love)  4.4.1d-Life cycles of some plants include changes from seed to mature plant.  4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth  | I* I     |  |               |
| soil, love)  plant. 4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages  |          |  |               |
| 4.4.1d-Life cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through   |          |  |               |
| cycles of some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  | 1             |
| some plants include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| include changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| changes from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| from seed to mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| mature plant. 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| 4.4.1e-Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | young to      |
| sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | adult. This   |
| sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | completed     |
| changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.  4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| called a life cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | changes in    |
| cycle. Some insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | form is       |
| insects change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | called a life |
| change from egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | cycle. Some   |
| egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  | 1 -           |
| egg to larva to pupa to adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| adult. 4.4.1f-Each kind of animal goes through its own stages of growth   |          |  |               |
| 4.4.1f-Each kind of animal goes through its own stages of growth  |          |  |               |
| kind of animal goes through its own stages of growth  |          |  |               |
| animal goes through its own stages of growth  |          |  |               |
| through its own stages of growth  |          |  |               |
| through its own stages of growth  |          |  |               |
| of growth   |          |  |               |
|   |          |  | own stages    |
|   |          |  | of growth     |
| and   |          |  | and           |

|  |  | development during its |
|--|--|------------------------|
|  |  | life span.             |
|  |  | 4.4.2a-<br>Growth is   |
|  |  | the process            |
|  |  | by which plants and    |
|  |  | animals                |
|  |  | increase in size.      |

### T CHARACTERISTIC OF LIFE FUNCTIONS: ZOO ANIMALS

| - 1 | Essential<br>Questions | Content            | Skills  | Vocabulary                    | Assessments | Lessons | Resources | Standards   |
|-----|------------------------|--------------------|---------|-------------------------------|-------------|---------|-----------|---|
|     |                        | Animals of the zoo | Skills: | zoo<br>environment<br>habitat |             |         |           | 4.4.1f-Each kind of animal goes through its own stages of growth and development during its life span. 4.5.1a-All living things grow, take in nutrients, breathe, reproduce, and eliminate waste. |