

Name: _____ #: _____ Class: _____ Date: _____

Science Test: **ANSWER SHEET**
Life Cycles – Unit 5B

Parents: You will notice the answers below have a great amount of detail and show how one can “exceed the standard” in Science for Year 5. Note: In order to exceed the standard, responses need to consistently exceed the standard in all areas of the test. “Meets the standard” would include most of the basic concepts of the answers below, but without the detail and higher-order thinking. “Approaches the standard” would show limited understanding of more than one main concept.

1. Explain Pollination. Use the parts of the flower in your description (flip). *Pollination is when an insect or the wind carries pollen from one flower to another. The pollen is carried from the stamen to the stigma. The pollen sticks to the stigma and travels down the style to the ovary. Here the pollen joins with the ovules (eggs) and there they form the seed. **Extra:** Cross-pollination is when pollen from one flower pollinates another flower and self-pollination is when the pollen lands on the stigma of the same flower and pollination occurs within that flower.*

2. What is reproduction? *Reproduction means to produce young.*

3. What does “disperse” mean? (ex: seed dispersal)
Disperse means to travel or spread.

4. How are seeds *dispersed*? Name as many ways as possible and give an example of a seed for each (5 in all).

EX1: hitch ride with animal (burr or idea of seed with hooks)

EX2: water/ float or roll (coconut)

EX3: animal eats and poops/discards seed (sunflower / blackberry etc.)

EX4: wind (dandelion)

EX5: explodes (pea pod)

3/5 correct examples & seeds given = Meets the Standard

5. Draw a picture of the life cycle of a plant:

Seed – Plant or Tree – Flower – Fruit – back to Seed (in a circle)

6. What do seeds need to grow?

Water & Warmth (the idea is that they have the food already inside their seed to grow for the first week –similar to an egg yolk before the chick hatches)

7. What do plants need to grow?

Water, Sunlight & Soil

8. Label all the flower parts below.

(WORD BOX: STAMEN, NECTARIES, ANTHER, STIGMA, FILAMENT, STYLE, SEPALS, OVARY, CARPEL, OVULE, PETALS)

(turn over)

LEFT SIDE:

Petals

Filament

Stamen

Ovule (egg) – (to right of Stamen box)

Receptacle

RIGHT SIDE:

Anther

Carpel

Stigma

Style

Ovary

Nectaries

Sepals

9. What is the function of each (what do they do for the flower)?

Carpel = The carpel is the female part of the flower, where the seeds are made. The carpel has three parts: the stigma, the style, and the ovary.

Stamen = The stamens are the male parts of the flower. Their job is to make pollen. Pollen is a fine yellow powder that is needed to make a new plant. Each stamen has two parts: an anther and a filament. The anther contains the pollen and the filament holds up the anther.

Petals = Petals are often very brightly coloured. This is because their main job is to attract insects, such as bees or butterflies, into the flower. The insects pick up pollen from the flower, and carry it to the next flower they visit. This is how most flowers are pollinated.

(see next page)

Nectaries = The nectaries are the parts of a flower that make nectar. Nectar is a sweet substance, which insects drink to give them energy. Bees also use

nectar to make honey. The nectaries are usually right in the centre of the flower. This means the insects have to reach deep into the flower to find the nectar. As they do so, their bodies pick up pollen from the anthers, and they carry it to the next flower they visit.

Sepals = Sepals are special types of leaves that form a ring around the petals. Their job is to protect the flower while it is still a bud. After the flower has opened, the sepals can still be seen behind the petals.

Ovary = The ovary is part of the carpel, or the female part of the flower. The ovary contains the ovules (or "eggs"). In the ovary, the pollen joins with the ovules, and the ovules become seeds. Then, the ovary turns into the fruit.

Ovule = the eggs