Subject: Science

Level: Standard 3

Strand: Form and Function

Topic: Examining the external parts of the flower

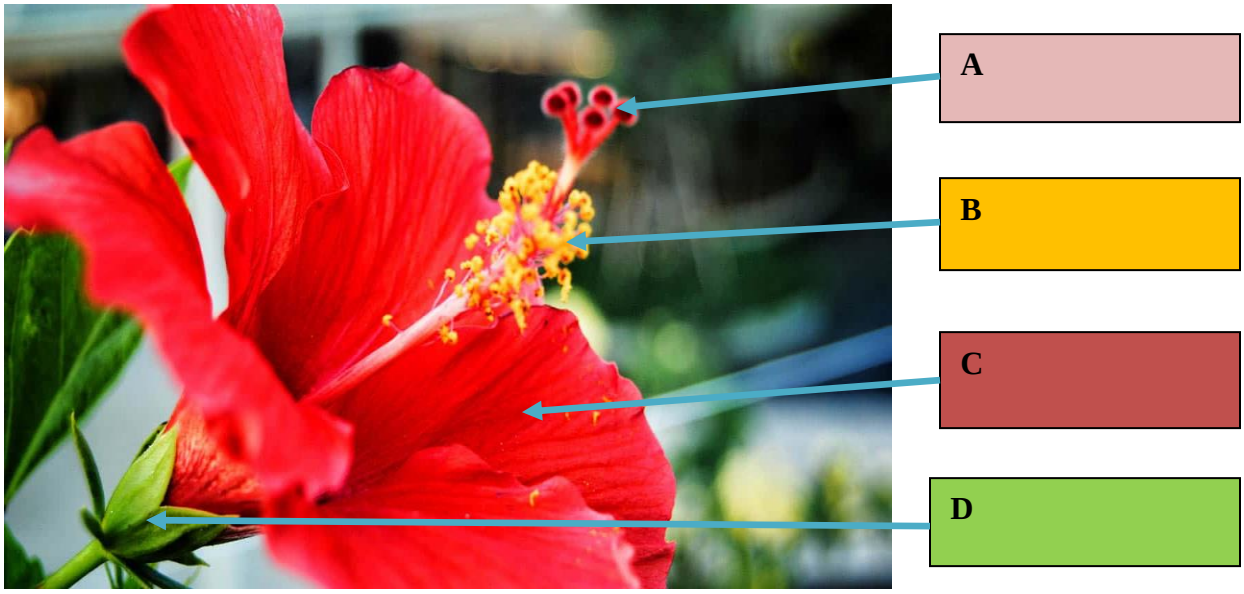
Key Points:

- The flower is the part of the plant where seeds are produced.
- Many flowers are colourful to attract insects.
- For colourful flowers, insects play an important role in the development of seeds.
- To produce seeds, a flower usually has both male and female structures
- The main parts of a flower and their functions are:
    - Sepal- Outermost part of the flower. Usually green. Protects the unopened parts of the flower
    - Petal- Usually large and colourful. Attracts insects.
    - Stamens: the male part of the flower consisting of the:
        - Filament: tube-like structure that holds up the anther
        - Anther- Yellow in colour as it contains pollen grains
    - Pistil: the female part of the flower consisting of:
        - Stigma- top of the female part of the flower which collects the pollen grains
        - Style: tube which leads from the stigma to the ovary
        - Ovary: helps to produce the seeds

Activity 1.

Parts of the flower

Jesse is examining and labelling the external parts of a flower with her class. The teacher brought some Hibiscus flowers. A picture of one of these flowers is shown below. Jesse and her friends examine the flower and then they use the clues to identify the parts of the flower.

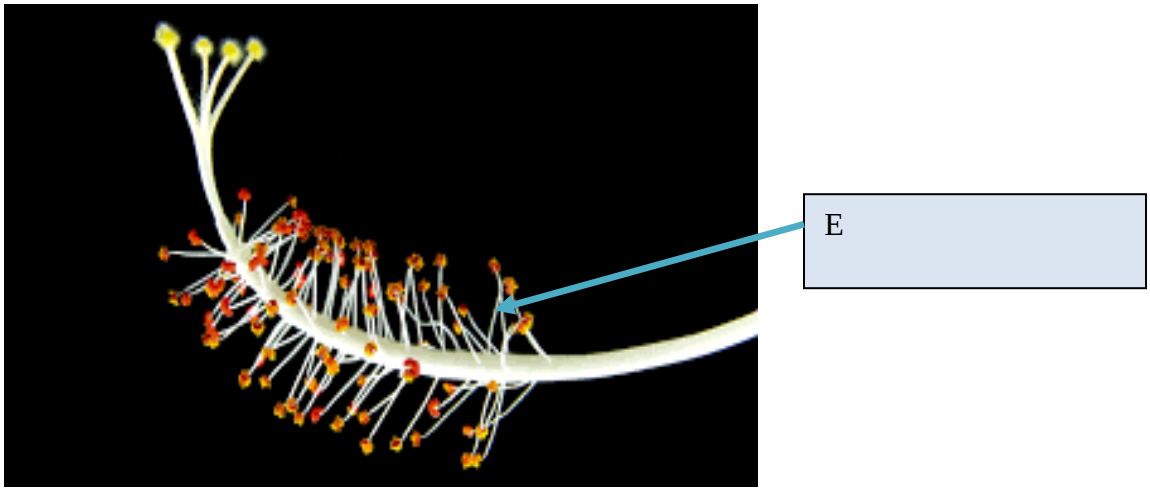


(i) Follow the following clues to identify parts A to D in the Hibiscus flower above.

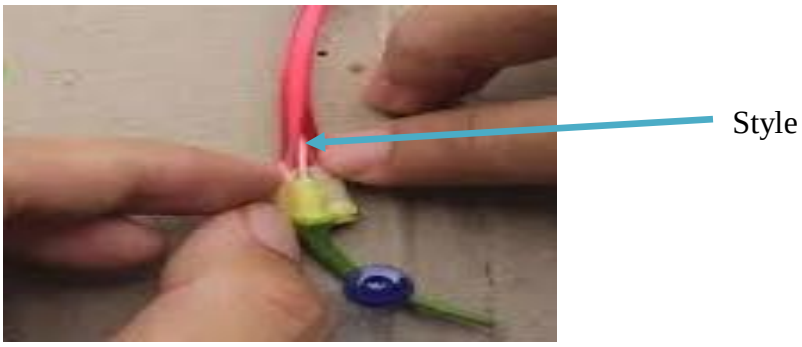
- **Sepal**- Outermost part of the flower. Usually green.
- **Petal**- Usually large and colourful. Attracts insects.
- **Anther-** Yellow in colour as it contains pollen grains
- **Stigma**- Dark red and above the anther in Hibiscus

(ii).The students then examine the stamen (male part of the flower), using a magnifying lens.
They notice each anther is supported by a thin thread like structure.
The teacher said this structure is called a filament.

Label the filament in the picture below.

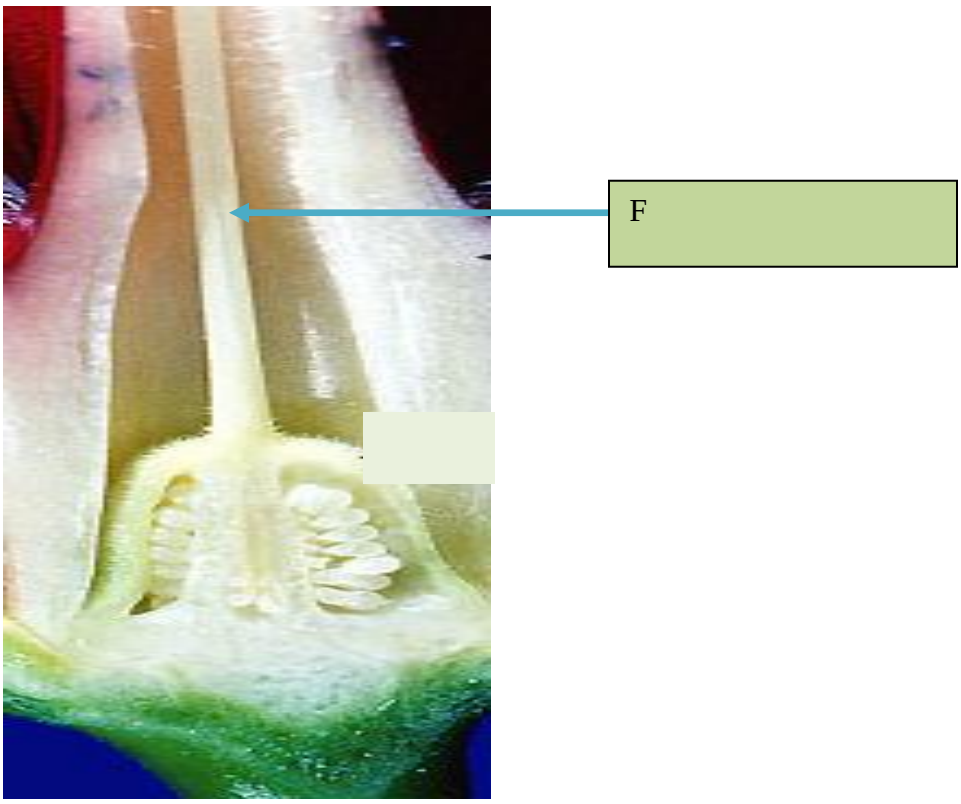


(iii) a. The students then search for the tube which is connected to the stigma.
In the Hibiscus, the style is found within the long tube to which the stigma is attached.
The students gently tear into the long tube.
Before long, they are able to see the style.



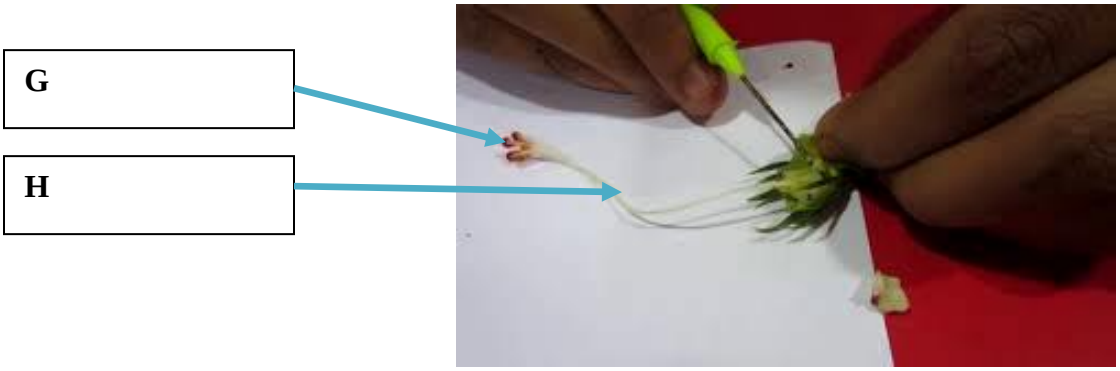
(iii) b. The students then use magnifying lens to get a closer view of the style, within the long tube.

Label structure F on the picture below.



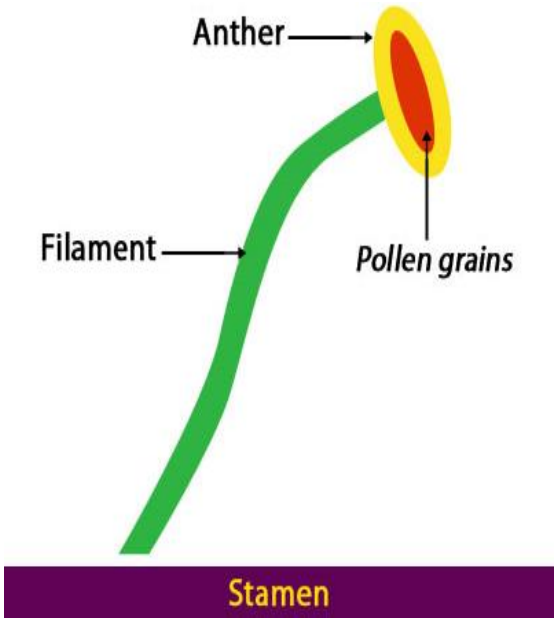
(iv). The style was then gently pulled out from the long, outer tube. This is shown below.

Label the G and H, shown in the picture.

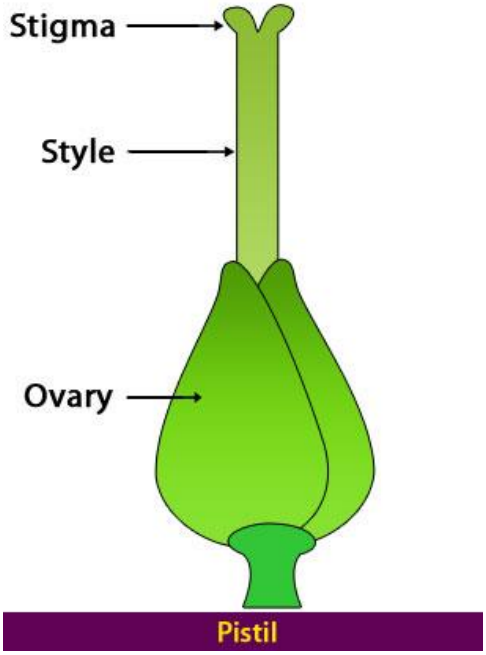


2. Male and female structures of the flower.

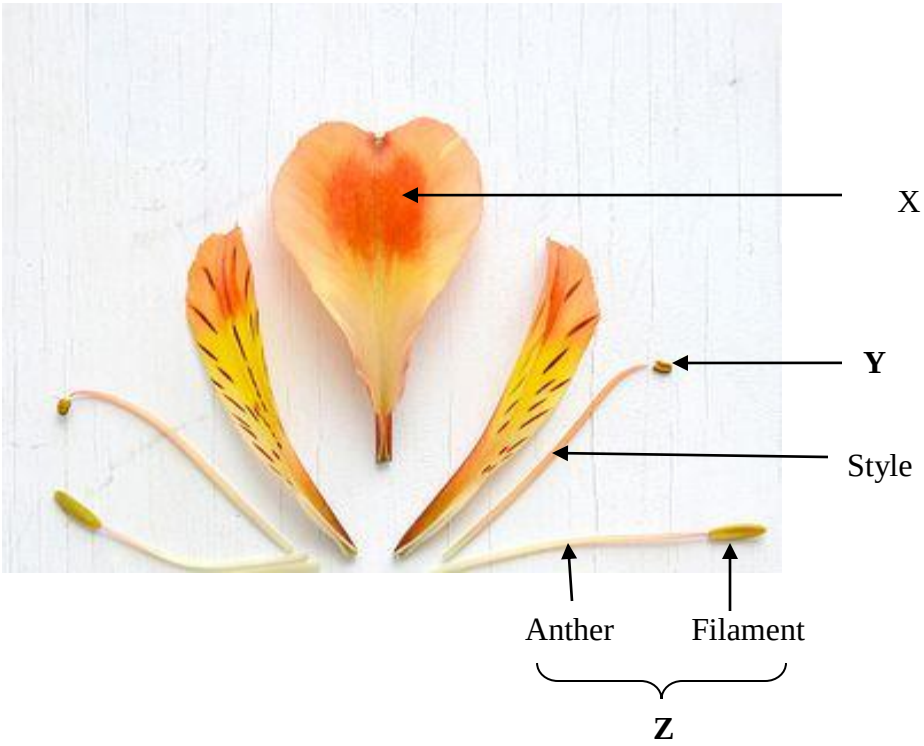
A. The male part of the flower is called the STAMEN, and is made up of the anther and filament.



B. The female part of the flower is called the PISTIL, and is made up of thestigma and style and the ovary.



Nam**e X, Y** and **Z,** as shown on the diagram



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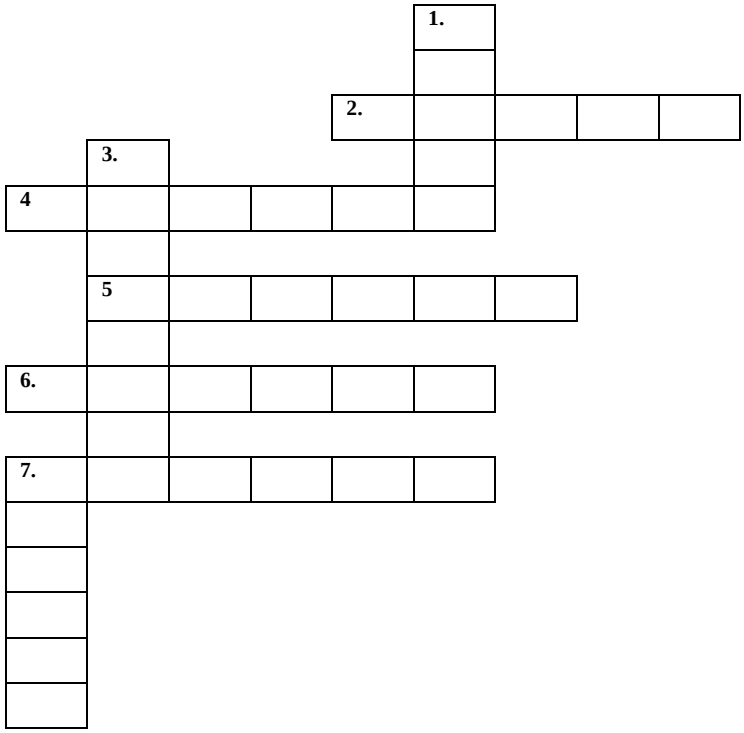
X _____

Y_____

Z_____

Assessment

3. Below is a cross word puzzle on parts of the flower. Follow the clues across and down to complete the puzzle.



Across

2. Joins the stigma to the ovary

4. Female part

5. Contains pollen grains

6. Usually green

7. Male part

Down

1. Colourful to attract insects

3. Holds up the anther

7. Traps pollen grains

Answer Key

1. (i) A- Stigma

B- Anther

C- Petal

D- Sepal

(ii) E- Filament

(iii) F- Style

(iv) G- Stigma

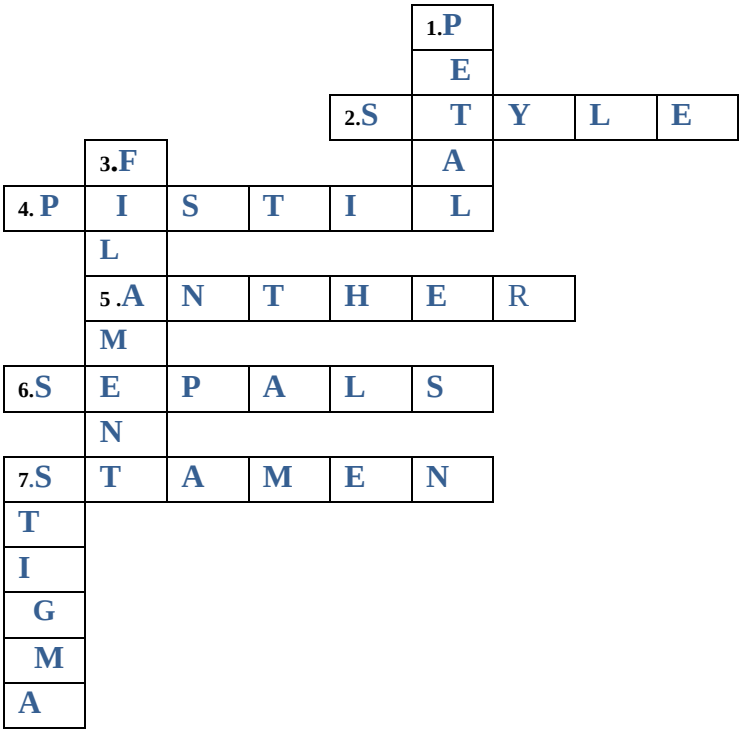
H- Style

2. X- Petal

Y- Stigma

Z- Stamen

3. Below is a completed cross word puzzle on parts of the flower.



Across

2. Joins the stigma to the ovary

4. Female part

5. Contains pollen grains

6. Usually green

7. Male part

Down

1. Colourful to attract insects

3. Holds up the anther

7. Traps pollen grains

Acknowledgement

Activity with Picture	**Reference**
1. Parts of the flower (i)	https://volunteerprogramsbali.org/flowers-of-bali-red-hibiscus/ Copied from Google Images Bali flowers volunteerprogramsbali.org
1. Parts of the flower (ii)	https://www.pexels.com/search/flower/ Copied from Google Images Flower Parts · Free Stock Photo pexels.com
1. Parts of the flower (iii) a.	https://www.wikihow.com/Dissect-a-Flower How to Dissect a Flower: 8 Steps (with Pictures) - wikiHow wikihow.com
1. Parts of the flower (iii) b.	http://www.life.illinois.edu/help/digitalflowers/ Digital Flowers life.illinois.edu
1. Parts of the flower (iv)	https://www.youtube.com/watch?v=wMwY8NGZaZQ Excellent Hibiscus Flower Dissection Really Usefull Stuff Copied from Google Images Excellent Hibiscus Flower Dissection - YouTube
2. Male and female structures of the Flower (A and B).	https://k8schoollessons.com/parts-of-a-flower/
2. Male and female structures of the Flower (Name X, Y and Z).	https://www.pinterest.com/pin/303078249899184901/. Copied from Google Images pinterest.com