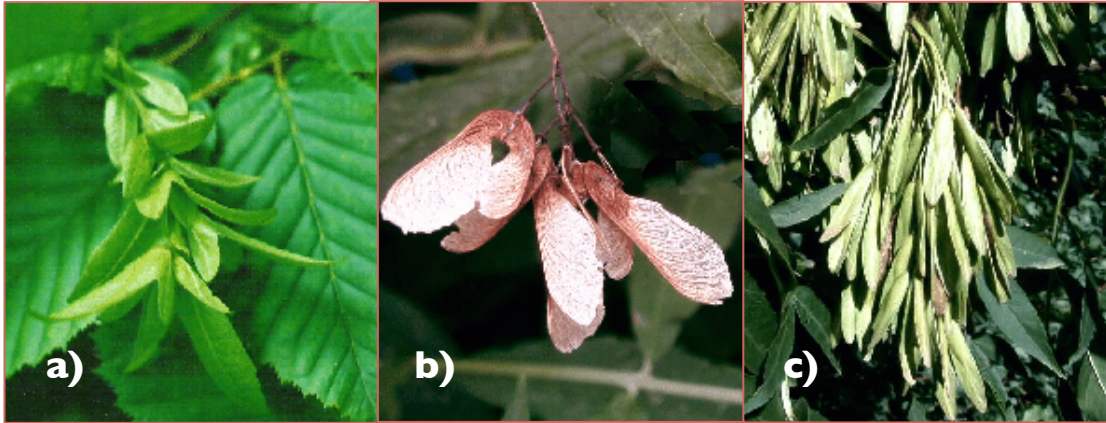


Name: _____

Adaptive Aviators Flying Seeds

Some trees produce seeds with stiff wings that allow them to glide long distances. The wings are slightly twisted or balanced so that the seed spins as it glides to the ground. The following images depict Hornbeam, Sycamore, and Ash tree seeds. Describe 2 characteristics you notice about them that might help them fly.



- a) Tree Name: **Hornbeam**; Characteristics: _____
- b) Tree Name: **Sycamore**; Characteristics: _____
- c) Tree Name: **Ash**; Characteristics: _____

Twisting & Turning

Materials:

- Scissors
- Paper clips
- Crayons
- Spinner Pattern

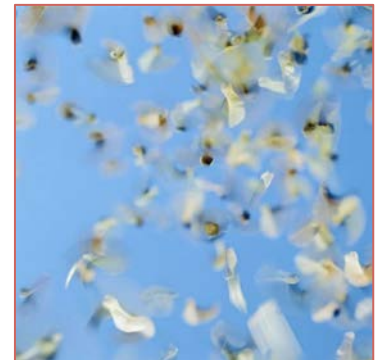


Instructions:

1. Cut, colour and fold the spinners.
2. Place a paperclip at the end of your spinners to keep the folds in place.
3. Drop the spinners from a height, either inside or outside on a play structure (if possible). Describe the motion of the spinners, using proper vocabulary for movement:

Follow-Up:

1. Why do the spinners fall in the first place, since they are so light?
2. Did the spinners move to the side? Why would they?
3. What other things are pulled to the ground in a similar way?
4. Why is it important for maple keys and other “twisting and turning” seeds to catch the wind?



Name: _____

Windy Wanderers

There are other ways that plants have adapted in terms of dispersing their seeds: some have seeds that drift in the wind (rather than flying/gliding), and some whose seeds are simply released from their pods by the wind bending their stalks.

Can you match the pictures to the type of plant, and determined whether or not it is a **drifting** or **pod** seed? The possible names are: Willow Herb, Bulrush, Columbine, Dandelion, Poppy, and Evening Primrose.



Name: _____

Name: _____

Name: _____

Name: _____

Name: _____

Name: _____

Type:
Drifting / Pod

Type:
Drifting / Pod

Type:
Drifting / Pod

Type:
Drifting / Pod

Type:
Drifting / Pod

Type:
Drifting / Pod

Air & Ability

There are properties of air that make flight possible for these seeds as well as for birds and man-made objects like planes. Circle the properties of air listed below if you think they contribute to how an object flies:

Air has mass

Air can compress

Air can expand

**Air is breathed in by
plants and animals**

Air is clear



Bernoulli's Principle

According to Bernoulli's Principle, the fast-moving air on top of a wing causes an area of low pressure to develop. The slower moving air on the bottom of a wing has higher pressure instead. When this happens, the area of high pressure under the wing rushes up to fill the area of low pressure above, providing lift. Look at your choices above and provide a reason for why they help a wing to fly.



Name: _____

