

# SAMPLE

## Two-Column Notes

Date: \_\_\_\_\_

Topic: Hummingbirds : Messenger of the Gods

| Main Ideas (Topic) | Details   |
|--------------------|---|
| Anna's             | • can hover   |
| So Cal             | • fly backwards   |
|                    | • advertise presence w/ feathers  |
| Costas             | • colors  |
| Colorado           | • can dive @ 60 mph   |
| desert             | • iridescent feathers   |
|                    | • possession of territory is critical                                     |
|                    | • eat nectar  |
|                    | • help with pollination   |
|                    | • hummingbirds evolved first in So America                                |
|                    | • only found in the Western Hemisphere                                    |
|                    | • can still fly in the rain   |
|                    | • plants have evolved to attract hummingbirds                             |
|                    | • warm blooded  |
|                    | • active all day long no matter the weather                               |
|                    | • 12 plants in the mountains of So America are pollinated by hummingbirds |
|                    | • the Giant hummingbird = 1st hummingbird                                 |
|                    | • tiniest, smallest humm. in world -                                      |
|                    | • hummingbird flower  |
|                    | - long  |
|                    | - tubular   |
|                    | - out on a limb   |
|                    | - no scent - doesn't attract insects - only get poll. by hummingbirds     |

# Two-Column Notes

Date: \_\_\_\_\_

Topic: \_\_\_\_\_

Main Ideas

Details

wing beat

• in flight  
• resting

• torpor

incubation

• long thin bills and long tongues

• swordbill - has specific bill shaped for flower

• fused bones

• rigid

• 70 x per second

• convert nectar (food) to glucose fastest than any animal

• 1200 bpm

• 480 bpm / 70 bpm human

• requires food every 10 mins

• @ night go into a night hibernation called torpor

36 bpm / temp from 110° to (55°)

15,000 ft. Andean Hillstar

just below snow line

- cold, thin air

• all hummingbirds lay only 2 eggs, small white

• drops body temp when incubation

• 100 per session

20x / day = 200 insects in a day