What Fish is That?

Component	Instructional Plans
Engage 2 minutes	Welcome Introduce yourself Imagination: Invite students up to the fish tank. Tell them that everyone should choose a fish that is interesting to them. Perception: Students find the fish they like best/find most interesting. "Give me a thumbs up when you have found your fish." Emotion: "Think about what makes you like this fish so much." Connection: Today YOU are going to figure out this fish's name. *Management: When they've got their favorites, ask them to step back into a circle around the tank - so everyone has a front row seat. Give chaperones a job.*
Grapple 2 minutes	Imagination: "I will not tell you the names of any of these fish!" Explain that they are going to have to figure it out for themselves. Perception: "how might you be able to do this?" Have students share ideas with each other. Summarize what you hear students saying to the whole group. Emotion: "Do you think it will be easy or hard to figure out the name of your fish?"

Focus
4 minutes
	Imagination:
	Explain that by using a dichotomous key (make them say "dichotomous" - it's just a great word!) that asks yes/no questions, they can find the name of their favorite fish.
	"In order to use the key, there are some terms/ideas to know"
	use the laminated diagram as a guide through each piece:
	● Tail fin = caudal fin (why might caudal fin shape be so important?)
	● Top fin = dorsal fin (why might dorsal fin shape be so important?)
	● Body shape: (what does shape tell us?)
	   ○ Pan = wide in the middle, would fit nicely in a pan
	   ○ Torpedo = long so it can go fast
	● Mouth shape (what does mouth shape tell us?)
	● Pattern (what do patterns tell us?)
	   ○ Horizontal = side to side
	   ○ Vertical = up and down

Apply 5 minutes	Perception: Invite a volunteer to stand next to the fish tank, make sure he/she knows the favorite fish in the tank and can find it Hand out the keys Model how to ask a question based on the key, guide student to say yes or no Work through the key, having participants in the class ask questions Emotion: When someone figures out the student's favorite fish - switch and have that new person come up to have their favorite fish identified. After modeling a few times, allow students a few minutes to figure out the name of the fish they chose.
Synthesize 2 minutes	Imagination: Have students explain how they figured out the names of their favorite fish in the fish tank using the dichotomous key. Emotion: "Was it very challenging?" Connection: "By making good observations and using the right tool, we can figure out the names of all the fish in the tank. (And the instructor never told anyone the names of any fish…)"