

<p><b>LCM Lesson Plan: Thumbs</b></p> <p><b>Standards:</b> Science A12 and B1, Cultural E8 Language Arts A4 and A6</p> <p><b>Science concept:</b> Thumbs are an important human adaptation that gives us an advantage over most other animals</p>	<p><b>Name</b> Donna Massin <b>Grade level</b> 4th <b>School</b> Evergreen Elementary <b>City</b> Wrangell</p>	
	<b>Process Skills</b>	<b>Materials</b>
<p><b>Gear- Up</b> Ask what are some things humans can do that animals cannot? Ask why animals cannot do them.</p>	Classifying Observing Communicating	Addison-Wesley Destinations in Science Grade 4 Masking tape
<p><b>Explore</b> Have them predict which activity from below would be hardest without a thumb. Have student in groups of two, take turns taping their thumb to their palm and trying to do the following: Cut a paper in half; zip a coat; pick up a cup, coin; turn cup upside down; write your name</p>	Communicating Observing Predicting	Pencil sharpener Pencil cup Paper coat Scissors
<p><b>Generalize:</b> Which were the hardest to do and why? How did you compensate for not having a thumb? Compare your methods with others. Which do you think was the best way?</p>	Communicating Classifying	<p><b>Vocabulary</b></p> Adaptation Human Compensate
<p><b>Apply/Assess</b> Written answers to the following: What have thumbs enabled people to do that most animals cannot? Think of at least five, 3 should be important to daily life.</p> <p>Think of at least one invention that might have been made if humans did not have thumbs. Include a diagram.</p>	Communicating	

<p><b>Extensions:</b>  Study more human adaptations:  Large brains, wide pelvis, arched feet, curved spine, vocal cords,  Do the explore with all but three or two fingers taped back.</p>		
--	--	--

Assessment Rubric for  
Thumb LCM lesson

	Advanced	Proficient	Below Proficient	Not Proficient
What thumbs have enabled us to do that animals cannot?	Lists five or more things thumbs enabled us to do that animals cannot. 3 or more are important to humans' daily life.	Lists five or more things humans are able to do with thumbs that animals cannot. At least one is important to humans' daily life.	Lists 4 or 3 things humans are able to do with thumbs that animals cannot.	Lists less than three things that humans are able to do with thumbs that animals cannot do.
Invention	Invention is well described and illustrated. Invention would be helpful to most humans and is related to thumbs.	Invention is described and illustration is present. Invention would be helpful to many humans and is related to thumbs.	Invention description or illustration is not easily understood, or illustration is missing. Would be helpful to some humans and is related to thumbs.	Invention or description not understandable, missing, or would not be helpful to most humans. It may not relate to thumbs at all.