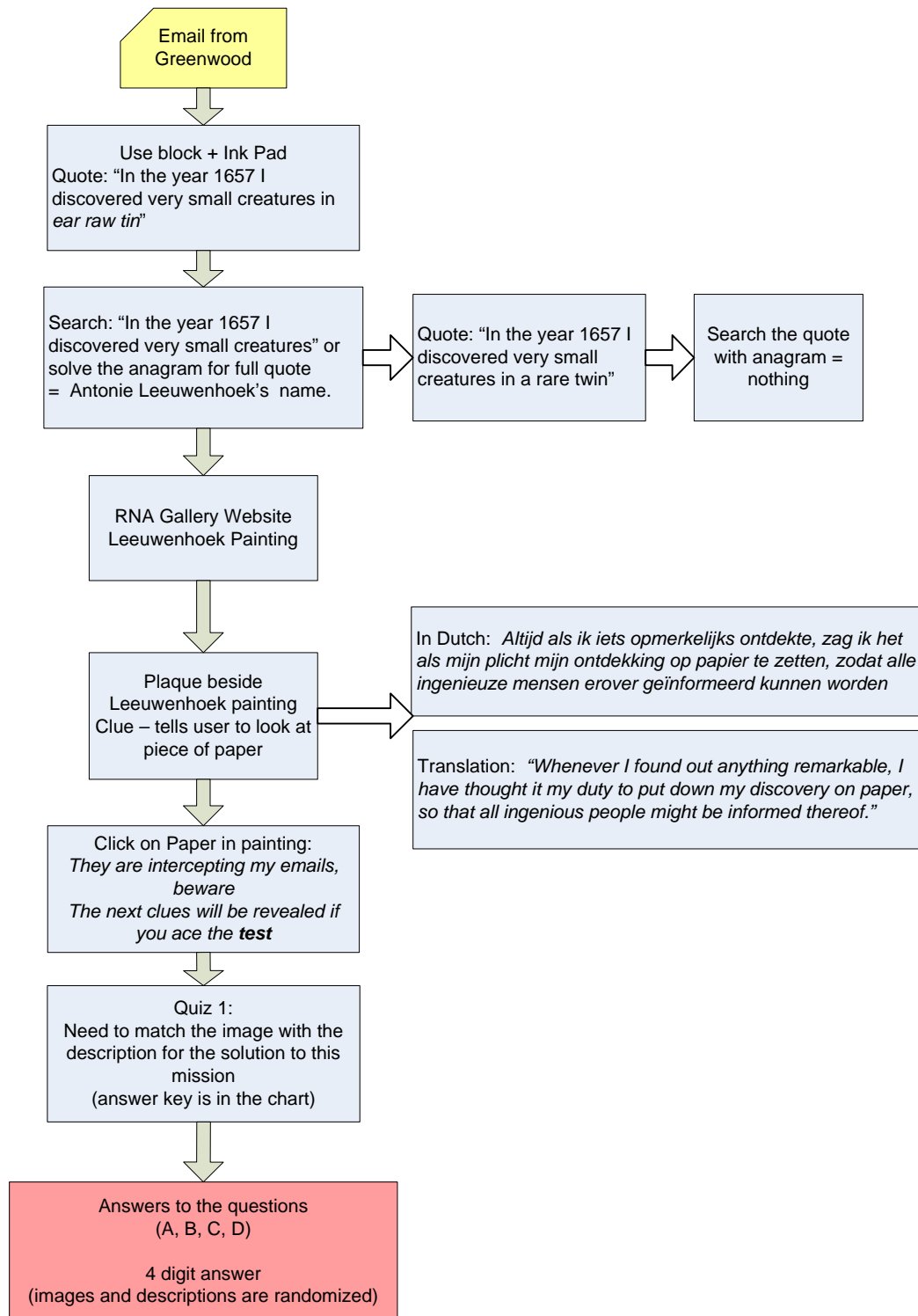


HISTORY OF BIOLOGY

■ Teacher's Walkthrough

MISSION 3: IT'S ALL DUTCH TO ME

A) WORKFLOW



HISTORY OF BIOLOGY



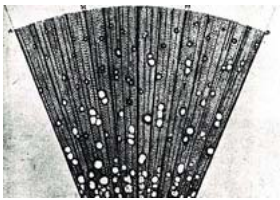
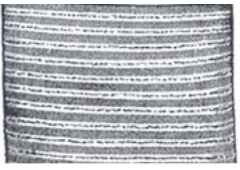

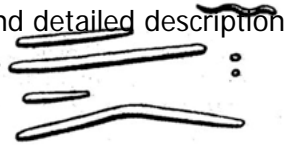
■ Teacher's Walkthrough

B) EMAILS, CLUES, OBJECTS

	Contents	Explanation
EMAIL CLUES	<p>M03: INTRO EMAIL</p> <p>From: Dr. Jordan Greenwood Subject: Tonight's Gallery Preview</p> <p>Dear user, I have in my calendar an event that I was scheduled to attend with Dr. Shyre. He donated a number of paintings from his private collection and there is a member's only preview online tonight. One of the paintings Dr. Shyre donated is of one of my favourite microbiologists. I'm sure you know of him; you have one his quotes. I am fond of him especially for his use of anagrams to throw people off, as to protect his intellectual property.</p> <p>Perhaps you should visit the online preview as well. One of the paintings seems a bit different, but I can't put my finger on it. Maybe a fresh set of eyes would help? Click here to visit the gallery.</p> <p>Sincerely, Dr. Greenwood</p>	<p>Leeuwenhoek used anagrams to encrypt his work.</p> <p>RNA Gallery: must use the link within the email to generate with random content. Typing in the URL will not work.</p>
OBJECT	<p>1. Ink pad 2. Printing Press Block with the letter L and a quote, with part of it disguised as anagram:</p> <p><i>'In the year 1657 I discovered very small creatures in ear raw tin'</i></p>	<p>1. From the Tools tab, select the Inkpad, then select the Block from the Objects Tab.</p> <p>2. 'ear raw tin' is an anagram for 'rain water.' Searching the web for the initial part of the clue will lead them to Leeuwenhoek</p>
WEBSITE	<p>RNA Gallery – users need to identify which painting is of interest. The quotation on the printing press block will help, as well as the reference of a 'microbiologist' in the initial email</p> <p>Leeuwenhoek painting: plaque has quotation in dutch: <i>"Altijd als ik iets opmerkelijks ontdekte, zag ik het als mijn plicht mijn ontdekking op papier te zetten, zodat alle ingenieuze mensen erover geïnformeerd kunnen worden"</i></p> <p>Using a translation program it should roughly translate to: "Whenever I found out anything remarkable, I have</p>	<p>1. Click on link to gallery in the email</p> <p>2. Find Leeuwenhoek's painting</p> <p>3. Translate the dutch quotation</p> <p>Click on the piece of paper on the painting</p>


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	thought it my duty to put down my discovery on paper, so that all ingenious people might be informed thereof"	
WEBSITE	Shyre's Quiz pages. Clicking on the paper in Leeuwenhoek's painting reveals the secret message: <i>They are intercepting my emails, beware</i> <i>The next clues will be revealed if you ace the test</i>	'test' link takes you to Shyre's webpage for Quiz #1
QUIZ 1	<p>Answer Key:</p> <p>Leeuwenhoek used this to observe small animalcules</p>  <p>He found many of these (rotifers) in the rainwater collected in ditches and canals</p>  <p>Leeuwenhoek was the first to describe plant vessels in this cross section of an ash tree</p>  <p>He was the first to describe the banding pattern of muscle fibers</p>  <p>Leeuwenhoek was the first to observe that yeast consisted of many tiny particles</p>  <p>This drawing was the first accurate and detailed description of red blood cells</p> 	<p>Each image displayed in the quiz needs to be matched with one of the descriptions listed.</p> <p>The corresponding number (from the image) that matches with the letter (from the description) is this solution to this mission</p>

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	<p>Leeuwenhoek was the first to describe these and hence called the "Father of Microbiology"</p>		
EMAIL	<p>M03: VICTORY EMAIL From: Dr. Jordan Greenwood Subject: Antonie van Leeuwenhoek</p> <p>Dear user,</p> <p>Now do you understand why Leeuwenhoek is one of my favourite scientists? Could you imagine the excitement when he held up his microscope to his eye and saw the thousands of tiny animals moving in water? Remember, at this point in time, no one had ever seen these tiny living organisms before.</p> <p>Leeuwenhoek was the ultimate observer and used his microscopes to see tiny living things in places no one had imagined. The single lens microscopes he built could magnify >200x, which was a significant improvement as the previous ones could only magnify 20-30x.</p> <p>However, he lived in time when measurements for microorganisms he saw were nonexistent – micrometers was an unknown measurement then. Because of this he had to compare the tiny animalcules he saw to visible things – for example, grains of sand for red blood cells.</p> <p>Dr. Greenwood</p>		