	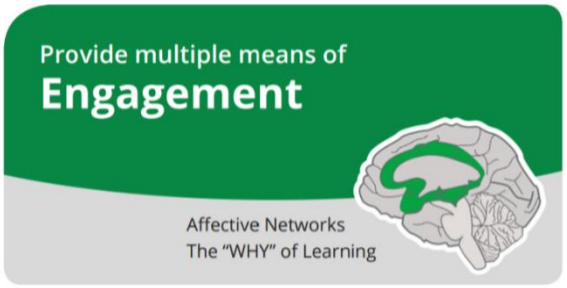	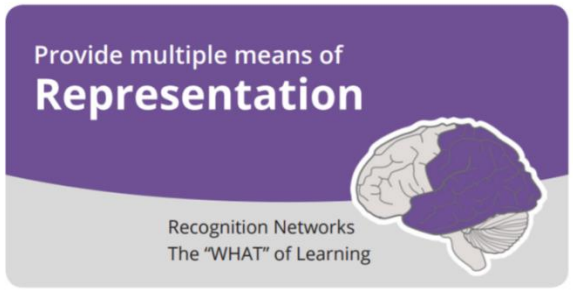	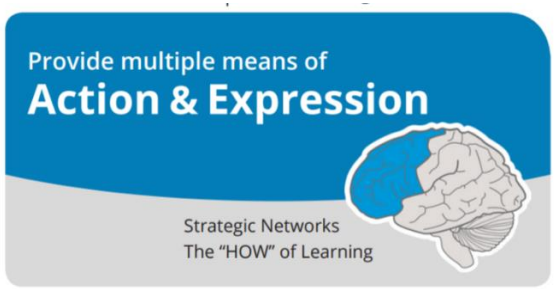
	Affective Networks: The Why of Learning People learn best when they perceive that what they are learning is meaningful. When students connect learning to personal goals and develop a personal routine for achieving these goals, learners may act with focused intention and motivation.	**Recognition Networks: The What of Learning** The process of learning involves decoding information, processing it while it is held in short-term memory, then integrating it with existing schemas to incorporate the knowledge into long-term memory. Ensuring that materials can be efficiently decoded and processed in working memory is requisite to deep learning	**Strategic Networks: The How of Learning** Students must interact with the content to really learn the material. For all students to be able to express what they know, there must be options for expression accessible to all abilities, so that all students may play an active role in their learning
ACCESS	**Provide options for Recruiting Interest** • Prompt students to ponder what most interests then about malaria using anonymous questions with the tool PollEverywhere during class meetings (7.1) • Invite students to research a current or historical anti-malarial campaign of their choice, depending on their region/organization/time period of interest as an alternative to the essay question (7.2)	**Provide options for Perception** • Provide captions for all videos using Knowmia to provide alternatives for auditory information (1.2)\ • Provide searchable video transcripts (1.2) • Ensure that all video and photo thumbnails include appropriate alt-text (1.3) • Provide Google slides slideshow of all visuals, including text boxes, that has detailed alt-text for key images (1.3)	**Provide options for Physical Action** • Remove all time limits on activities, so that students who need more time due to mobility issues can participate fully (4.1) • Accept voice recordings in lieu of text (4.1) • Post resources for Blackboard's keyboard shortcuts (4.2) • Link to TTS tools for students to download such as Google Read and Write (4.2)

BUILD	**Provide options for Sustaining Effort and persistence** • Display objectives prominently at the start of every module AND video (8.1) • Release content gradually over the period of a week to encourage breaks between learning using Blackboard's Adaptive Release feature (8.1) • Assign a reflective journal activity (8.2) • Enable participation in an open discussion board where learners may engage with each other about the material (8.3)	**Provide options for Language, Mathematical Expressions, and Symbols** • Include a glossary of terms for key vocabulary in the content videos (2.1) • Link to supporting materials for students who may not have a scientific background through interactive hotspots inside the video (2.1) • Attach concept maps using Mindomo that clarify structural relationships between key concepts (2.2) • Link to an interactive, virtual outside resources such as an interactive malaria life cycle activity to provide another way to learn the content (2.4)	**Provide options for Expression and Communication** • Allow students to express themselves in the discussion fora through writing, storyboarding, concept mapping, video, or voice recording (5.1) • Create a class wiki for the module, allowing students to add in material in a variety of formats that the entire class may view (5.2) • Ensure that students have access to dictionaries and Text-to-speech software while completing the exam (5.2) • Provide optional resources to use as scaffolds for differentiated instruction, such as glossaries and advance organizers with Mindomo (5.3)
INTERNALIZE	**Provide Options for Self-Regulation** • Provide opportunity to revisit goals and contributions discussed in week 1. Re-convene with original discussion groups to revisit their goals and discuss how their expectations have developed (9.1) • Discuss during class potential coping mechanisms for learning from such difficult, morbid material at a challenging time. Check in with	**Provide options for Comprehension** • Provide a pre-test before key videos using quizzing in Camtasia to prime working knowledge of subject area (3.1) • Encourage use of a provided advance organizer created by Mindomo to use as a study resource to fill in while watching content videos (3.1, 3.4) • Use visual and verbal cues such as	**Provide options for Executive Function** • Display module objectives at the front and checklists at the bottom encourage students to set goals and plan for completing the module (6.1) • To provide a structure for studying and understanding malaria as a disease, provide a blank chart of the 'areas of responsibility' (6.2, 6.3)

	students and discuss learning obstacles and strategies for overcoming them in discussion groups or in a discussion forum (9.2)	text boxes with key vocabulary to signal important concepts as they are taught in the videos (3.2) • Chunk information, releasing packs of videos progressively using the 'Make available on set date' feature, in order to strategize spaced learning for processing optimization (3.3)	• Embed concept checks in videos using Camtasia's interactive quizzing tool that provide feedback and explanations (6.4) • Prompt students to submit thoughtful questions to the guest speaker that reflect their individual interests and knowledge gaps (6.4)
GOAL	*Expert learners who are:* **Purposeful and Motivated** The design will be successful if students demonstrate that they've made meaningful connections between the module content and their own lives and interests. Motivation will be evident based on the depth of discussion during class meetings and the quality of thought in the reflective assignments. Furthermore, this participation should be persistent, distributed across the discussions and activities associated with the module.	*Expert learners who are:* **Resourceful and Knowledgeable** Design of multiple means of representation will be successful if students demonstrate their knowledge related to the course objectives. Opportunities for demonstration of knowledge include completion of advance organizers, responses to quizzes and open-ended questions, performance on assessment, and the quality of questions asked during class. Interaction with the course material is another indicator of understanding; if students watch videos to completion and successfully complete advance organizers, they will have successfully engaged with the material, and processed it effectively enough to demonstrate knowledge transfer.	*Expert learners who are*: **Strategic and Goal-Directed** A successful design will be demonstrated if the students as a whole make use of multiple the options available to them that they strategically choose based on their own abilities. If every student pursues a written journal reflection on the same exact topic, this would show that the design didn't make explicit the variety of options available for completion and the array of choices for student focus. Effective strategic techniques would also be demonstrated by evidence of appropriate time-management. For example, completion of assignments is distributed throughout the three weeks and the videos are viewed multiple times on different days. Overall, variety in student responses and engagement choices for completion of assignments as well as distributed completion of assignments would indicate successful design.