Module 1: Overview of Constructivism

1	Title Slide	Welcome to the Overview of Constructivism module in the Learner-Centered teaching series. To advance to the next slide, select the "forward" arrow located on the play bar at the bottom of your screen.
2	Introduction	"Constructivism is a philosophy of learning founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world we live in." In a constructivist classroom, a teacher will search for students' understandings of concepts and then structure experiences for students to refine or revise their understandings. This can be achieved by "posing contradictions, presenting new information, asking questions, encoring research, and/or engaging students in inquired designed to challenge current concepts" (Brooks & Brooks, 1999). In this module, we will be discussing learner-centered environments as it relates to constructivism and the classroom implications of using a constructivist approach in a science-based classroom.
3	Learning Objectives	By the end of this module, the learner will be able to incorporate constructivist principles into their science-based classrooms.
4	Defining Constructivism	As a learning theory, constructivism was stemmed from Piaget's stages of development, Vygotsky's beliefs regarding learning and development, and Dewey's philosophy of bringing real-world experiences to the classroom. "The essential core of constructivism is that learners actively construct their own knowledge and meaning from their experiences" (Fosnot, 1996; Steffe & Gale, 1995; as cited in Doolittle & Camp, 1999). "Essential aspects that teachers do to set their constructivist learning environments apart from traditional classroom settings include: • Creating an authentic learning environment for students • Involving social interactions in instruction • Making content and skills relevant to the learner • Linking new knowledge to prior knowledge • Encouraging students to become self-regulatory • Transitioning teacher roles from instructors to facilitators of learning • And giving students several routes in which they can retrieve knowledge and connect the information to 'many possible worlds'" (Doolittle & Camp, 1999). To learn more about how constructivist classroom roles differ from traditional classrooms, click the link on the slide. **See file**
5	Learning Check	After looking at the file regarding constructivist and traditional classrooms, let's take a moment to reflect on our own classroom. Write down some characteristics your classroom environment shares with both constructivist and traditional classrooms.
6	Student-	Additionally, constructivism implies different roles among students and

	Centered Design	teachers than a traditional classroom requires. Since constructivism is student-centered, instructors take a more passive facilitation role, whereas students become more active and engaged. Note the different roles of teachers and students in a student-centered learning environment. Teachers wear several hats in a constructivist classroom, but more important are the specific tasks within those roles. Teachers pose relevant problems to students, emphasize hands-on, real-world experience, and provide multiple modes of representation for students to transfer their learning. On the other hand, students are tasked with developing their own goals and taking ownership for their learning (Christie, 2005).
7	Student-Centered Design	As we transition into discussing specific strategies that can be used in the classroom to promote constructivism, click the document on the slide to see a visual model of the different learning activities and responsibilities of teacher-centered and student-centered classroom environments. **See file**
8	General Applications	Other general applications of the constructivist learning environment include: • Teaching big concepts • Providing multiple representations of material • Avoiding oversimplification of instruction • Focusing on knowledge construction, not reproduction • Presenting authentic tasks • And providing real-world experiences
9	Constructivist Checklist	The following checklist, as presented as a link on the slide, is designed to serve as a simple instrument to observe some of the ways in which constructivist characteristics are present in learning projects, activities and environments. It may not always be possible to observe all of the characteristics, as certain projects may emphasize fewer characteristics depending on the teacher and the group of students. For this reason, the checklist serves a limited purpose. Nonetheless, it can provide some insights into how constructivist concepts might be incorporated in the classroom (Murphy, 1997). **See file**
10	Review	As we come to a close, let's consider all we have covered so far. We started this module by describing the characteristics of constructivism, and how it relates to a traditional classroom context. We then explored how constructivism coincides with student-centered design. In an upcoming module, we will be diving deeper into specific strategies we can incorporate into our classroom to give students a learning environment in which they can construct their own learning.
11	Sources	Christie, A. (2005). Constructivism and its implications for educators. http://alicechristie.com/edtech/learning/constructivism/index.htm

		Doolittle, P. E., & Camp, W. G. (1999). Constructivism: The career and technical education perspective. *Journal of Career and Technical Education, 16*(1). Murphy, E. (1997). Constructivist checklist. Retrieved from http://www.ucs.mun.ca/~emurphy/stemnet/cle4.html von Glasersfeld, E. (1984). An introduction to radical constructivism. In P. Watzlawick (Ed.), The invented reality (pp. 17-40). New York: Norton. von Glasersfeld, E. (1998). Why constructivism must be radical. In M. Larochelle, N. Bednarz, & J. Garrison (Eds.), Constructivism and education (pp. 23-28). Cambridge: Cambridge University Press.
12	Credits	Thank you for viewing this module.