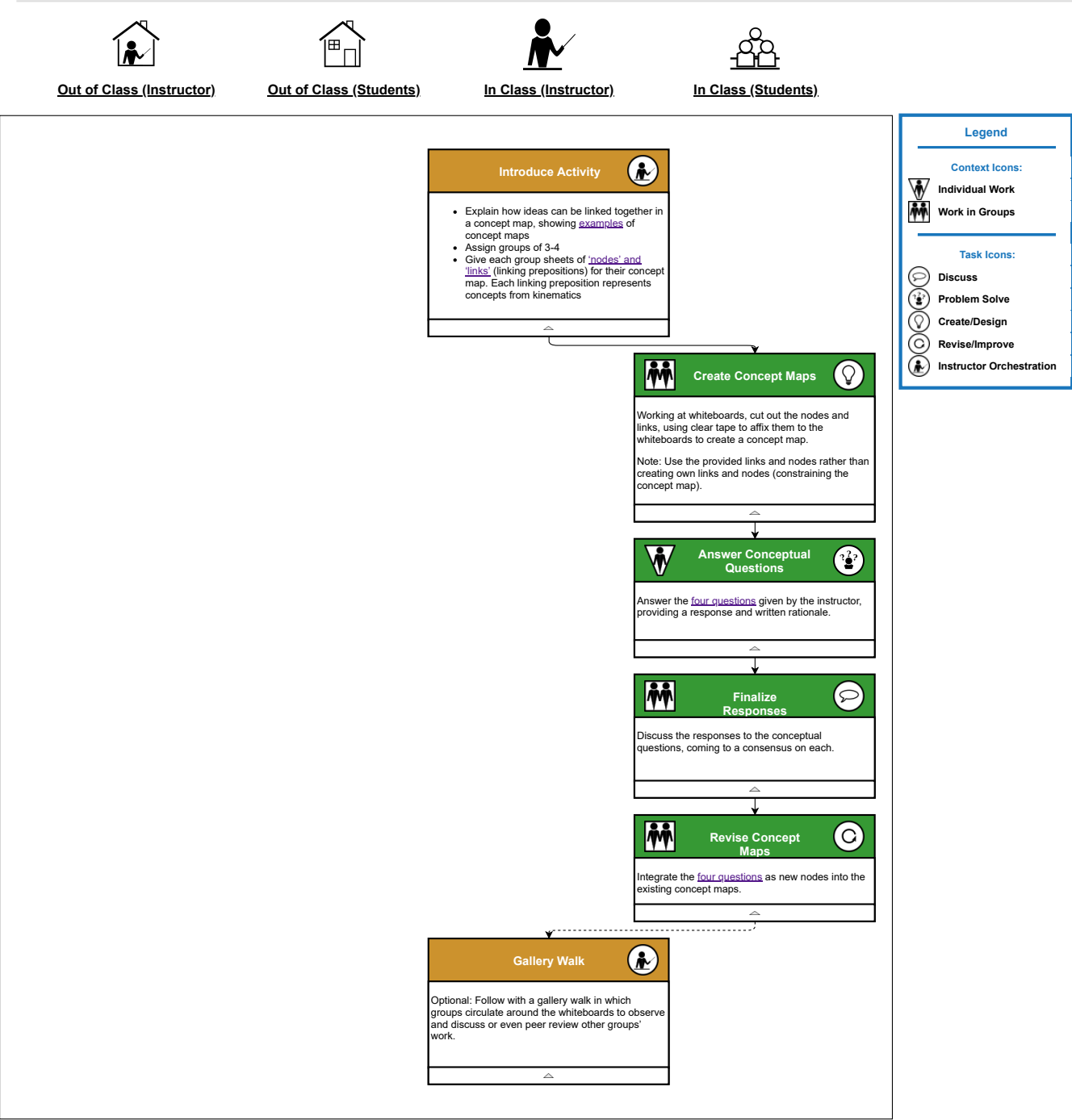


# Kinematics Concept Mapping

By Michael Dugdale

Description:

In this single-class activity, students create a concept map representing their knowledge of kinematics using "nodes" and "links" (linking prepositions) and conceptual problems. They learn about the relationships between the various equations and concepts learned in kinematics and how the problems relate to these concepts. See a full description [here](#).



Introduce Activity

- Explain how ideas can be linked together in a concept map, showing [examples](#) of concept maps
- Assign groups of 3-4
- Give each group sheets of ["nodes" and "links"](#) (linking prepositions) for their concept map. Each linking preposition represents concepts from kinematics

Create Concept Maps

Working at whiteboards, cut out the nodes and links, using clear tape to affix them to the whiteboards to create a concept map.  
  
Note: Use the provided links and nodes rather than creating own links and nodes (constraining the concept map).

Answer Conceptual Questions

Answer the [four questions](#) given by the instructor, providing a response and written rationale.

Finalize Responses

Discuss the responses to the conceptual questions, coming to a consensus on each.

Revise Concept Maps

Integrate the [four questions](#) as new nodes into the existing concept maps.

Gallery Walk

Optional: Follow with a gallery walk in which groups circulate around the whiteboards to observe and discuss or even peer review other groups' work.

Legend

Context Icons:

Individual Work

Work in Groups

Task Icons:

Discuss

Problem Solve

Create/Design

Revise/Improve

Instructor Orchestration