

CINDERELLA



Cinderella needs to get to the ball but her Fairy Godmother is nowhere to be found! Can you help her get there in time?

Materials: Book “Cinderella” DUPLO wheel and axle elements small figure to represent Cinderella-one per group hula hoops

Vocabulary: wheel and axle carriage simple machine vehicle

Intro: Review rules and process of engineering again. Tell students that today they will be listening to another story that may be familiar to them. Who lost a glass slipper at the Ball? Cinderella! Today you will help Cinderella get to the Ball!

Story: Read aloud “***Cinderella***” and discuss elements of the story, problems in the story, and how the problems were solved.

Challenge: Ask students to retell how Cinderella wound up at the Ball. Have a student explain how a carriage, or a car, rolls. Demonstrate and explain the concept of a wheel and axle. Tell students that wheels and axles are examples of simple machines. A simple machine is something that makes work easier. Refer

back to ***the Caveman*** Engineering Strip that shows him inventing a weapon with which to fight the dinosaur. Say: “ Cinderella rode to the Ball in a Pumpkin Carriage – but not today! Unfortunately for the Cinderella, her fairy Godmother is nowhere to be found. You must build something for Cinderella to ride in. Each group must construct a “vehicle” for Cinderella to ride in. A vehicle is something that can be used for transportation or taking something from one place to another. The vehicle may be pulled or pushed. Cinderella needs to fit inside comfortably and in a safe way. She should NOT fall out of the vehicle when it moves.” How will they do this? How will they work together to make sure everyone has a part in the construction? The vehicle DOES NOT have to be a pumpkin – what are some other familiar things they could use?

Build: Divide students into work groups. If you like, assign one student to be the “foreman”. The foreman will make sure that everyone works together and presents questions to you on behalf of the group. Monitor each group by observing student interaction, and by asking pertinent questions such as “How can Cinderella fit in that carriage?” “How can you make it bigger, smaller, faster, slower, etc?” Allow students approximately 20 minutes to build.

Debrief: Gather the students back together and discuss problems they had and how they solved them. Ask “What worked best?” “What didn’t work?” “What did you wish you had to work with?”

Presentation: Visit each group’s construction. The group presenting are called the “***Sitters***” because they sit and describe what they’ve done. The teacher and the rest of the class are called the “***Standers***” because they stand around the presenters in a circle to observe and ask questions. The standers and the sitters change depending on the group presenting. Have students demonstrate their construction by putting Cinderella in the vehicle and making it move. Did anyone use the wheel and axle?

