

## Pre-Launch Lesson Plan

### GRADE 5, PLANET R | REALISTIC ROCKETS

#### Objectives

- Students reflect on and begin to express their own work-related interests and preferences and how that might affect their career choices.
- Students explain the importance of working cooperatively with others to complete a task.
- Students identify effective group interaction strategies.

#### Preparation & Materials Needed

- Pipe cleaners, enough for 10 pipe cleaners per student team (three - four students).
- Chalkboard/whiteboard and markers.

#### Lesson Plan

Total Time: 16-20 minutes

<b>INTRODUCTION</b>  3-5 Minutes	<p>Tell students that today they will be visiting Planet R. See if students can remember some traits, work settings or occupations common to those who work on Planet R. Help them remember that people on Planet R:</p> <ul style="list-style-type: none"><li>• <i>Like doing things, testing things, and fixing/repairing things.</i></li><li>• <i>Often enjoy working outdoors and with their hands.</i></li><li>• <i>Frequently have careers in construction, farming or gardening, advanced manufacturing, auto repair, and other related occupations.</i></li></ul> <p>Ask students to raise their hand if they think they may enjoy working on Planet R. Inquire of those who raised their hands what occupation or occupations might interest them the most.</p> <p>Share with students that while they are visiting Planet R they will have a chance to explore their interests in a deeper way.</p>
<b>ACTIVITY</b>  10-15 Minutes	<p>Tell students that to prepare for their journey they will be working together in small groups to construct something out of pipe cleaners. Explain that you will give them further instructions once they are in groups but share that it is important that students work together with their teammates since the activity will be timed.</p>



**ACTIVITY****(continued)****10-15 Minutes**

Divide the class into groups of three or four students. Share that each team will have six minutes and 10 pipe cleaners to construct a rocket that can stand on three legs. Tell teams that they can be creative with their rocket designs as long as the rocket can stand on its own.

Distribute the pipe cleaners and have teams begin. After six minutes, instruct teams to stop no matter if they are finished. Have teams show their rocket to the class and, one at a time, demonstrate whether their rocket will stand on its three legs.

To extend the lesson, have teams exchange rockets so the other team can work to “improve” or “repair” the original design. This way, students have a chance to experience characteristics of Realistic occupations where workers build/do things as well as repair/fix things.

Use the following prompts to process the activity with the class:

- *What did you think of this activity? Did you like it/not like it?*
- *Have any of you built something or fixed something in the past? If so, what was it? How was the experience?*
- *How did your groups interact? Did everyone get a chance to contribute?*
- *What are some good ways to work in a group?*

Help the class identify effective group interaction strategies. Explain the importance of working cooperatively with others to complete a task.

**CONCLUSION****1-2 Minutes**

Share with students that they will soon be taking another rocket, the Kuder Galaxy rocket, to visit Planet R where they will hear more about realistic occupations. They will also have a chance to see how well their interests match those of the people on Planet R.