

# TARWATER ELEMENTARY SCHOOL STEM LAB

Activity ID: **D-1**

Activity Name: **Engineer A Coaster**

## MATERIALS:

Materials Provided in Bin:

Item:	Quantity:	Notes:
Lesson Plan	1	
Magnetic track pieces 15"	4	
Magnetic track pieces 10"	6	
Discs	3	
Challenge cards	5	
Goal box	1	

Materials In STEM lab or Classroom (Common Items):

Item:	Quantity:	Notes:
None		

Materials Teacher/Parents Need to Provide:

Item:	Quantity:	Notes:
None		

## WHAT ARE WE DOING?

The Engineer-A-Coaster Activity Kit is a fun, hands-on way for children to explore concepts like size, speed, gravity, angles, and motion. Through trial and error, children will explore STEM concepts by experimenting with track angles and placement and observing result as the discs roll along the tracks into the goal box

## VIDEOS / LINKS:

See Lakeshore Activity Kit brochure for troubleshooting tips.

## SAFETY NOTES:

The tracks must be used on a perfectly vertical surface. The tracks are designed with an open space at one end. To orient a track in the opposite direction, simply flip the track over to find the correct angles and position successfully to complete the challenge.

## SCIENCE TERMS:

N/A

## STEPS:

Step 1: The included challenge cards will help guide children through different track designs of varying difficulty. Each challenge card features an illustration of a track design for children to replicate on a magnetic surface.

Step 2: The track layout of each challenge is only a guideline for which track pieces to use and in which order. Children should fine-tune their track to find the correct angles and positions to successfully complete each challenge.

## QUESTIONS TO ASK STUDENTS:

What will happen if I make the track steeper?

What do you think will happen if I put in two discs at the same time?

Why did the disc move uphill?

## CLEAN-UP:

Return materials to bin

Throw away any trash

IF RUNNING OUT OF A SUPPLY IN THE BIN, PLEASE  
CONTACT LAURIE JONES IN THE OFFICE (X4307)  
[JONES.LAURIE@CUSD80.COM](mailto:JONES.LAURIE@CUSD80.COM)