



# V7 - Experiment Procedure "Team Power"

## **GENERAL INFORMATION**

Principal Investigator

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### SHORT EXPERIMENT DESCRIPTION

This activity differs from the others. It is not meant to be used to fill an entire class - it lists some team building exercises/activities and offers some stories/facts that can be used as a starting point for discussing the essential importance of teamwork in science.

### HARDWARE CHECKLIST

Chairs (one per person)
1 long lightweight, rigid, thin stick (wooden beam/metal rod, tent pole)
Uncooked spaghetti
Marshmallows
Tape (1m per group)
String (1m per group)
Paper (one sheet per person)
Pens

## **PROCEDURE**

## **BUS TRIP**

Step	Action	NOTES	Duration	Check
1	Place as many chairs as there are participants in two rows, facing each other, so that two people sitting are almost touching knees	Uneven number: Place one chair in front for a bus driver	5 min.	
2	Start activity by telling students about this great new invention, a bus that runs on positive	Explain the concept of a "positive energy bus" that runs on positive feedback.	2 min.	

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	energy and doesn't pollute the air		
3	Ask them to get on the bus, i.e. to sit down on the chairs		1 min.
4	Ask the participants in one row to start giving positive feedback to the students opposite them	What i like about you What i appreciate about you I really admire I am thankful for You are really good at	~10 min. (based on group size)
5	Time can vary for feedback depending on group size and on how long you want the activity to last		
6	After e.g. 45 secs feedback, then each student moves one chair (including bus driver's seat) in the same direction	Note that an entire round must be completed, so that each student receives Feedback	45 sec.
7	Ask students how they felt during activity and what happens when one gives/receives positive feedback	Optional: additionally have them set a goal to give someone positive feedback today, e.g. in their family or friends after school	10 min.

# HELIUM STICK

Step	Action	NOTES	Duration	Check
1	Place stick on floor and have the group stand in two rows facing it, with stick acting as a "divider"	The goal is to lower the stick to the ground evenly (i.e. not drop one end then the other, the entire stick at roughly the same time)	2 min.	
2	The students then hold out their index fingers in straight line at shoulder level	Index fingers MUST remain in contact with the stick from below at all times. Participants MAY NOT curl their fingers or grab the stick in a similar way	5 min.	
3	Teacher then places stick on their fingers and the exercise begins		1 min.	
4	Ask questions for students to reflect on and answer, such as: Why did the stick go up and not down? How did you fix the problem? Which roles did each person fill? Was a role competed for? How was the communication? Was the task difficult and if so, what made it difficult? etc	Ask reflective questions about group roles, communication, challenges, and problemsolving.	10 min.	

## MARSHMALLOW CHALLENGE

Step	Action	NOTES	Duration	Check
1	GOAL: Make the tallest free-	Build the tallest free-standing tower using		
	standing tower with	spaghetti, tape, string, and a marshmallow		
	marshmallow on top	(must be on top).		
2	Give students 20 spaghetti, 1m	Per group	3 min.	
	of string, 1m of tape and 1			
	marshmallow			

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3	Set timer for 18 min. and let students build tower	<18 min.	
4	Discuss group dynamics,	10 min.	
	strategies, and challenges faced		
	during the activity.		

## APPRECIATION EXERCISE

Step	Action	NOTES	Duration	Check
1	Have students form groups of			
	approximately 6 per group			
2	Each group places as many		5 min.	
	chairs as there are group			
	members in circle and each			
	student needs a pen and a			
	sheet of paper			
3	Everyone takes a seat and		1 min.	
	writes own name on the			
	bottom of the sheet			
4	Give paper to student on the left		30 sec.	
5	They then write one or two	can also be in keywords	3 min.	
	short sentences about what	-		
	they appreciate about the			
	person whose name is at the			
	bottom of the sheet			
6	Fold top of paper neatly, so that		30 sec.	
	the feedback is not visible			
	anymore			
7	Repeat steps 4, 5 and 6 until		10 min.	
	everyone has their own sheet			
	again			
8	Participants read their		5 min.	
	comments privately			
9	Ask everyone to tell the others		10 min.	
	the positive words/strength/etc			
	that they liked best			
10	Optionally, assign homework to			
	write anonymous positive notes			
	to someone outside the group.			

# **NOTES:**

- Adapt activity durations based on group size.
- Emphasize the importance of reflection and open communication throughout the exercises.
- Highlight real-world examples of teamwork in science to contextualise the activities.