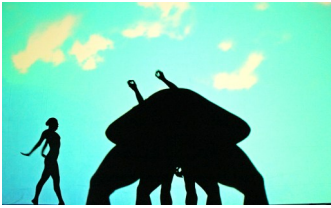


SHADOWING the CURRICULUM

Language Arts



- Catapult is made up of a series of short stories told through dance, theater, music and imagery. The stories are identifiable and accessible.

Tie ins include Narrative and story structure such as **NARRATIVE ARC; IDENTIFY PLOTS; CONFLICTS; CHARACTERS AND RESOLUTIONS**

Social and Emotional Learning

There are many different characters in each of Catapult's narrative works

- Tie ins include **EMPATHY** and **PERSPECTIVES** - students will be asked to analyze a **CHARACTER'S MOTIVATIONS** to help them understand **DIFFERENT VIEWPOINTS** and develop empathy.
- **COLLABORATION:** Acknowledge that a performance, especially a shadow performance, is a collaborative effort involving many people working together. Students will be asked to discuss the roles and responsibilities required to put on a show. And how they must work together to create a shadow image. Can students identify how many people are in the image of an elephant for example and can they guess where dancers are positioned to create the image? Have them fill in an outline of an Elephant with their best guess of how we do it.
- **SELF REFLECTION:** Use the performance as a chance for students to reflect on their own lives and how their experiences relate to the characters or themes presented on stage.



Science



- The Catapult performance is very physical and includes ballet, modern and lifts (partnering)
- Dancers are athletes and students can examine the **PHYSICS OF MOVEMENT** such as **FORCE, BALANCE, MOMENTUM** and **GRAVITY**

- **ENVIRONMENTAL SCIENCE** comes into play because light and shadow are critical to the illusions that Catapult creates. Students can be asked to explore ideas around light and shadow such as **IDENTIFY AND SORT OBJECTS AS: REFLECTIVE, TRANSPARENT OR OPAQUE; DESCRIBE HOW THE DISTANCE BETWEEN AN OBJECT AND A LIGHT SOURCE AFFECT SHADOW SIZE; EXPLORE THE EFFECTS OF FORESHORTENING BY CHANGING THE ANGLE AT WHICH LIGHT STRIKES AND OBJECT**

Math

- Students can use **ESTIMATION** to determine the height of an object or person by measuring the shadow and factoring in the distance from the light source
- Students can discover the **THROW RATIO** of a light source by measuring the width or height of the light field on a wall and factoring in the distance to the light source. EG. A light source that throws a light field of 1 foot wide from 1 foot away has a throw ratio of 1:1 Students can also determine the **ASPECT RATIO** of a light source by measuring the height and the width of the light field on a wall. They might be surprised to learn that moving the light source closer or farther away does not change the aspect ratio or the throw ratio. This can lead to a better understanding of what ratios are and how important they can be.

