

Kevin the Clown's Funny Forces!

Now that you have seen Kevin in action try to answer these questions.

Friction:

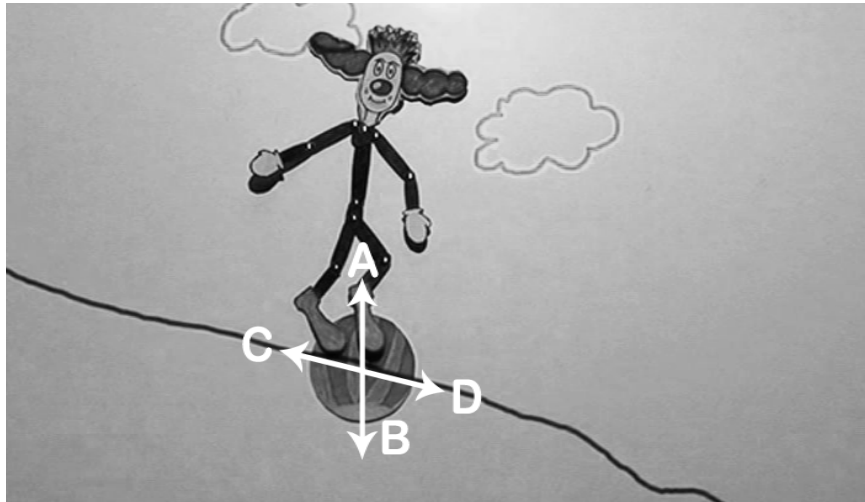
1. What forces are at points A, B, C & D?

A: _____

B: _____

C: _____

D: _____



2. Why does the clown slow down?

3. Why does the clown speed up when he rolls on the frozen lake?

4. Can you explain your answer using the word energy?

Balanced & Unbalanced:

1. What is the weight in newtons of the 1000kg mass of gold on earth?
2. What does the clown do to balance the feathers and the monkey?

Displacement:

1. Why is there a small splash when the clown enters the water?
2. What happens to the water level in the pool and why?
3. Think of 2 reasons why the elephant makes a bigger splash?

A:

B:

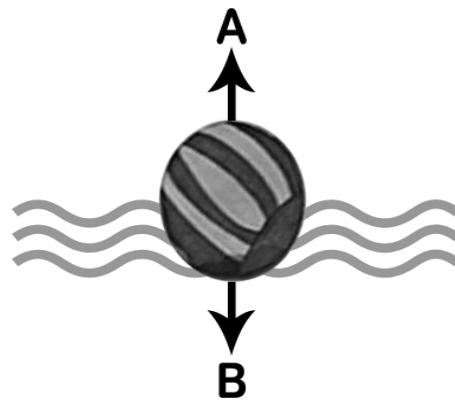
4. Why has more water spilled out of the tank?

5. Why does the ball float?

6. Name the 2 forces A & B?

A: _____

B: _____



7. What word describes a pair of forces like this, that are equal in size but opposite in direction?

8. Explain using key words why the sword sinks?

Pivots:

1. What has been altered to make the clown go higher?

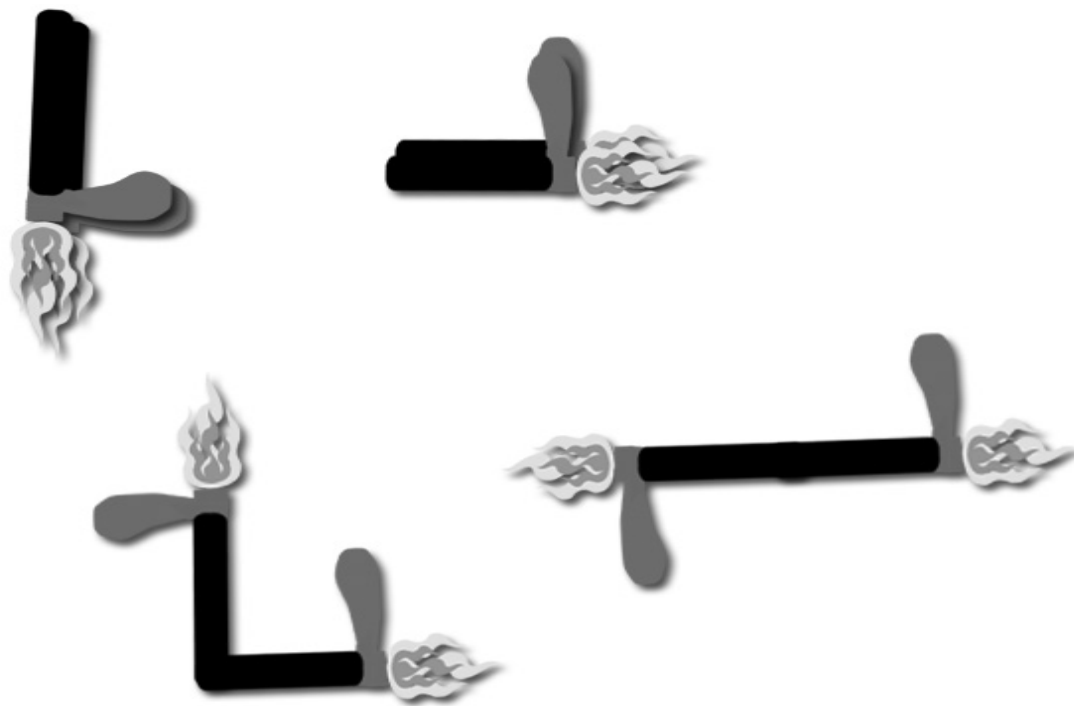
Gravity:

1. What force keeps the clown in orbit around the earth?

2. Why does the clown keep going when he's switched off his booster boots?

3. Why doesn't the clown sink when he's not using his booster boots?

4. Look at the diagrams and draw an arrow to show the direction the clown will travel?



5. Why is the mass much easier to lift on the moon than on earth?

6. Why does the clown struggle to lift such a small mass on jupiter?

7. Why is there more gravity on jupiter?