

Name: _____ Date: _____ Period: _____ Page: _____

Different Kinds of Forces Lab Activity

Objective: _____

Research:

Force: _____

Contact Forces: _____

Noncontact Forces: _____

THINK: How would you get a toy boat to move in a bathtub? Name 3 ways:

1. _____
2. _____
3. _____

DO: In each of the following activities, identify the agent, receiver and the effect of each force. Is the force a contact or noncontact force? Name the force that is being demonstrated.

ACTIVITY 1

1. Push the empty beaker slowly into the water in the sink. Keep its open end facing up.
Agent: _____ Receiver: _____
Effect: _____
2. Submerge the beaker and let the water fill the beaker.
3. Lift the beaker out of the water.
Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____

ACTIVITY 2

1. Put 4 paperclips under an inverted (upside down) beaker.
2. Bring a magnet near the beaker and try to lift the paperclips to the top of the beaker.
Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____

ACTIVITY 3

1. With one hand, hold up two plastic strips.
2. Rub both sides of the strips with the piece of wool. Allow the strips to hang freely again and observe any forces at work.

Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____

ACTIVITY 4

1. Drop a piece of flat and a crumpled piece of paper at the same time from the same height.

Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____

ACTIVITY 5

1. Hang the mass on the thinner rubber band.
2. Hang the mass on the thicker rubber band.

Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____

ACTIVITY 6

1. Attach the open paperclip with the rubber band to the book with the string tied around it.
2. How long must the band stretch before the book starts moving? _____ cm
3. Try again with another book placed on top of the first one. _____ cm

Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____

4. Place the books on the 4 drinking straws and repeat the activity.
What has changed? _____

ACTIVITY 7

1. Make a ramp with the board and a book.
2. Find out how far the can will roll on the floor before stopping. Measure from the end of the board until it stops. _____ cm
3. Repeat the activity by rolling the can over a towel. _____ cm

Agent: _____ Receiver: _____
Effect: _____
Contact or noncontact force? _____