



# ROCKET ACADEMY WORKSHEET

This worksheet below is just for fun and for your own use and will not be turned in. Use it to help guide you through the Rocket Academy.

SCOUT NAME: \_\_\_\_\_

## THE LAB

### Create and fly three different types of airplanes!

Record your findings and improve your design! Make new airplanes by altering the plane. Then how does the plane improve by creating a catapult for it?

Which airplane design do you think will fly the farthest? (circle one)

**THE ARROW**

**THE BUZZ**

**THE STABLE**

**Why?**

\_\_\_\_\_

| AIRPLANE TYPE | NO CATAPULT |         |         | CATAPULT |         |         |
|---------------|-------------|---------|---------|----------|---------|---------|
|               | TRIAL 1     | TRIAL 2 | TRIAL 3 | TRIAL 1  | TRIAL 2 | TRIAL 3 |
|               |             |         |         |          |         |         |
|               |             |         |         |          |         |         |
|               |             |         |         |          |         |         |

# ROCKET ACADEMY: THE LAB



**Build your own Straw Rocket! Use the printable worksheet in the Lab to guide you through this experiment.**

**Build and launch a chemical reaction rocket.**

What happened when you added the alka-seltzer or baking soda to the liquid (water or vinegar)?

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**If you're attending Family Adventure Camp or a new Cub Scout, build your model rocket!**

- All new Scouts in Buckeye Council receive a free model rocket when joining.
- All youth participants at Family Adventure Camp will receive a free model rocket.

**Make sure to attend Family Adventure Camp to launch your rocket!**

## LAUNCH PAD



What do you think is the MOST interesting thing about space?

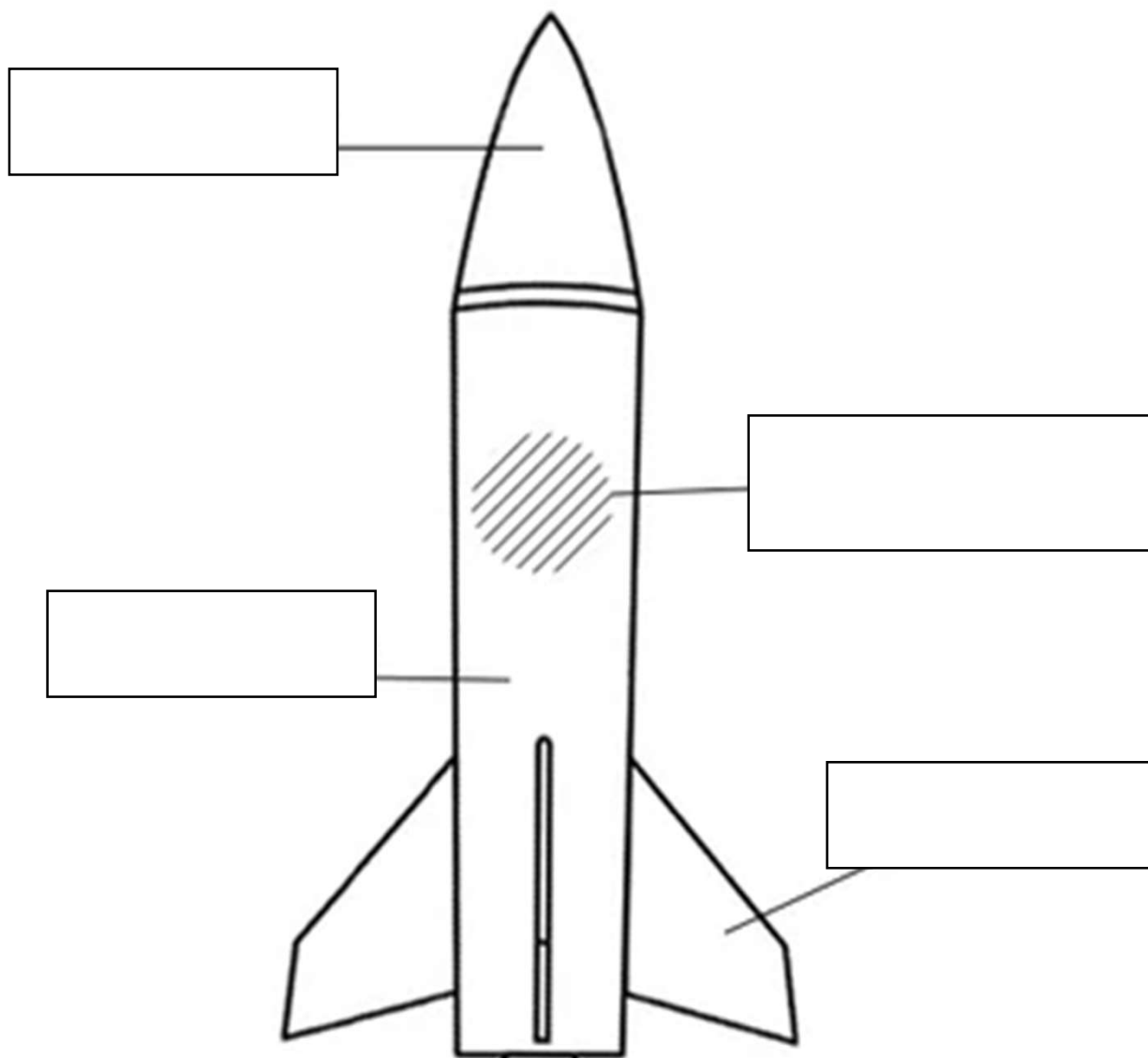
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# ROCKET ACADEMY: LAUNCH PAD



Color and label the parts of the rocket below.



## ITEMS:

Body

Nose Cone

Shock Cord

Fins



Fill in the blanks below for Newton's Three Laws of Motion.

1. An object in motion stays in \_\_\_\_\_. An object at rest stays at \_\_\_\_\_.
2. \_\_\_\_\_ = Mass x Acceleration
3. For every action there is an equal and opposite \_\_\_\_\_.

KEY:    motion        reaction        force        rest

Planets do not twinkle like stars do, they have a constant light. What five planets can you see from Earth?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

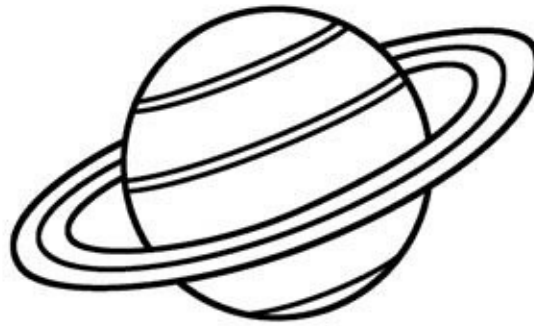
# ROCKET ACADEMY: LAUNCH PAD



**Color the planets below! Circle the ones you can see from Earth.** *HINT: Use the previous page to help you.*



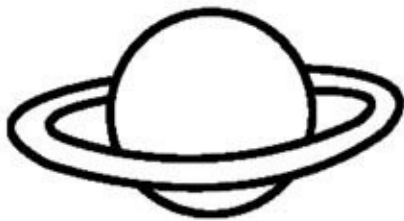
Jupiter



Saturn



Earth



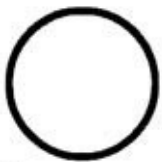
Uranus



Venus



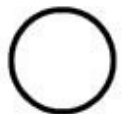
Mars



Mercury



Neptune



Pluto