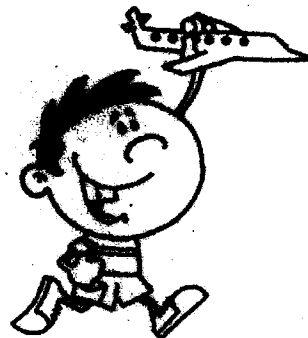


AEROSPACE DAY





PREK, K 1, 2, 3, 4, 5

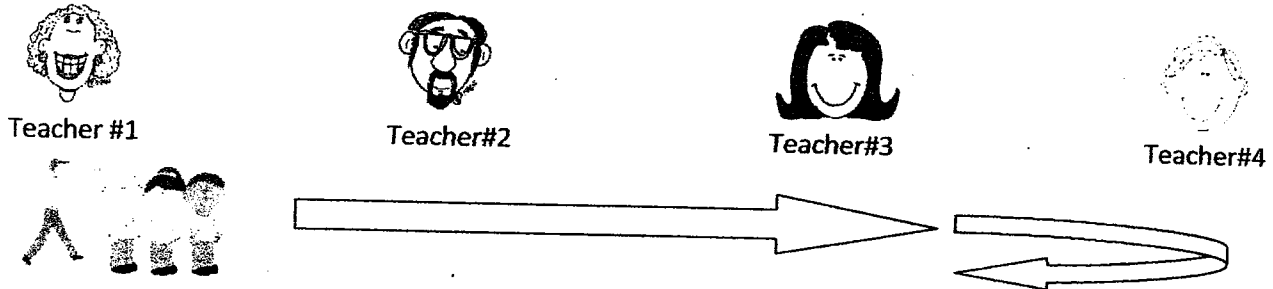
Grade Level Check List

1. **Select method of rotation to use.**
(Please refer to handout entitled "Rotation Methods" for descriptions of rotation options.)
2. **Determine start and end time .**
(It might be necessary to resume after recess, lunch, and/or intervention.)
3. **Select 4 activities.**
(Use the ones listed on the attached handout or replace them with ones you prefer.)
4. **Determine time allotment for center activities .**
*(Ex: 20 minutes per activity + 5-10min for lining up and rotating)....or
(Ex:30 minutes per activity + 5-10 min for lining up and rotating)....or
(Ex:30 minutes per activity. No rotation) ...or....*
5. **Gather supplies needed for activities.**
6. **Today or by this Friday, give any worksheets you want photocopied to Mrs. Sharif.**
 - (a) Clip copy paper to worksheet. (Extra paper will be returned.)
 - (b) Attach note stating
 1. your name. (I need know to whom to return the copies.)
 2. number of copies needed.
 3. special notes. (Ex: 2 sided)
7. **Familiarize yourself with project/activity by making a sample or viewing it.**
(Make the paper airplane. Can it be made it allotted time? Will students have enough time to test it a few times? How will you handle clean up time?)
8. **Prep and store supplies/materials, if necessary.**
(Ex: Teachers of lower grades might need to precut.)
9. **Contact 3 -4 parents to assist on Aerospace Day - at least 1 parent per class.**
Send Reminder home, Friday or Monday prior.
*(1 parent per class However, a parent is likely not needed for DVD activity, but can help elsewhere.)
(Duties: Parents help students implement task correctly and answer questions as needed. Also, once teacher has students lined up in an orderly manner, parent can walk them from class to class, if needed.)*

ROTATION METHODS

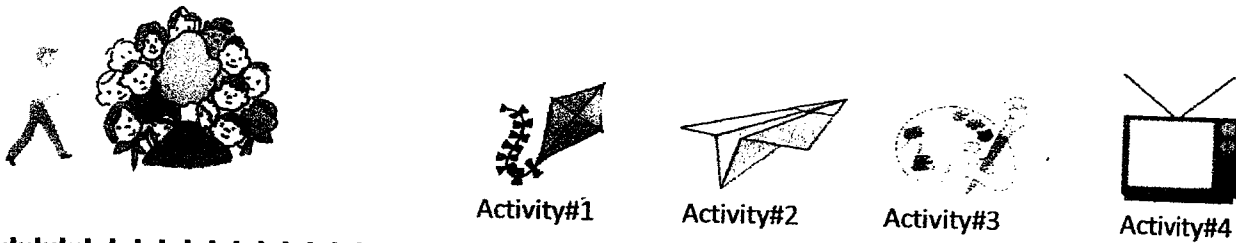
METHOD #1

- Teacher is stationary (remains in classroom). Teacher runs the same activity 4 times.
- Students rotate from classroom to classroom.
- Parent volunteer assists.



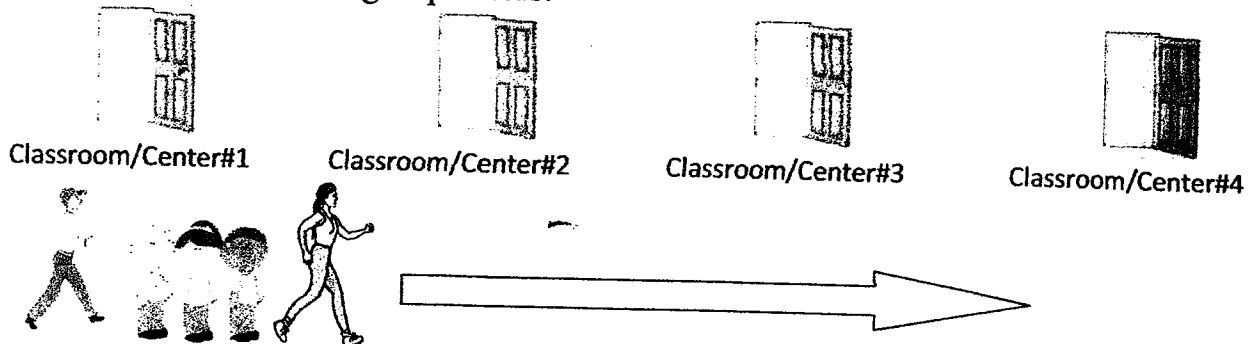
METHOD #2

- Teacher & students are stationary (remain in classroom). Teacher runs all 4 activities.
- Parent volunteer assists.



METHOD #3

- Each classroom serves as a center.
(ex: classroom #1 is used for Loop Plane Activity)
(ex: classroom #2 is used for painting picture of space shuttle.) ...and so on.
- Teacher, students and parent volunteer rotate. Teacher runs the activity already set up in each classroom that the group enters.



REMINDER TO:

PREK & KINDERGARTEN ACTIVITIES

1. DVD + CLASS DISCUSSION

DVD Options to select from:

1. NEWS COVERAGE OF SPACE SHUTTLE COMING TO CALIFORNIA

(This DVD is supplied by Mrs. Sharif.)

(Types of discussions questions might be: What is a shuttle? Where did it go? What is NASA? How would you persuade NASA to bring and store the shuttle in California? What was your favorite part of the experience? Why? What kind of job do you have to get to be part of the shuttle program? What skills do you need to learn in school that would help you achieve this goal?...etc)

2. MAGIC SCHOOL BUS - SPACE ADVENTURES (approx: 30-35 min per episode)

(a) Episode 1 "Gets Lost in Space"

(b) Episode 2 "Out of This World"

(c) Episode 3 "Taking Flight"

3. Excerpt from a NOVA or NASA PROGRAM

4. Your Suggestions

2. EXPERIMENT & CHART ACTIVITY

(Refer to attached handout)

3. FOSS -MATERIALS & FLIGHT

(Refer to attached handout entitled "Foss & Flying")

4. MAKING PAPER AIRPLANES *(Refer to attached handout.)*

5. ART - "SHUTTLE LAUNCH" *(Refer to attached handouts)*

Worksheet with coloring, cutting, gluing...

EXPERIMENT & CHART ACTIVITY

1. Ask
2. Test. (Students stand and drop the papers at a time to see which falls faster. Shape test should be done with one balled up paper, and one flat. Weight test can be done with penny taped to one sheet.)
3. Record Answer

Preparation: 1. Create large charts for each class to record answers
What Affects Movement?

	YES	NO
SHAPE?		
SIZE?		
COLOR?		
WEIGHT?		

2. Distribute paper (12 sets so students work in pairs.)

(Use White construction paper so colored construction paper can be substituted in for the "color" test

FOSS & FLYING

1. Ask
2. Test (Students work in pairs and fly both types of airplanes multiple times.) (Difference = material)
3. Observe Distance Traveled
4. Close with Results of Tests

Preparation: 1. Pre make 24 airplanes. 12 of one material (paper) +
12 of a different material (ex: aluminum foil -doubled for thickness)
(Planes should be same size and shape. Only variable is type of material used.)
(Make a few extra planes in case some get destroyed.)

2. Draw numbers or lines on ground to reflect greater distance.

**If there is extra time, use overhead or Hover Cam to teach students how to fold sheet of paper into a very basic airplane.*

Windsor Hills
Aerospace Project Unit Plan



Culminating Project

Describe the culminating Aerospace Project your students will engage in. Briefly describe what students are doing.

Fly planes of different material. Discuss how 4 forces affect the flight of the planes.

What science skills and knowledge will students learn as a result of this project?

- 1. observation
- 2. measurement
- 3. prediction
- 4. Description

Unit Plan

Identify the 3 FOSS lessons that will lead up to culminating project:

standard

b) sense - material
c) Drop
e) Draw/Discuss what happened

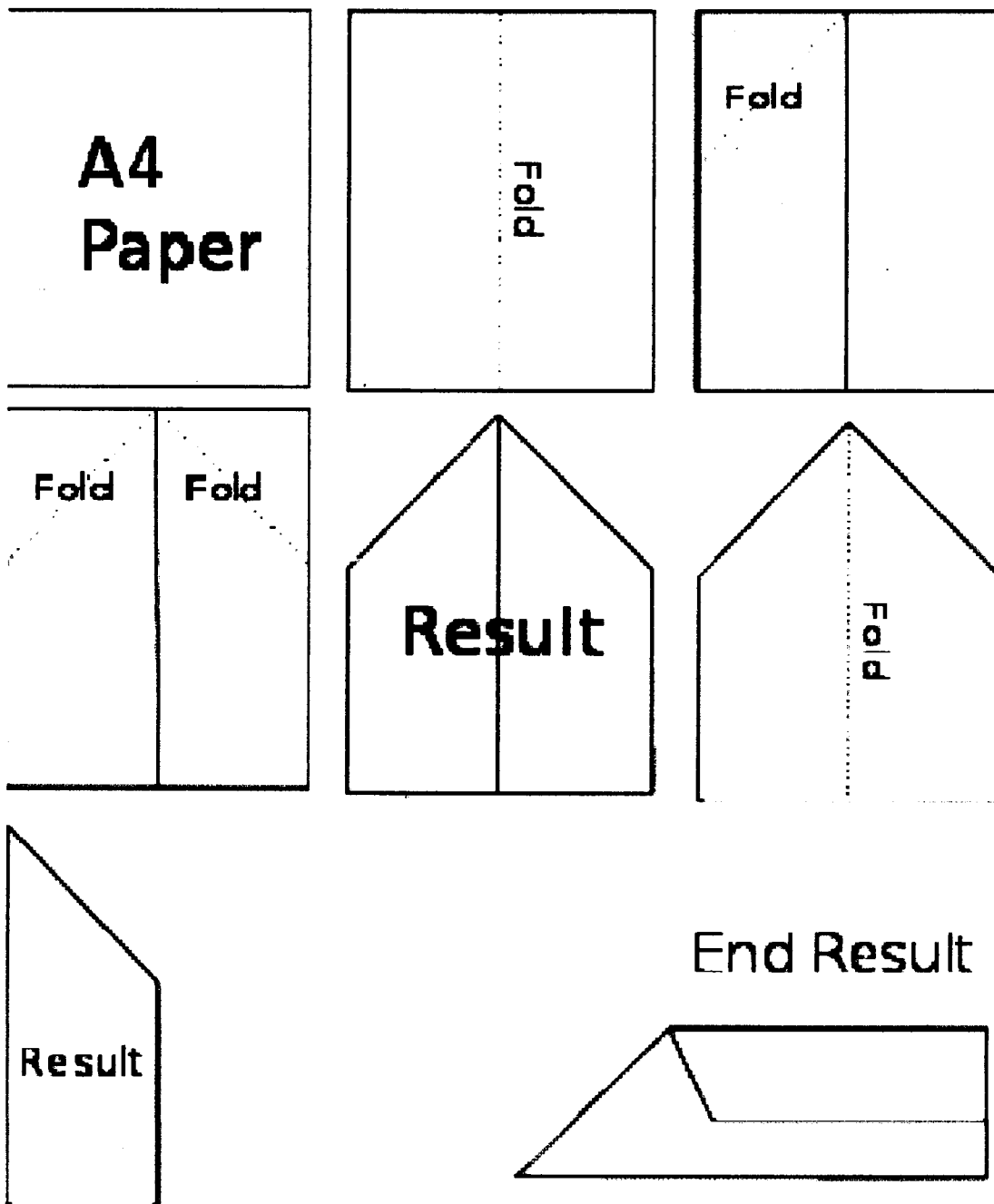
Title of FOSS Lesson	Title of FOSS Lesson	Title of FOSS Lesson
Material; Gravity (10min)	Drag (10min)	Thrust Lift (15min)
Brief Description of Lesson: <ul style="list-style-type: none"> • sense - material • Drop • why slower vs faster? • Vocab Gravity, Weight • Draw/Discuss what happened 	Brief Description of Lesson: <ul style="list-style-type: none"> • Shape ball vs flat • why do they fall at different speeds? • Vocab Drag, Air Resistance 	Brief Description of Lesson: <ul style="list-style-type: none"> • throw ball of paper = thrust • measure distance = more thrust • create something with a flap (bent vs flat) = Lift helps it stay up. • Vocab: Thrust, Lift
Key Concepts: Gravity	Key Concepts: Drag	Key Concepts: Thrust & Lift

Standards

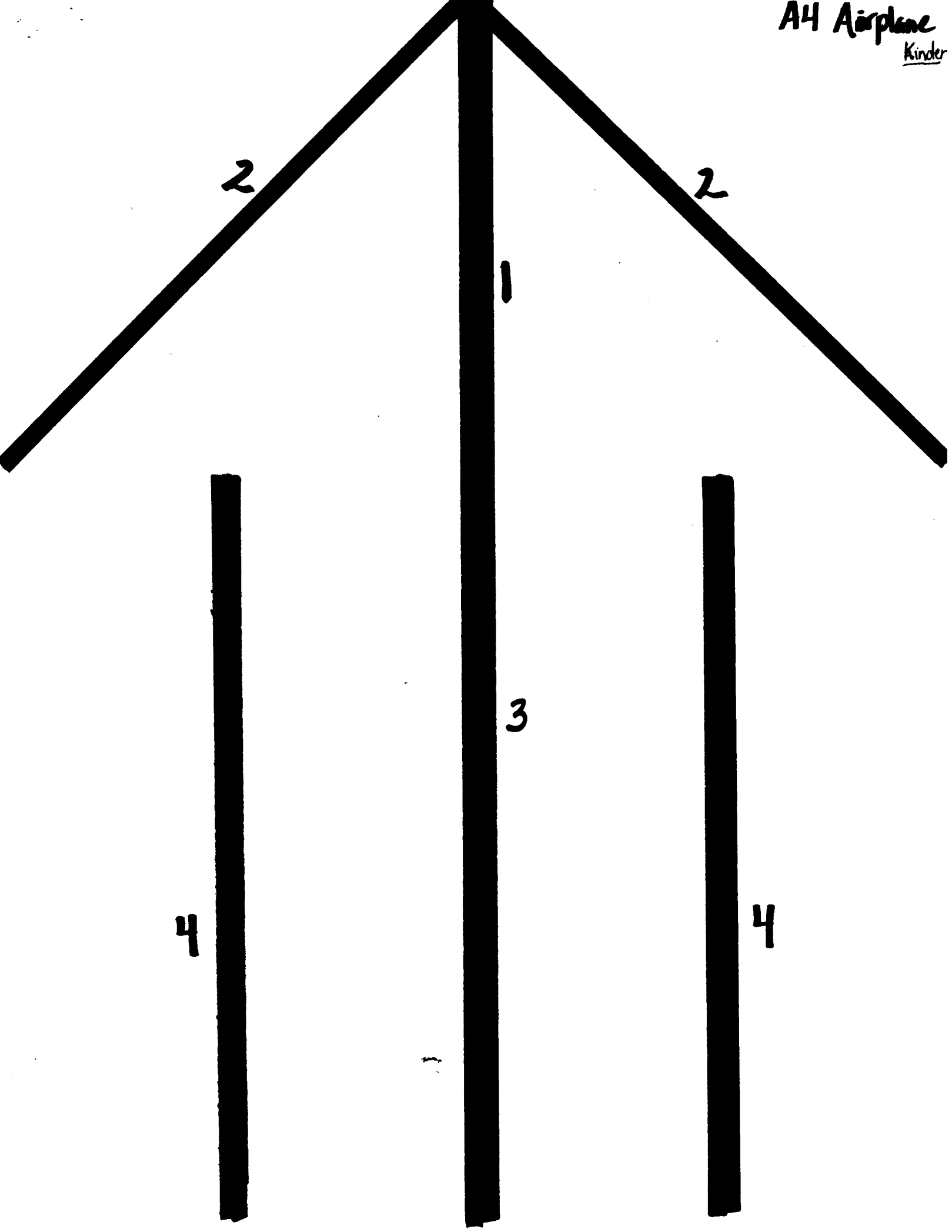
What CONTENT standards does this unit cover? Materials	What Investigation & Experimentation standards does this unit cover? a, b, c, d, e
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MAKING PAPER AIRPLANES

How to Make a A4 Airplane



Write NAME on airplane. FLY it. DECORATE it with markers, crayons, stickers, or paint.



2

2

1

3

4

4

TITLE: **SHUTTLE LAUNCH**

ART LESSON: **TEXTURE**

Space Week

STUDENT: _____

