Name: _____

# S.D-T.A.R.P

# Science, Design, Tech, and Research Project!

The project we are about to begin is going to be an adventure. There is not a specific task or set of worksheets you need to complete in order to be finished.

Some groups will work quicker than others in different parts of the project and as a result will be able to move onto the next phases.

As we progress through we will be learning from each other both from our failures and successes.

I am relying on each of you to be as creative and hard working as you can be. You will be able to use your creativity and individual interests to fuel your passion and motivation.

**The main goals of this project are to:**
- Learn and teach others as much as possible about the ideas written on the ideas page.
- Learn as much as possible about film making including both the planning and shooting stages.
- Do quality research using reliable sources and proper citation (bibliography).
- Learn about teamwork and how to work well in groups.
- Have fun!

These are the big ideas I want you to teach/show/explain using your video project.

**Big Idea**
Evolution by natural selection provides an explanation for the diversity and survival of living things.

**Answer these big questions:**

Why do living things change over time?

How do these changes affect biodiversity?

**Important concepts to explain**

- organisms have evolved over time
- change in traits of populations over time
- survival needs (all organisms need space, food, water, and access to resources in order to survive)

**Natural selection**
- The natural process by which certain traits that have a greater fitness for their environment lead to a reproductive advantage. (Those who can survive are able to do this because of genes in their DNA and how they affect their phenotype. These genes when passed on allow future generations to survive also.)
- This process happens within a population over time because of genetic variation. (Just like with our bugs lab, there was always variation in the population and this allowed the bugs to adapt as a population to whatever the background changed to).
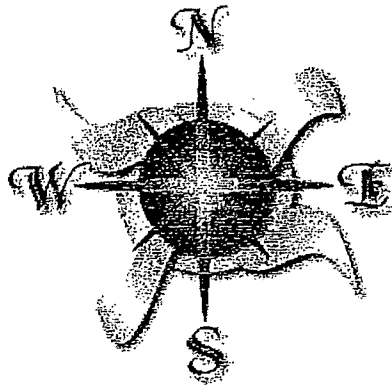
## Compass Activity: What Collaborative Style Are You?

**1. North: (Doing) "Let's get going"**
> ➤Likes to see things get done.
> ➤Plunge in and figure it out as you go.

**2. South: (Caring) "Let's get everyone involved"**
> ➤Likes to know that everyone's ideas have been taken into account and that all opinions are heard before acting.
> ➤Cares about the feelings / collaboration of the group.

**3. East: (Speculating) "I want to see the whole picture"**
> ➤Likes to look at the big picture and all the possibilities before taking action.
> ➤Takes time to process before speaking

**4. West: (Details) "I need to know the details"**
> ➤Likes to know the who, what, when, where, and why before acting
> ➤Details are very important

**Directions:**
a) You are invited to go to the "direction" that best describes you. NO ONE fits only 1 direction, but everyone must choose one predominant style.
b) 1 person from each team is to come get paper and 1 marker.
c) Designate a recorder.
d) In 7 minutes, you will report out as a group.

**Please answer the following while in your group.**
a) What are 4 adjectives that describe the strengths of your group?
b) What are 4 adjectives that describe the limitations of your group?
c) What style do you find most difficult to work with? Explain?
d) What do other groups need to know about you, so you can work more effectively together?
e) Any other commonalities?

# COMMON TEAM ROLES

Below are some common team roles used in projects from grades 4-12. They can be written and treated like job descriptions.

## Team Leader

- Establishes and runs team meetings
- Sets and monitors goals & agreements and redirects team, as needed
- Delegates tasks and divides work, as needed
- Mediates conflict between team members
- Encourager

*Key Trait:*
*Relationship-oriented*

## Research Lead

- Goes outside of provided materials to gather and share useful information.
- Focuses on "supporting on the sidelines"
- Helps team overcome obstacles and roadblocks.
- Collects, maintains and uses the Team Need to Know List to drive work

*Key Trait:*
*Resourceful*

## Organizational Lead

- Keeps time during activities and phases of design
- Maintains a schedules and tracks progress toward goals and milestones
- Keeps track of materials
- Organizes and maintains team documents

*Key Trait:*
*Detail-oriented*

## Design Lead

- Directs team to use the design process.
- Tracks team's use of each phase of design
- Gathers team perspectives, makes key design decisions

*Key Trait:*
*Process-oriented*

## Archivist

- Archives team's work in progress, drafts and prototypes
- Takes photos and videos of work in progress
- Captures quotes, moments & process

*Key Trait:*
*Reflective*

## Curator

- Focuses on how work will be displayed at the end
- Pays attention to detail without losing sight of the big picture
- Collaborates with other curators to ensure continuity of work curating at the end
- Consults with team on during project

*Key Trait:*
*Visionary*

In addition to these "generic" roles, ask yourself: "If I was a professional in industry creating a comparable tangible outcome to the students in this project, what would my job be? What would my title be? What would some of the key elements of my job description be?" Could the answers to those questions help you frame a role for your specific project?

**Professional Title:**
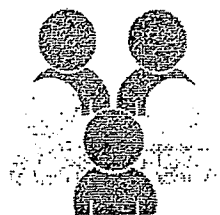
**Job Description:**          **Key Duties:**

# UPPER ELEMENTARY TEAM CONTRACT

## TEAM AGREEMENT

Team Name: _____          Project: _____

**BEING A TEAM MEMBER**

| My name is _____ and I will help with the project by... | My name is _____ and I will help with the project by... | My name is _____ and I will help with the project by... |
|---|---|---|

**TALKING AS A TEAM**

| When we speak to each other, we... | When we make decisions, we... | Also, we... |
|---|---|---|

**WORKING AS A TEAM**

| When we don't agree, we... | If someone misses something, we will... | We will meet on... |
|---|---|---|

# Project Team Work Plan

Project Name:

Team Members:

Product:                                                          Due:

| What needs to be done? | Who will do this part? | By when? | ✓ Done |
|---|---|---|---|
|  |  |  | ☐ |
|  |  |  | ☐ |
|  |  |  | ☐ |
|  |  |  | ☐ |
|  |  |  | ☐ |
|  |  |  | ☐ |
|  |  |  | ☐ |

# Storyline

On the back of the page, describe:
 location
• characters

Climax
(outcome)

Falling Action

Rising Action Event

Rising Action Event

Rising Action Event

Set up: initiating event

Setting the Scene
(opening scene, establishing the shot,
  introduction of characters)

Team Member Names: _____

# FRAMING THE SHOT 6-7

SHOT STYLE

- **ES**: Establishing shot - wide angle of scene to get everyone or everything in shot.

- **LS:** Long shot - to get the person(s) or object(s) entire body, head to toe.

- **¾:** ¾ shot – a person's head to knees

- **MS:** Medium shot. A person's head to waist

- **CU:** Close up is a certain feature, such as someone's head to chest, takes up the whole frame.

- **MCU:** Medium close up – person's top of head to chin

- **ECU:** Extreme close up - frames in face and cuts off forehead.

ANGLES

- **High Angle-** Camera is placed above subjects

- **Low Angle-** Camera is placed below subjects angled to look up at subject

- **Eye Level-** Camera is at eye level

- **Oblique Angle (**Canted Shot)-a close ranged, angled bird's eye view for establishing the shot

CAMERA MOTION

- **Tilt:** Tip or lean camcorder up or down using tripod or holding camcorder.

- **Pan:** Move camcorder from side to side.

- **WAP:** Wide Angle Pan. Pan from one end of scene slowly to other end which takes in all of scene

- **Zoom:** Move closer into the scene from long shot to close up or vice versa.

- No camera motion

# General Storyboard, grade 6-7
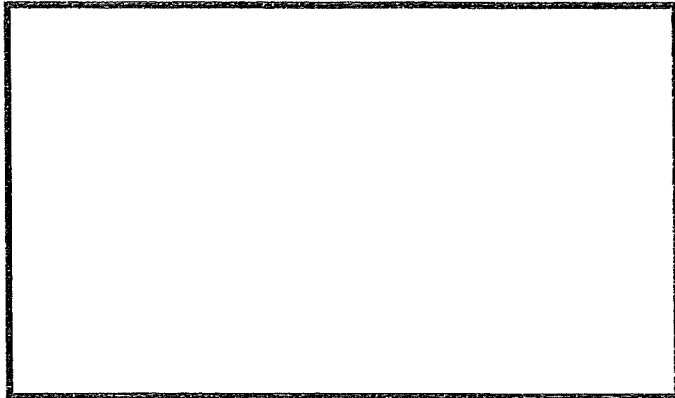
Names: _____

Date: _____

Shot Style: _____

Angle: _____
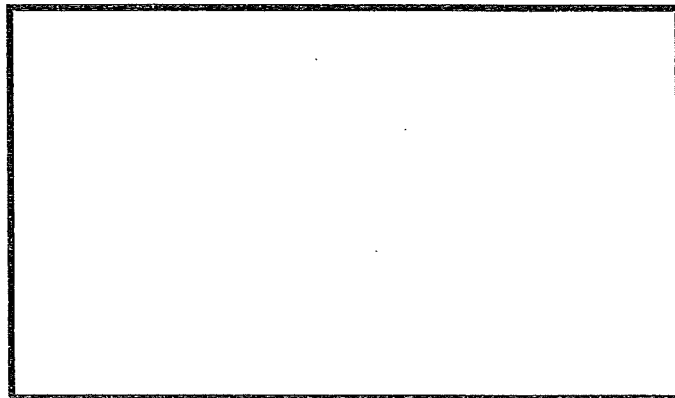
Camera Motion: _____

People in the shot: _____

_____

Camera person: _____

Shot Style: _____
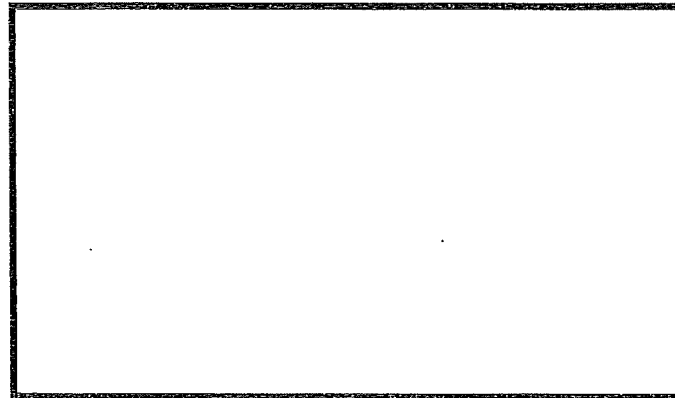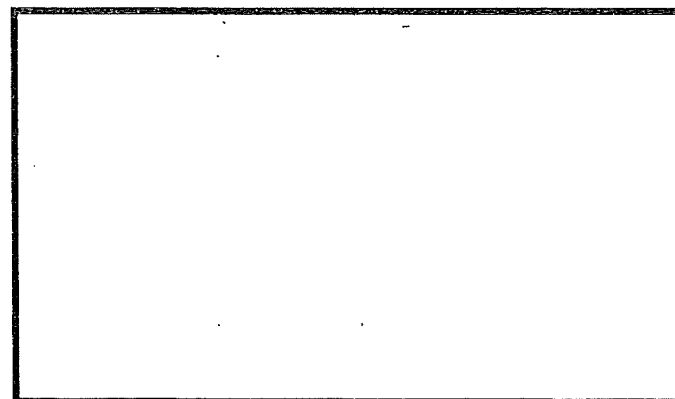
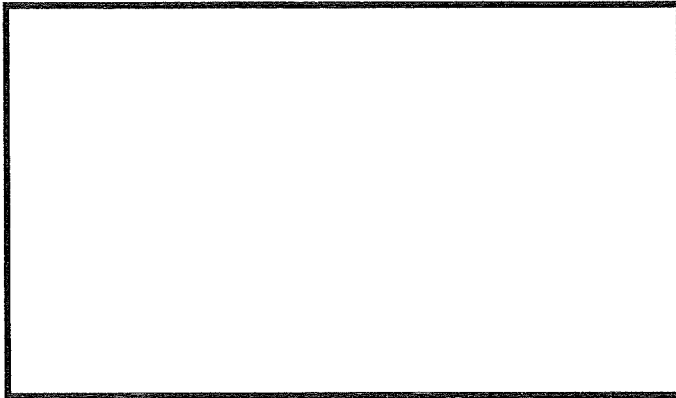Angle: _____

Camera Motion: _____

People in the shot: _____

_____

Camera person: _____

Shot Style: _____
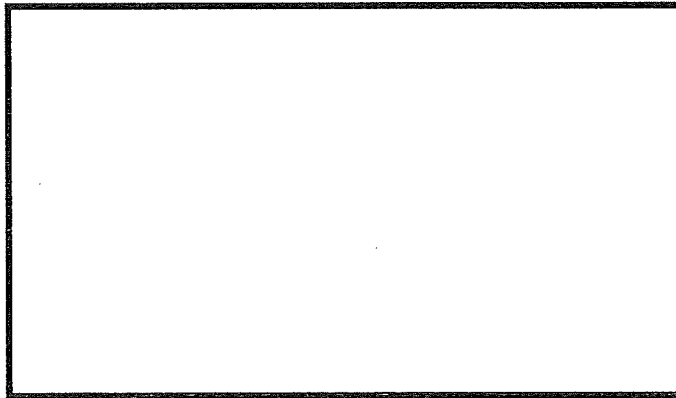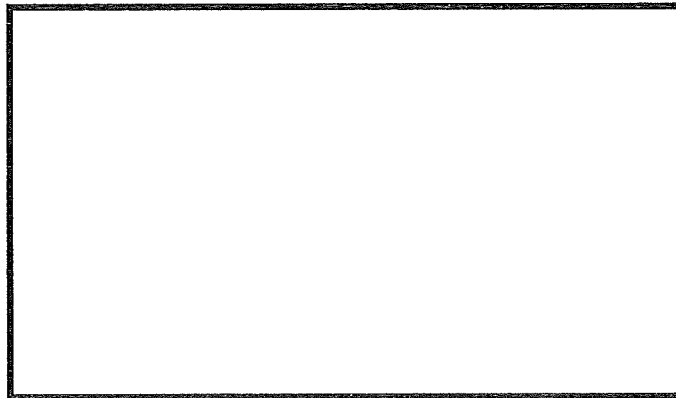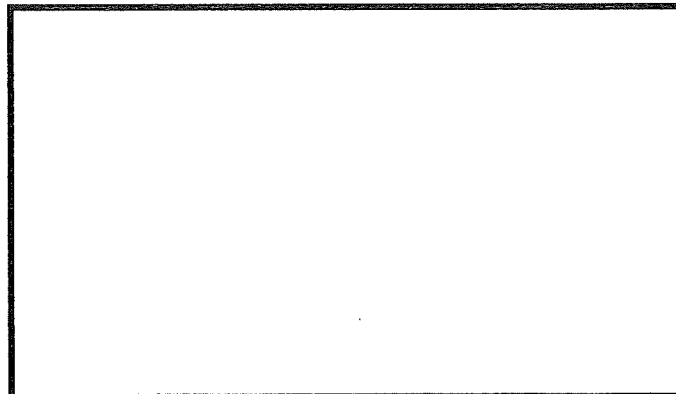
Angle: _____

Camera Motion: _____

People in the shot: _____

_____

Camera person: _____

Shot Style: _____

Angle: _____

Camera Motion: _____

People in the shot: _____

_____

Camera person: _____

# General Storyboard, grade 6-7

Names: _____

Date: _____

| | |
|---|---|
| | Shot Style: _____<br><br>Angle: _____<br><br>Camera Motion: _____<br><br>People in the shot: _____<br><br>_____<br><br>Camera person: _____ |

| | |
|---|---|
| | Shot Style: _____<br><br>Angle: _____<br><br>Camera Motion: _____<br><br>People in the shot: _____<br><br>_____<br><br>Camera person: _____ |

| | |
|---|---|
| | Shot Style: _____<br><br>Angle: _____<br><br>Camera Motion: _____<br><br>People in the shot: _____<br><br>_____<br><br>Camera person: _____ |

| | |
|---|---|
| | Shot Style: _____<br><br>Angle: _____<br><br>Camera Motion: _____<br><br>People in the shot: _____<br><br>_____<br><br>Camera person: _____ |