

## STEAM : Creating an Information Video

Team Members: \_\_\_\_\_

Your Team Role: \_\_\_\_\_

### YOUR TASK:

- Choose a Science experiment, Math problem, Technology explanation, or Arts how-to to teach/describe for an audience of grade 2 students.
- Create an iMovie which will effectively in communicate your “lesson/demonstration” for your intended audience. You will first create a storyboard planning all the details followed by filming, editing and refining to reach the final product of an iMovie video, with a total length of no longer than 3 ½ minutes.
- Your grade 2 audience will watch this iMovie and share with you their learning.

### Goals for Learning:

- Effectively portray a lesson or demonstration of a STEAM activity.
- Use the design thinking process to reach a final product.
- Listen actively, contribute ideas, build on ideas and problem-solve in respectful ways.

### Our Focus Core Competencies:

- I can listen actively (turn body toward person speaking, look at person speaking, ask questions, agree/disagree respectfully).
- I can reflect and make responsible choices (appropriate use of materials, using respectful volume inside the school, etc.).
- I can offer ideas and build on those of others respectfully.

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## STEPS 1-4

### STEP 1:

Choose an area of interest to you and your team: Science, Technology, Engineering, Art and Math.

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### STEP 2:

- Brainstorm and explore online various topics within your chosen area (STEAM).
- Choose 2 possible topics that you would like to focus on for your iMovie.

Possibility #1:

Title: \_\_\_\_\_

Brief description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Possibility #2:

Title: \_\_\_\_\_

Brief description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## STEAM : Creating an Information Video

### STEP 3:

- Develop 3 questions which will help you to know the understandings your grade 2 students may or may not already have about your topic, so that you can make informed decisions about your iMovie.
- Your last question should be asking your class to vote on their preference between your 2 chosen topics. If time allows, find out what they already know and wonder about the topic.

Question 1:

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Question 2:

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Question 3: Would you prefer to learn about:

Possibility #1 Title: \_\_\_\_\_ or

Possibility #2 Title: \_\_\_\_\_

Based on their choice, determine what they already know, and what they wonder about this topic using the following KNOW-WONDER-LEARNED chart.

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TOPIC TITLE: \_\_\_\_\_

KNOW	WONDER	LEARNED (to be filled in after the final viewing)

## STEP 4:

Driving Statement.

Based on the information gained through your interaction with the grade 2's, complete this driving statement:

The grade 2's  
name and description

Need a way to \_\_\_\_\_

user's needs

Because

\_\_\_\_\_

\_\_\_\_\_

insight



# STEAM : Creating an Information Video

## Peer Evaluation Form

Date: \_\_\_\_\_ Name \_\_\_\_\_

Write the names of your group members in the numbered boxes. Then, assign yourself a value for all the criteria listed. Finally, do the same for each of your group members. Add the total of all the values.

**Values: 1 = Not Yet Meeting Expectations    2 = Approaching Expectations**  
**3 = Fully Meeting Expectations        4 = Exceeding Expectations**

Criteria	Myself	1.	2.
Participated in group planning and discussions.			
Helped keep the group going and on task.			
Contributed useful ideas.			
Amount of work contributed.			
Quality of work contributed.			
Totals:			

### Group Self Evaluation Checklist

As a team, decide which answer best suits the way your team worked together. Then, complete the remaining sentences.

We finished our task on time and we did a good job!    \_\_\_ Yes        \_\_\_ No

We used quiet voices in our communications.        \_\_\_ Yes        \_\_\_ No

We listened actively and respectfully to each other.    \_\_\_ Yes        \_\_\_ No

Example: \_\_\_\_\_

We contributed ideas and built on each other's ideas.    \_\_\_ Yes        \_\_\_ No

Example: \_\_\_\_\_




We did best at \_\_\_\_\_

Next time, we could improve at \_\_\_\_\_

# INDIVIDUAL SELF REFLECTION: HUMAN CENTRED DESIGN THINKING PROCESS

Your Name: \_\_\_\_\_ Team Role: \_\_\_\_\_

Team Members: \_\_\_\_\_ Date: \_\_\_\_\_

Design Stage				Student	Teacher
EMPATHY	Describes user emotion, physical needs, surprising insights	Limited description of user empathy with few insights or needs	Little or no description of user empathy		
DEFINE	Point of View (POV) is clearly reframed around a user in the driving statement. Needs are stated as verbs to describe an area where the user needs help	Driving statements in not clearly reframed. Needs for the user are stated as nouns.	Driving statement does not reframe the challenge to describe the user and needs.		
IDEATE	Divergent thinking results in a large variety of ideas and concepts. Selects ideas and concepts to move forward with.	Use of convergent thinking only, resulting in a limited range of ideas and concepts	Little or no ideas generated		
PROTOTYPE	Solution created. Record of feedback and iterations describing what was learned from each user test.	Partial solution created. Little or no iteration.	Little or no solution accomplished.		
TEAM ROLE	Consistently fulfilled the Team role as outlined in the Team Role descriptor.	Needed reminding in fulfilling the Team role.	Little or no participation in the Team role.		
DESIGN THINKING REFLECTIONS	Consistently explains how the solution meets the user needs, including feedback data or peer review	Reflections do not consistently include the user needs, feedback data or peer review.	Little or no evidence of user needs, feedback data or peer review.		

Based on Stanford University's IDEO Design Thinking Rubric

## INDIVIDUAL CORE COMPETENCIES: HUMAN CENTRED DESIGN THINKING PROCESS

Your Name: \_\_\_\_\_

For the following statements, you are to choose as many as apply to you such that you can provide an example from this group project.

*Example: I can work with others to achieve a common goal; I do my share. I believe I do my share because I completed all the tasks that were assigned to me by my team leader on time so that others could do their part. A specific example of this is: I was in charge of learning the green screen app and testing green backgrounds before we started filming and I was able to test more than one green background and found that it had to be solid paper rather than construction paper.*

A) I can work with others to achieve a common goal; I do my share

B) I can take on roles and responsibilities in a group

C) I give, receive and act on feedback

D) I can represent my learning, and tell how it connects to my experiences and efforts




E) I am an active listener; I support and encourage the person speaking



# TEAM REFLECTION: HUMAN CENTRED DESIGN THINKING PROCESS

Team Members: \_\_\_\_\_

Date: \_\_\_\_\_

Design Stage				Team	Teacher
EMPATHY	Describes user emotion, physical needs, surprising insights	Limited description of user empathy with few insights or needs	Little or no description of user empathy		
DEFINE	Point of View (POV) is clearly reframed around a user in the driving statement. Needs are stated as verbs to describe an area where the user needs help	Driving statement was not clearly reframed. Needs for the user are stated as nouns.	Driving statement does not reframe the challenge to describe the user and needs.		
IDEATE	Divergent thinking results in a large variety of ideas and concepts. Team was able to work together to select ideas and concepts to move forward with.	Use of convergent thinking only, resulting in a limited range of ideas and concepts	Little or no ideas generated.		
PROTOTYPE	Solution created. Record of feedback and iterations describing what was learned from each user test.	Partial solution created. Little or no iteration.	Little or no solution accomplished.		
TEAM	Team functions as a whole with all members contributing.	Team functions as a whole most of the time. Some members are more engaged than others.	Teamwork is non-existent.		
STORY-TELLING	Team described their solution, linking prototype, POV and empathy for a user.	Team can describe their solution with some connection to POV and/or empathy.	Team is unable to tell a story about their solution.		

Based on Stanford University's IDEO Design Thinking Rubric

# TEAM REFLECTION: HUMAN CENTRED DESIGN THINKING PROCESS

Please provide two stars and two wishes for this project. It could be related to your work as a team, the software you used, how you completed the project, how you organized team roles. Stars are areas your group did well, and wishes are what you might do differently next time. Answer the wishes honestly, if there is something you wish could be different, I will use your reflection as an indication that you are aware it is not as good as it could be and then it will not affect your mark as much.

Your wish cannot be "We wish \_\_\_\_\_ did their work." The wishes should be about the whole group working on the project.



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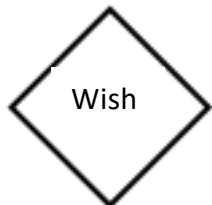


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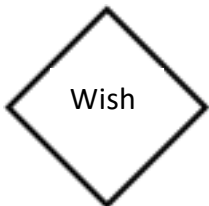


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## DESIGN THINKING RUBRIC DEFINITIONS



- **empathy:** the feeling that you understand another person's, (or group of people), experiences and emotions as a means to create a solution (versus sympathy: the feeling that you care about and are sorry about someone else's trouble)



- **point of view (POV):** a way of looking at or thinking about something (student's POV, teacher's POV, financial POV, etc)



- **divergent thinking:** a strategy of solving problems by creating as many ideas as possible, no matter how crazy or far fetch those ideas seem. When developing a solution, divergent thinking leads to convergent thinking.



- **convergent thinking:** is a problem-solving technique involving the bringing together different ideas to determine a single best solution. This kind of thinking concentrates on finding the single best or frequently, correct solution to a problem or answer.



- **Solution:** A product or idea that will end a problem



- **Feedback:** helpful information or criticism that is given for a solution to say what can be done to improve the product or idea



- **Iterations:** based on feedback, creating a different or improved version of a solution.



- **user:** the target person, or group of people, who are the focus of the solution



- **peer review:** a process by which a prototype goes through feedback



- **prototype:** an original or first model of a solution that is improved upon based on peer review feedback.



- **driving statements:** focussing on the user's point of view, an action statement is created that is human-centred, broad enough for creative freedom but narrow enough to make it manageable.