raft
RESOURCE AREA FOR TEACHING

MAKER JOURNAL

Name:_____   Date:_____

_____

_____

What objects send messages by light or sound?

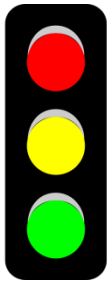| Use the space below to draw a picture of everyday objects that send messages by light and by sound→ |
|---|

Examples:

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Use the space below to draw a picture of a way to use light to send messages→

Example:

Pg: _____

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Use the space below to draw a picture of a way to use sound to send messages→

<u>Example</u>:

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Look at the 20 Morse Codes below. Make up a simple word with the code to send to another team. →

MORSE CODE ALPHABET	
A: • —	N: — •
B: — • • •	O: — — —
C: — • — •	P: • — — •
CH: — — — —	Q: — — • —
D: — • •	R: • — •
E: •	S: • • •
F: • • — •	T: —
G: — — •	U: • • —
H: • • • •	V: • • • —
I: • •	W: • — —

Example: <u>My word is</u>   had

• • • •   • —   — • •

<u>**Make your own words below**</u>:

👉 **Send your code to another team to see if they can figure it out**

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Criteria & Constraints

Circle below the Option your team choose for the Design Challenge:

Option 1: Create a percussion instrument model to send messages to your school

Example:

Option 2: Create a model to shine light on letters or symbols to send a message to your school.

Example:

With your team, remember all criteria and constraints for your design:

CRITERIA	CONSTRAINTS
Your model must be able to send/receive a message at least as far as across the playground	Must use materials provided
Your model must be easy to put together and to take apart	You must finish making your model in the time allowed
You must be able to carry your model around	You must follow the option requirements
	Your model must not be attached to the ground at any time

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_____

Ideate

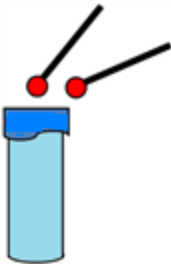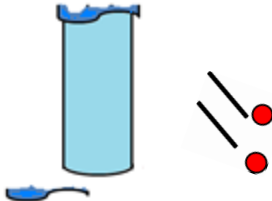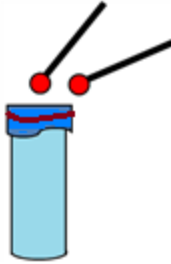| Draw below all your favorite ideas that your team thought about : |
|---|

Example:

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Prototype, Test, Iterate

Draw below your team prototype, how it held up to tests, and what you did to improve it:

Prototype	Test	Iterate
Example:	but it broke when we beat it →	We glued the red balls on the sticks and put top on tube with a rubber band and it worked!

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Our Final Design

Draw your final design below and describe why you chose it as your final design: