REMOTE DISTANCE LEARNING

A CLASSROOM TEACHER'S VIEW

PART 2

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Leading Education in 2020– Session 2 for K-12 Teachers

Teachers are on the front lines of Education, and have become guiding lights for our youth during these strange times. In part one of a two-part series, we'll provide Kindergarten through Grade 12 teachers with the basics of Distance Education pedagogy. Teachers will finish the series with specific education tools and a firm grasp on how to approach an unstable school year.

OVERVIEW OF THIS SESSION

Maintaining Relationships

The Importance of Patterns

Experiential Teaching & Learning

ABOUT OUR PRESENTER, JACQUELINE MONTEITH:

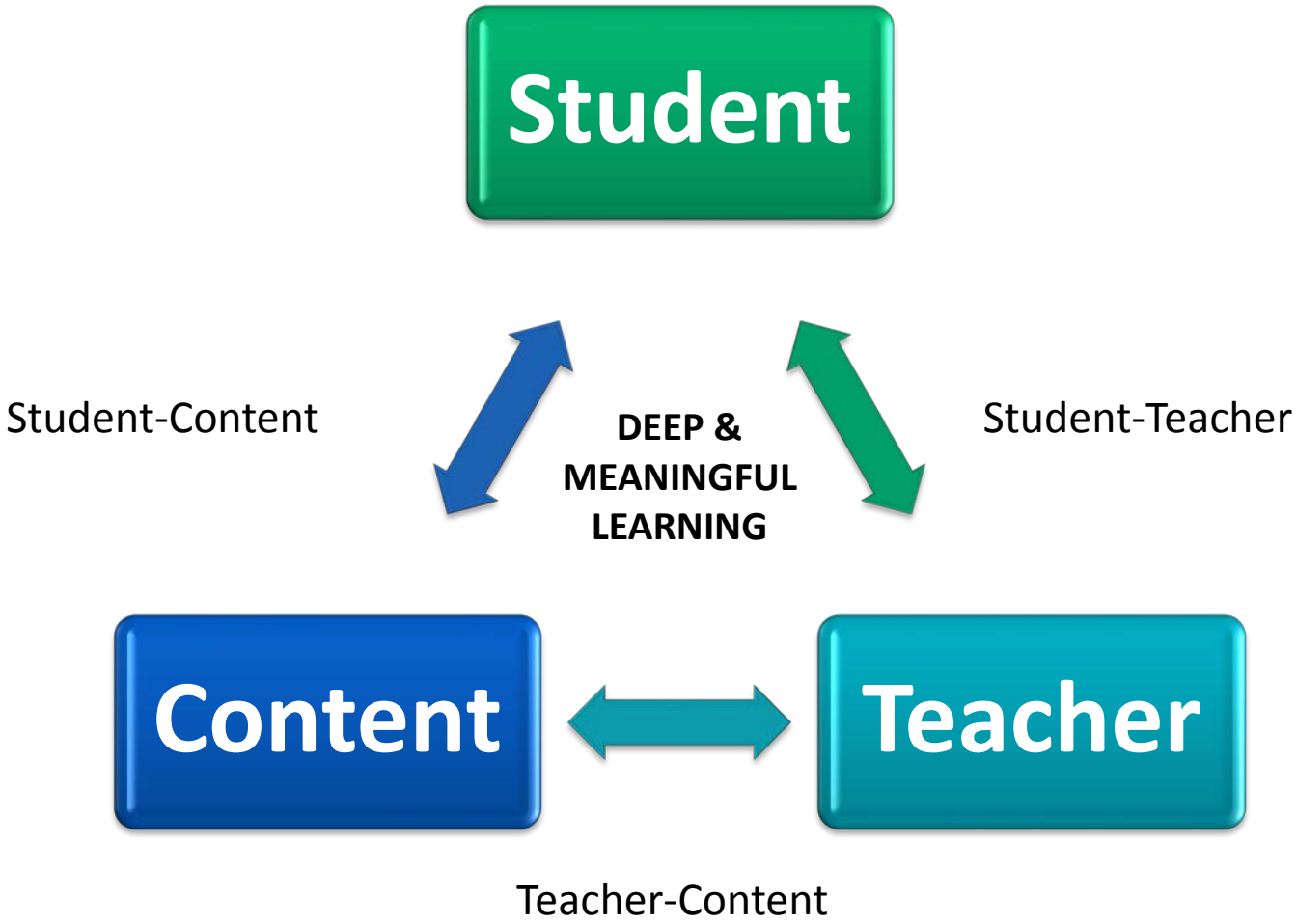
Jacqueline began teaching high school in Northern Manitoba after graduating from the University of Winnipeg. In 2012, she received her Master's Degree in Distance Education. In 2013, Jacqueline began her current position as a Science Instructional Coach with Frontier School Division. Her role is to teach and support teachers, and thus our youth, using a variety of methods across a massive geographical area. Jacqueline's 18 years of experience throughout the province, her degree in Distance Education, and her zest for thinking differently has created an ideal leader for 2020.

Jacqueline can also help support your organization, your school and your Division in both Science and Distance Education pedagogy. Please contact her directly to discuss your specific professional development needs at truenorthedmb@gmail.com.

Session 1

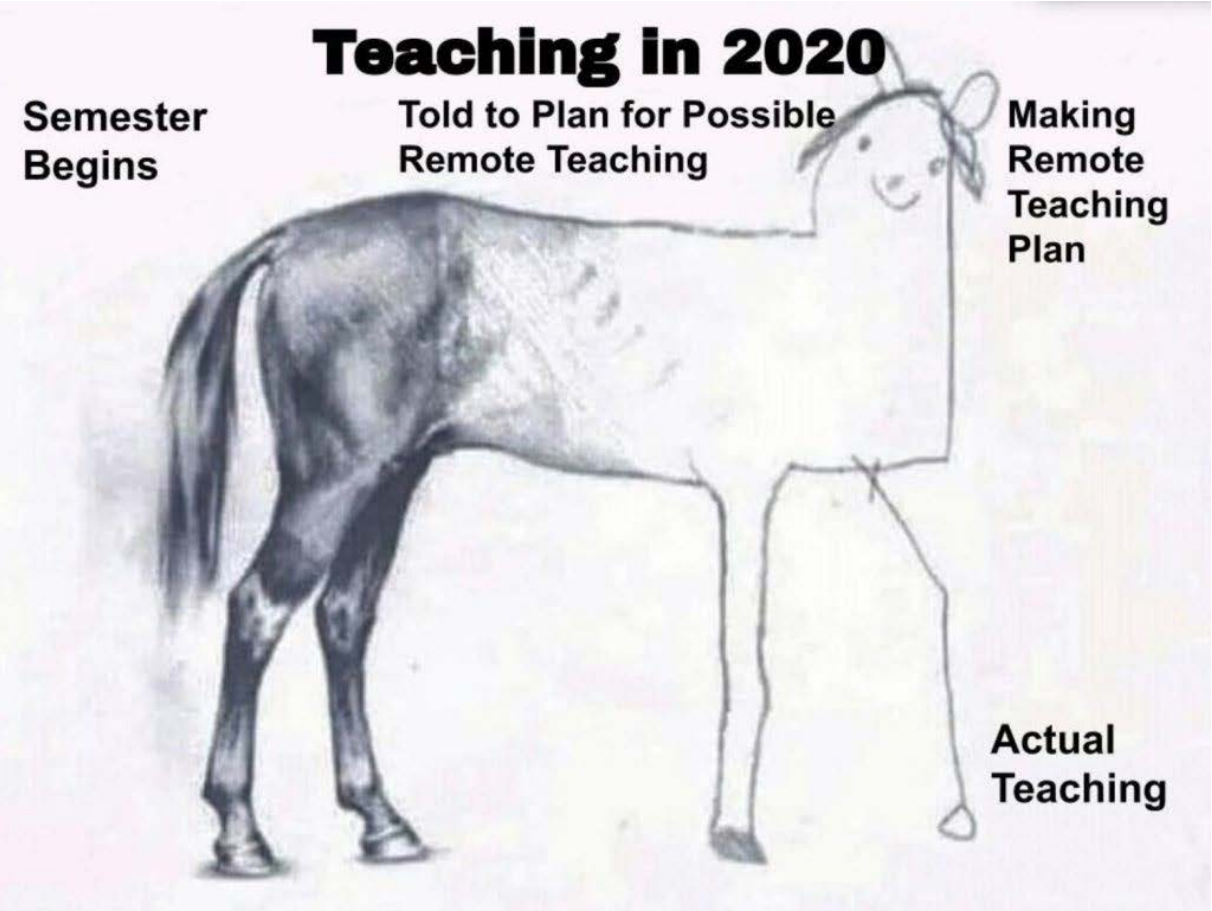
- ✓ Importance of Relationship & Celebration
- ✓ Experiential Teaching & Learning
- ✓ Calming the Chaos with Patterns

Modes of Interaction

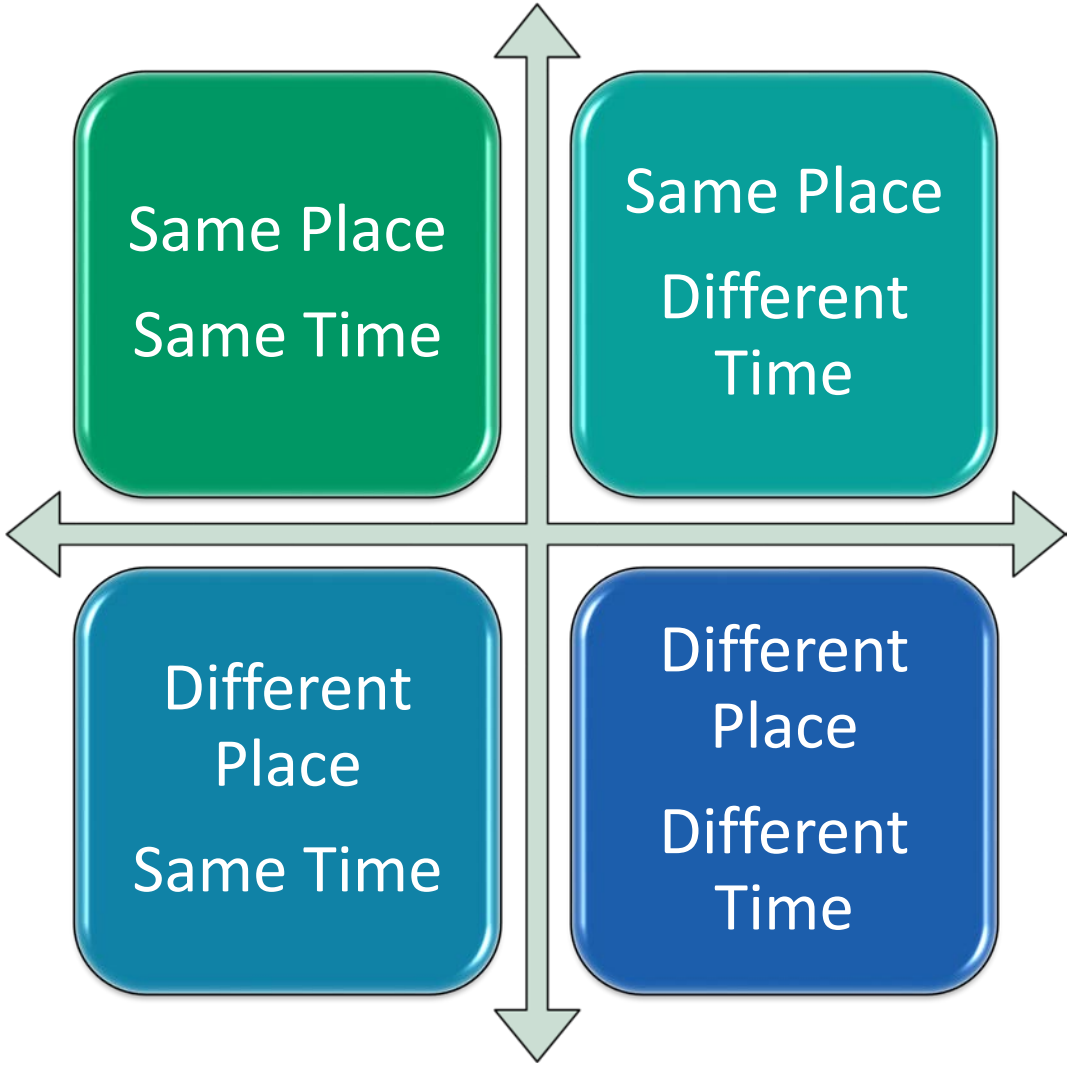


Anderson & Garrison, 1998

Approaches to Technology



Time & Place Shifting



Caution!

Extreme Views on Technology

Print

Pros	Cons
Flexible Robust Portable Stability Convenience Cost Use of simple visuals that emphasize critical details	Static Non-Interactive Passive learning Requires literacy

1.

Print Packages??

Let’s change our language to Activity Packages.

Send ONE week at a time- do not overwhelm!

Include:

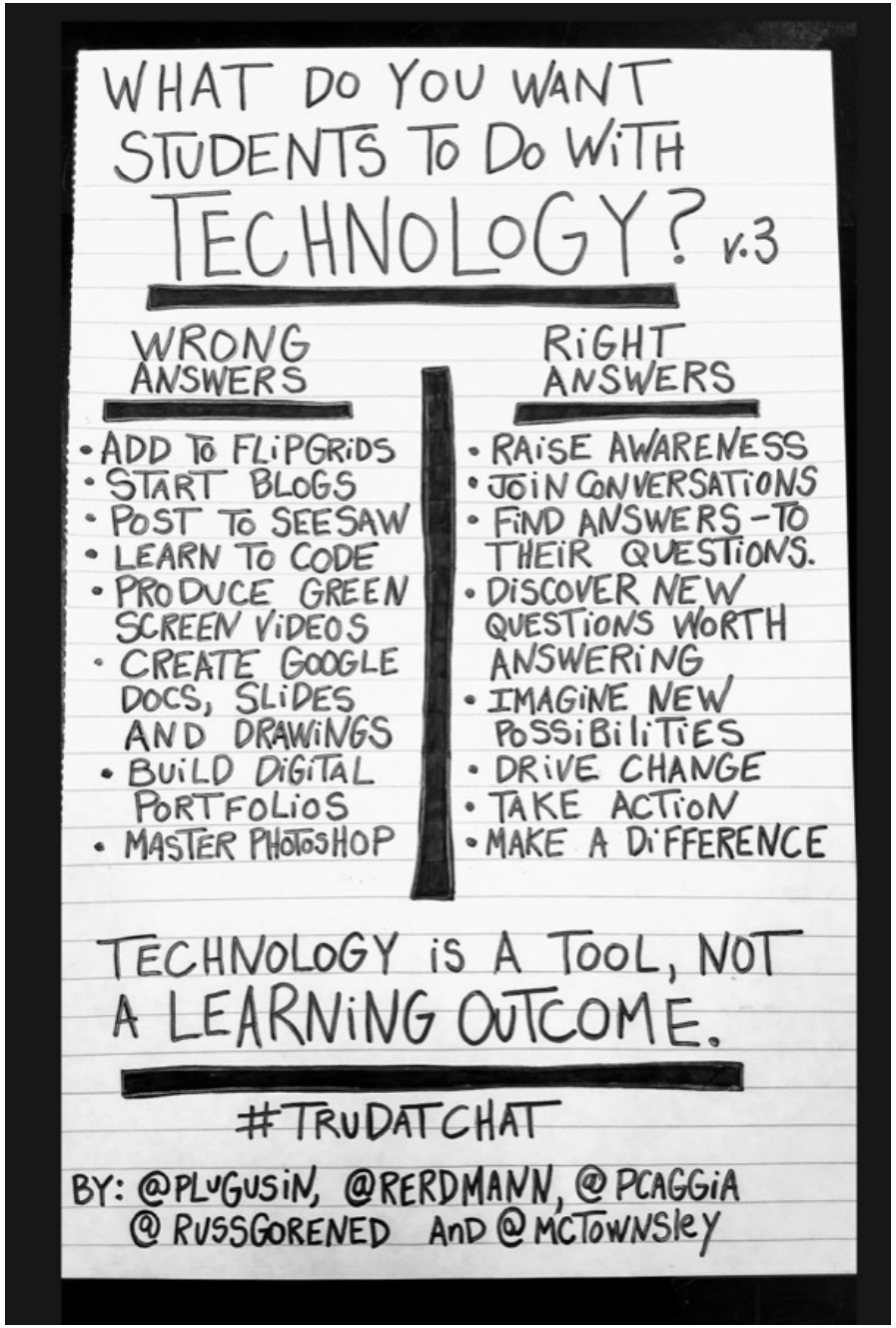
One set of supplies that will be reused week-to-week

Materials to support experiential learning, revolving journal, supporting print materials, hands-on activities, celebration items

Package and label materials so that students open them with your guidance

Technology

One Way	Two Way
TV Radio Youtube Videos Pre-recorded lessons	Videoconferencing Interactive LMS (SeeSaw) Email Facebook Livestream events


WHAT DO YOU WANT STUDENTS TO DO WITH TECHNOLOGY? v.3
WRONG ANSWERS
• ADD TO FLIPGRIDS
• START BLOGS
• POST TO SEESAW
• LEARN TO CODE
• PRODUCE GREEN SCREEN VIDEOS
• CREATE GOOGLE DOCS, SLIDES AND DRAWINGS
• BUILD DIGITAL PORTFOLIOS
• MASTER PHOTOSHOP
RIGHT ANSWERS
• RAISE AWARENESS
• JOIN CONVERSATIONS
• FIND ANSWERS - TO THEIR QUESTIONS.
• DISCOVER NEW QUESTIONS WORTH ANSWERING
• IMAGINE NEW POSSIBILITIES
• DRIVE CHANGE
• TAKE ACTION
• MAKE A DIFFERENCE
TECHNOLOGY IS A TOOL, NOT A LEARNING OUTCOME.
#TRUDATCHAT
BY: @PLUGUSIN, @RERDMANN, @PCAGGIA @RUSSGORENED AND @MCTOWNSLEY

Categories in Distance Ed Tech

Parent & Family Messaging	Remind Teachers text reminders for students and parents	Talking Points Tool for supporting communication and engagement with families
Student Portfolios	Seesaw: The Learning Journal Versatile digital portfolio which using multimedia learning and communication.	Bulb Portfolio tool that has interesting features for teacher content creation.
Learning & Classroom Management	Edmodo Manage classes, content, and communication with social LMS platform.	Schoology LMS for digital classrooms.

Lesson Delivery	Nearpod Interactive slideshow tool engages students and promotes collaborations.	Pear Deck Interactive slideshows offer a variety of engagement and assessment methods
Lesson Planning	Common Curriculum Lesson planner allows collaborative planning and calendars.	Planboard One-stop digital lesson planner.
Communication & Discussion	Flipgrid Pose questions, spark thoughtful video responses to foster online discussions.	Parlay Comprehensive discussion platform to develop critical thinking skills.
Assessment & Feedback	Spiral Instant feedback with collaborative, multimedia assessment tools.	Kaizena Audio and text feedback in Google Docs.

Caution!

Limited options are best. DO NOT give more than 3 options at any one time. It is our job to advise on our top choices.

Too many choices and tech platforms overwhelm

teachers, students and families.

Tech: Most Common Denominators

Phone?

Radio?

Internet?

Facebook?

Youtube?

Two-way LMS?

Teacher Support

Introduce a new tech option once every 2-3 months

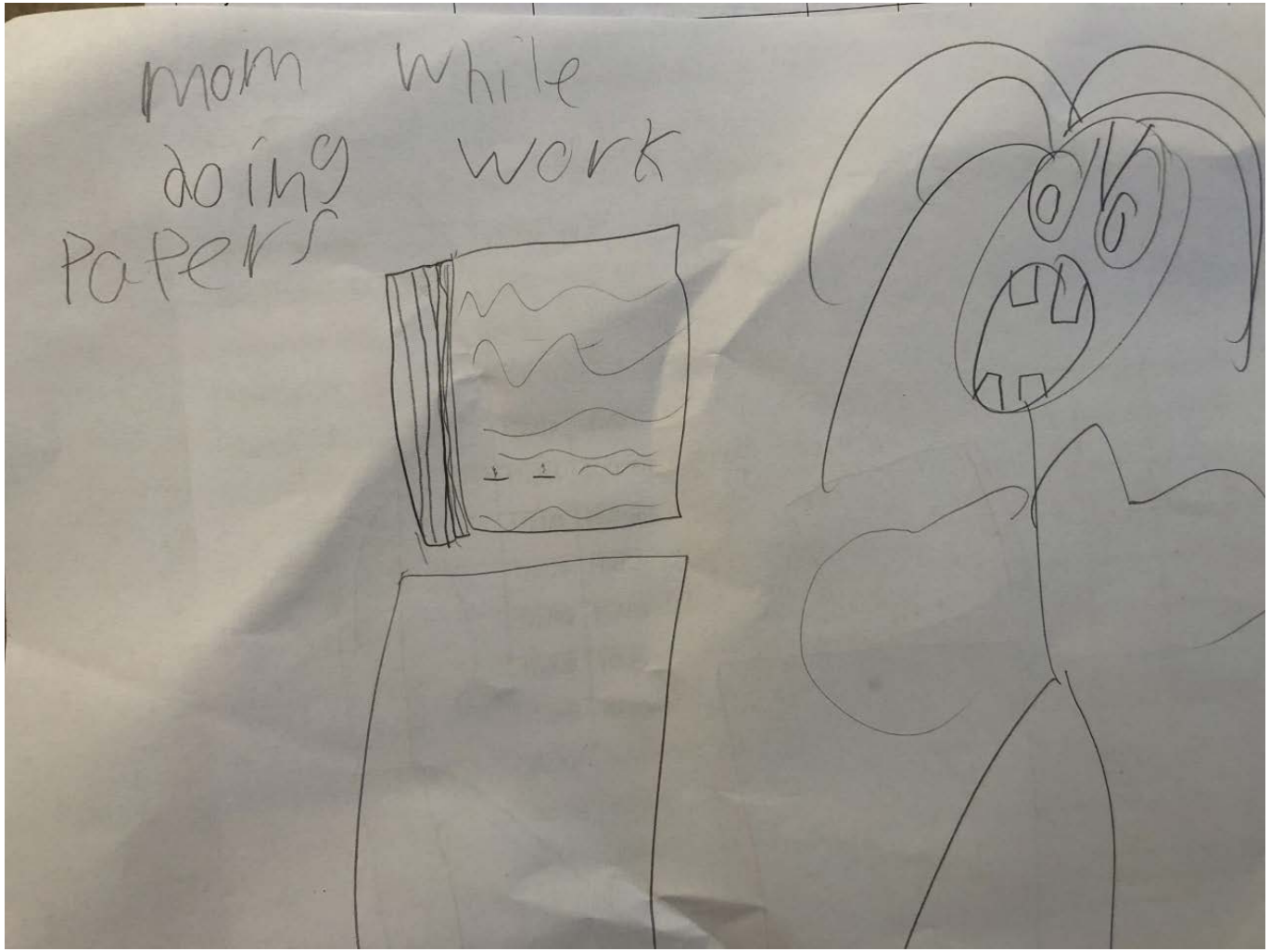
Allot a minimum of two days of training for each technology.

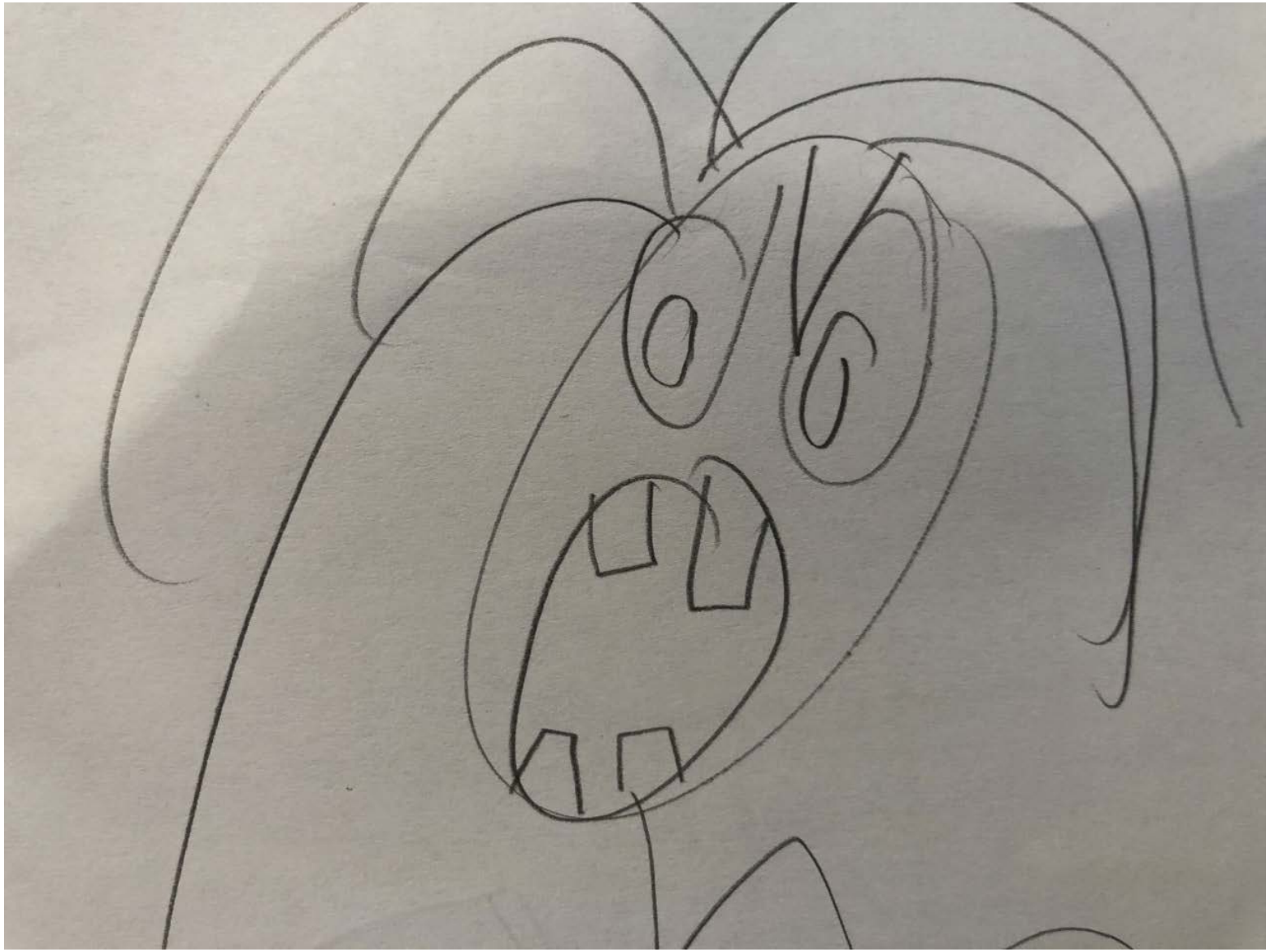
YES! Two days!!

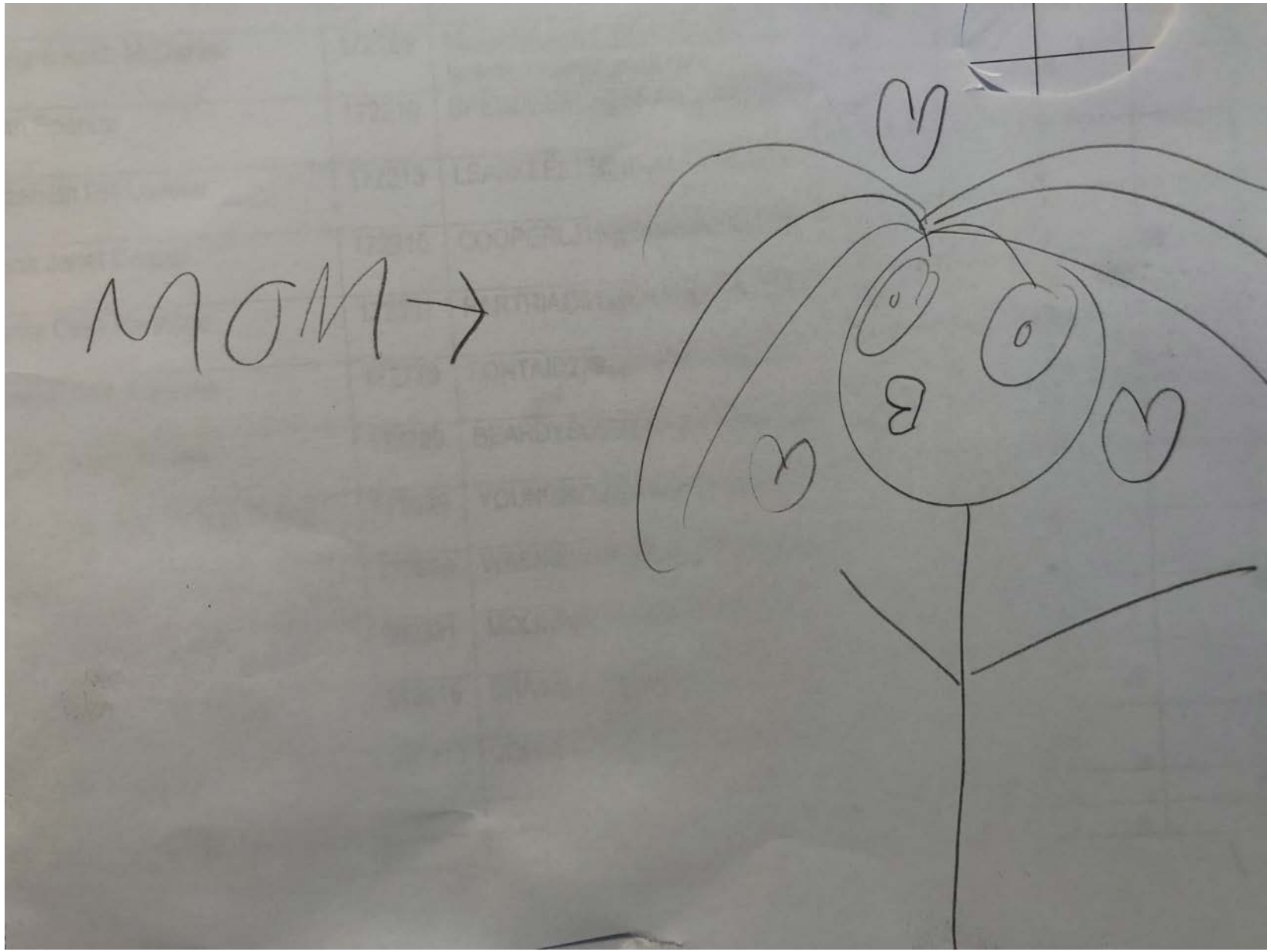
Two days will allow teachers to learn the tech AND how it can be useful in personal teaching practices.

Consider back-tracking to provide new training on existing platforms

Effective Distance Education Methods






MOM→

Got the HOTS?!?

- Debates
- Panels
- Role Play
- Brain Storming
- Purposeful Reflection
- Cooperative Learning
- Discussion Groups
- Team Presentations
- Learning Tournaments

Debate

Choose high-interest topics

Choose an issue related to course content with polarized views

Content on the topic and the related issues should be presented to the learners

Set time limit to work and opportunity for each team member to present a message or alternate ways of expression

Point is to help learners to construct situations that result in contradictions that challenge the learner

1. Kanuka & Anderson (1999)

Early Years	Discuss contrasting opinions on a science scenario or story. Example: Read a story about recycling. Give the scenario that the school is no longer allowed to use any paper, ever. Discuss the pros and cons of this.
Middle Years	Read an article and present a question related to that article. Create an opinion and fact list that considers both sides of the question or argument. Example: Provide an article about space exploration. Give the statement: Space travel is too expensive to continue. Students discuss and summarize both facts and opinions for both the pros and cons of this statement.
Senior Years	Conduct a formal debate. Assign debate roles in a small group. Provide research materials for the group to use. Give a set amount of time to prepare for the debate (a few days is ideal). Example: Provide short biographies of prominent scientists throughout history. Assign debate teams and roles. Give the statement: Hawking was the most important scientist of all time. Host a formal debate based on researching prominent scientists.

Brainstorming

Limit group sizes- keep them small

Limit time before expression of ideas to keep ideas fresh

Equal amounts time for discussion and evaluation or summary of ideas

Outcomes: new solutions to existing problems, inspire collective creativity, effect group synergy

Asynchronous: use of small group audio conversations. Encourage families to participate off-line and off-phone.

Early Years	Discuss the possible ways to solve a problem. Example: Present a scenario: A community member is trying to grow a plant indoors, but it is not growing. We need to come up with a plan to help solve this problem. What should we include in the plan?
Middle Years	Discuss a design project in partners or in a small group. Agree upon the design requirements. Each partner then draws or creates a prototype of the design. Example: Your community is purchasing a drone to help the community. What will the drone be used for? Design the ultimate attachments that the drone will need to complete the needed tasks.
Senior Years	Provide group members with a series of high interest articles on one concept. The group will design a project to express facts and opinions on various articles, assign project roles, and what the end product will be. Example: Begin the process by providing a series of articles on dark matter, black holes, and expanding galaxies. Students will discuss content to ensure understanding, and then begin the collaborative process of designing an end product.

Concept Mapping & Brain Patterns

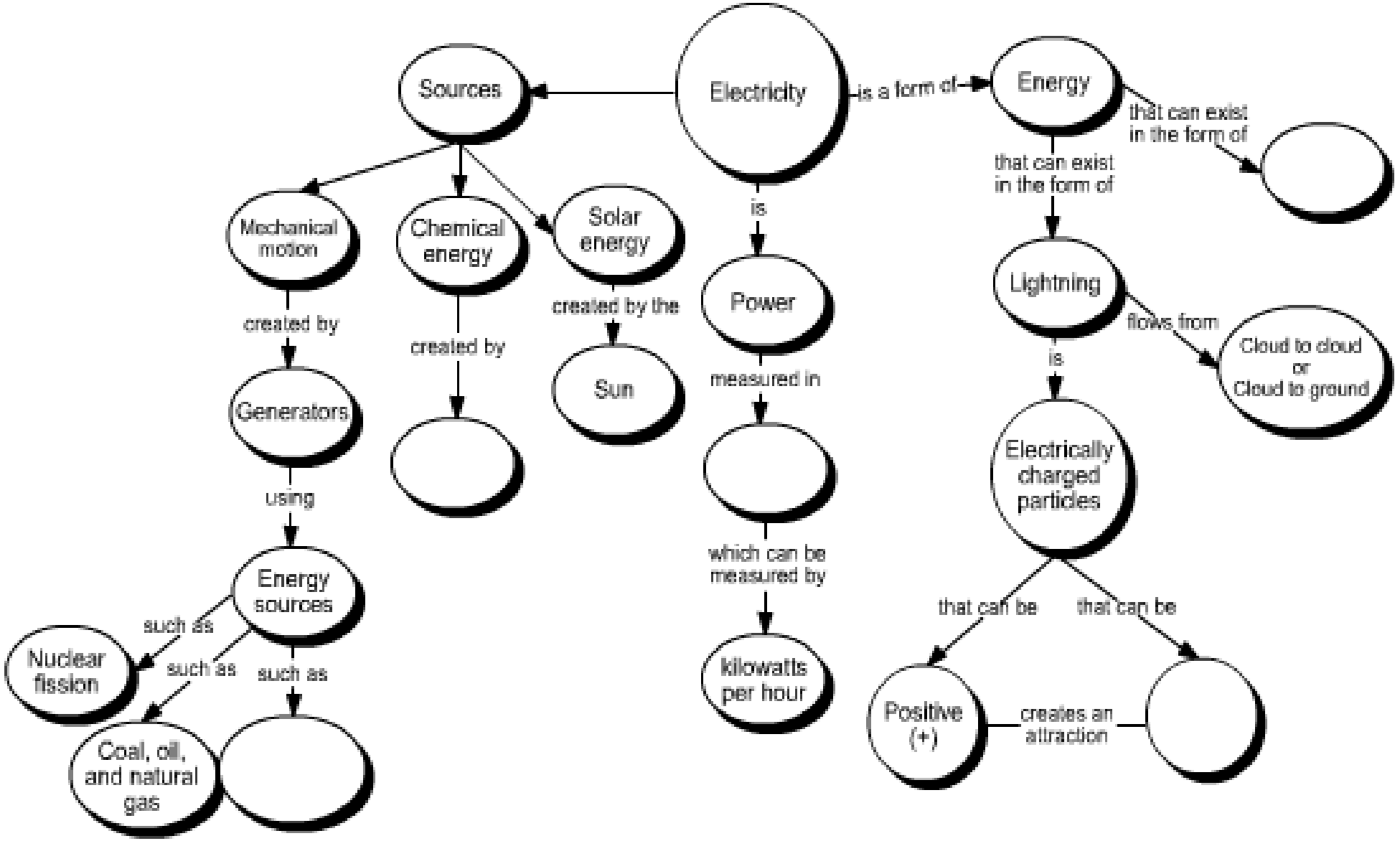
Presenting meaningful relationships between concepts – two or more concepts linked to indicate a relationship

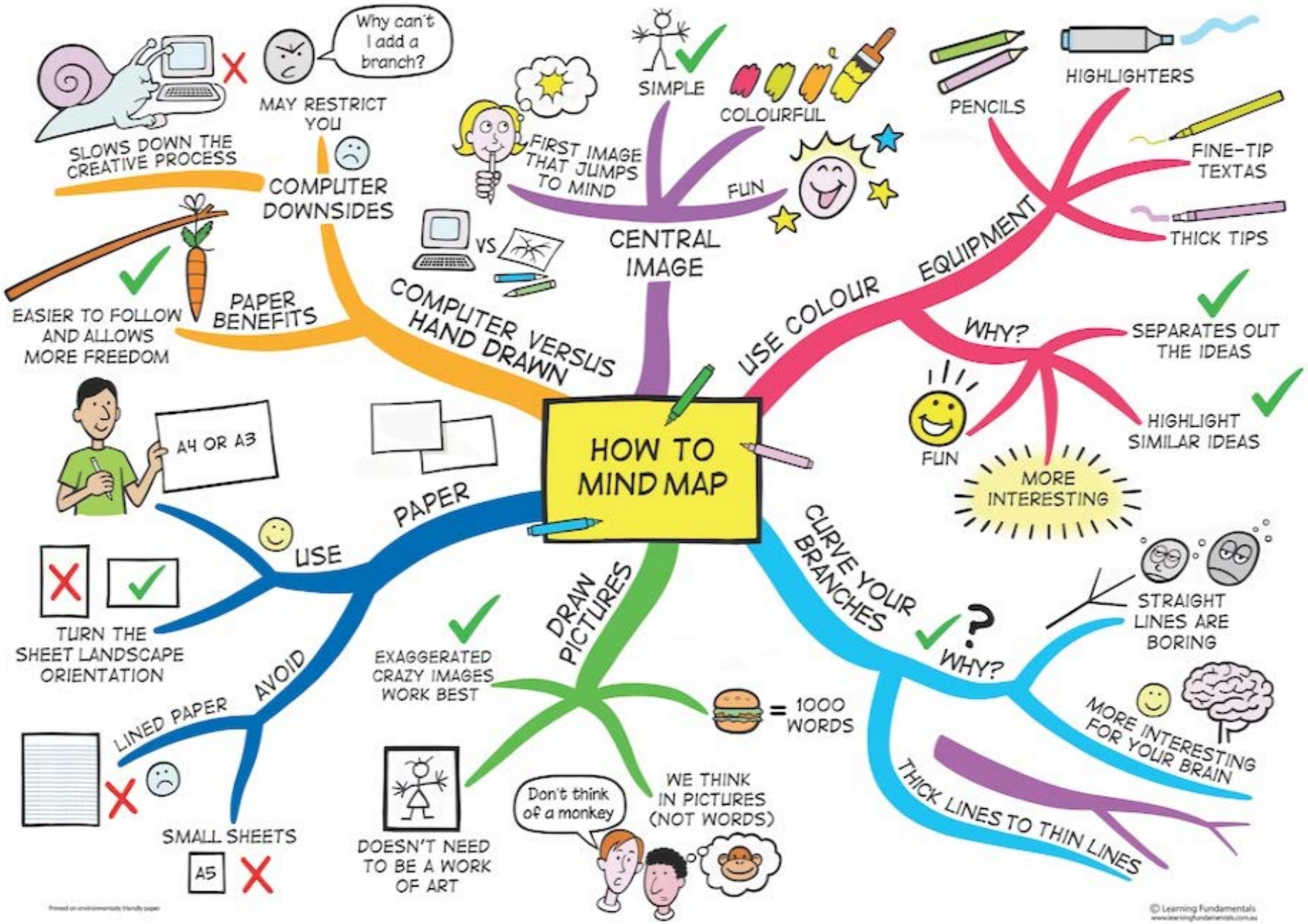
Select 6-8 key concepts that are central to the topic, connect in a way that makes sense, look for cross-linkages

Can use as assessment tool but not as an examination tool: shows degrees of concept understanding

Can ask students to construct a map and relationships with or without providing the concepts

1. Kenny, 1993


Electricity
is a form of
Energy
that can exist in the form of
Sources
Mechanical motion
Chemical energy
Solar energy
created by
created by
created by the
Generators
Sun
using
Energy sources
such as
such as
such as
Nuclear fission
Coal, oil, and natural gas
is
Power
measured in
which can be measured by
kilowatts per hour
that can exist in the form of
Lightning
flows from
Cloud to cloud or Cloud to ground
is
Electrically charged particles
that can be
that can be
Positive (+)
creates an attraction


HOW TO MIND MAP
CENTRAL IMAGE
SIMPLE
COLOURFUL
FUN
FIRST IMAGE THAT JUMPS TO MIND
COMPUTER VERSUS HAND DRAWN
VS
COMPUTER DOWNSIDES
SLOWS DOWN THE CREATIVE PROCESS
MAY RESTRICT YOU
Why can't I add a branch?
PAPER BENEFITS
EASIER TO FOLLOW AND ALLOWS MORE FREEDOM
USE COLOUR
EQUIPMENT
PENCILS
HIGHLIGHTERS
FINE-TIP TEXTAS
THICK TIPS
WHY?
SEPARATES OUT THE IDEAS
HIGHLIGHT SIMILAR IDEAS
FUN
MORE INTERESTING
PAPER
USE
A4 OR A3
TURN THE SHEET LANDSCAPE ORIENTATION
AVOID
LINED PAPER
SMALL SHEETS
A5
DRAW PICTURES
EXAGGERATED CRAZY IMAGES WORK BEST
= 1000 WORDS
DOESN'T NEED TO BE A WORK OF ART
Don't think of a monkey
WE THINK IN PICTURES (NOT WORDS)
CURVE YOUR BRANCHES
WHY?
STRAIGHT LINES ARE BORING
MORE INTERESTING FOR YOUR BRAIN
THICK LINES TO THIN LINES
Printed on environmentally friendly paper
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Early Years	Provide concept key words and a blank concept map outline. Students will arrange in a way that makes sense. Example: Provide key words for characteristics of living things. The blank concept map will have two main hierarchies for plants and animals.
Middle Years	Students will choose from a short list of concepts to explore. They will be given some key words but will also be responsible for determining additional key words. Students will choose to create either a concept map or a brain pattern. Example: A student has chosen the concept of Water Systems. The given words include: ocean, ground water, lake, salt water, pond. This will help prompt the student in creating his or her final product.
Senior Years	Students will choose from a short list of concepts to explore. Students will create both a concept map/dichotomous key and a brain pattern for the same concept. This will help students to showcase their complete understanding of the concept with two different products. Example: Concepts to choose from might include: natural community features, local vegetation, beyond our solar system, waves.

Fast Fail Approach

Assessment & Evaluation Principles

Use variety of meaningful tasks for assessment

Use timely, unmarked testing to provide feedback and confirmation of learning

Use open book, collaborative, and un-timed assessment

Allow students to re-rest if they wish

Provide prompt and clear feedback for any assessment or test

Poll!

Plan Of Action & Next Steps

Teacher Support

Time to transfer from emergency teaching to Distance Ed!

✓One week Distance Ed training and planning

✓One week student and parent training and planning

One Week Distance Ed Training & Support

Whole-school educator conversations

Determining most common denominator with technology

What can and cannot be done over a distance

One Week Distance Ed Training & Support

- 2-day tech training
- Creation of specific logistics plan
- Creation of activity packages
- Effective use of school supports:

Educational assistants, bus drivers, and more

Teacher Support

Introduce a new tech option once every 2-3 months

Allot a minimum of two days of training for each technology.

YES! Two days!!

Two days will allow teachers to learn the tech AND how it can be useful in personal teaching practices.

Teachers need 2-3 times more planning time than synchronous teaching time

WHY??

Purposeful planning which focuses on learning relationships

Using Maslow’s to get to Bloom’s

Preparing all pre-delivered activity packages

Preparing for whole-class teaching time

Preparing for small-group & individual teaching time

WHY??

Assessment and evaluation from a distance

Learning new technology features to enhance their practice

Outreach to families

Open office hours

One Week Student & Family Support

- Whole-community conversations
- Presenting detailed school logistics plan
- Setting up at-home learning stations
- Training students on technology
- Training families on technology
- Helping families to support their learners

School Plan

Take time to plan and train properly- this will help our teachers, students, and communities immensely!!

No more emergency teaching.

Monday	Tuesday	Wednesday	Thursday	Friday
Whole Class: 1 hour direct teaching Small Groups & Individuals: 1 hour direct teaching	Whole Class: 1 hour direct teaching Small Groups & Individuals: 1 hour direct teaching	Whole Class: 1 hour direct teaching Small Groups & Individuals: 1 hour direct teaching	Whole Class: 1 hour direct teaching Small Groups & Individuals: 1 hour direct teaching	Student Catch Up Materials Exchange Office Hours
Students: I hour asynchronous work 1 hour experiential family activities	Students: I hour asynchronous work 1 hour experiential family activities	Students: I hour asynchronous work 1 hour experiential family activities	Students: I hour asynchronous work 1 hour experiential family activities	Students: I hour asynchronous work 1 hour experiential family activities

Daily Teacher Schedule

One hour whole-class

One hour small groups

One hour individual help

2-3 hours prep & additional needs

Student Daily Schedule

One hour whole-class

Up to one hour small groups

One hour independent work time

One hour family-based experiential activities

Secondary Scheduling Options

Option 1: 1-2 subject blocks of time

Option 2: One subject per day

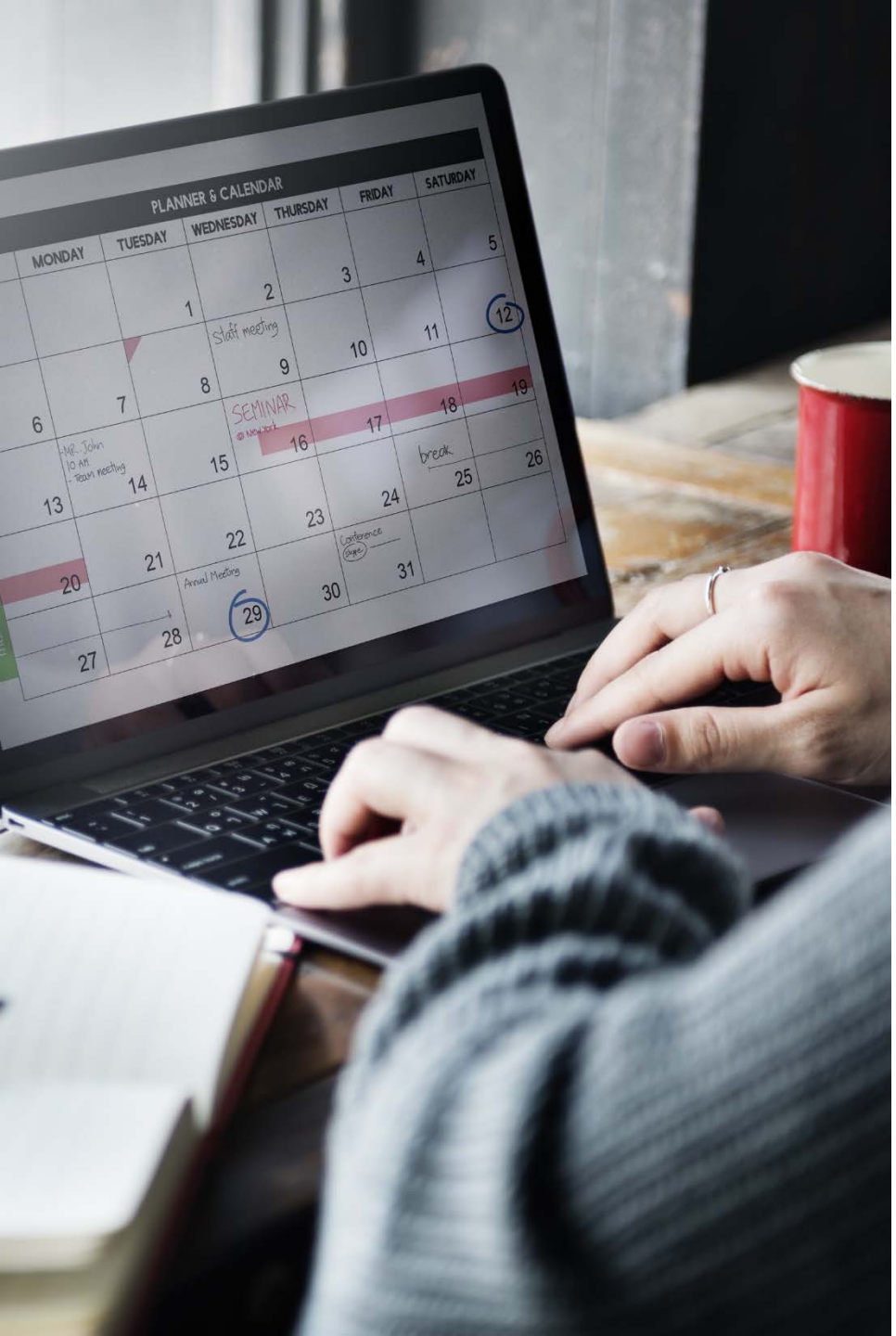
(all work can be completed that day)

Maximum 1 hour whole-class teaching

Maximum 1 hour small group/individuals

Approximately 1-2 hours independent work time

1 hour family-based experiential activities



Mystery Schedule Considerations

Consider planning from a Distance Ed standpoint for the remainder of this school year

(can transfer to face-to-face much easier)

Consider longer Distance Ed periods of time

For example:

Monthly re-entry points after school shut-downs

Hybrid Teaching

Teaching face to face and virtually at the same time

Options:

- F2F/Virtual every second day (school-wide)
- Re-organize teachers for one-focus classes
- Create focus time and independent work times within your own class

Summary: Relationship

Maslow Before Bloom

Student-Teacher

Student-Content

Student-Student

Student-Self

Direct Connection to Intrinsic Motivation

Summary: Experiential Teaching

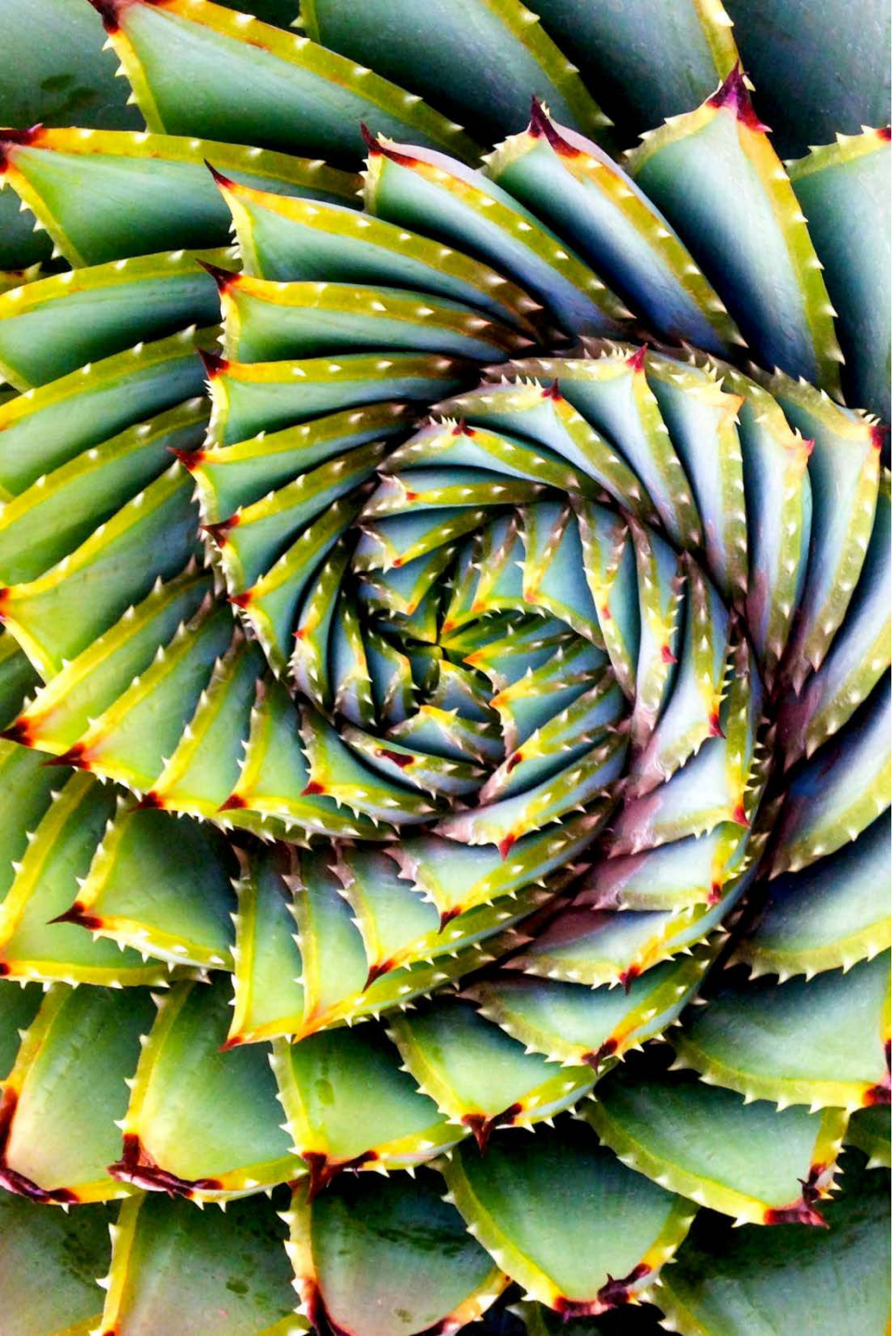
Identify what can and cannot be done through a distance

Create a common core experience (Science!)

Build learning objectives onto the common core

Repeat this pattern

EXAMPLES
Simon the Scientist 5-Min Field Trips STEM Cards Perimeter Institute for Theoretical Physics Flinn Scientific

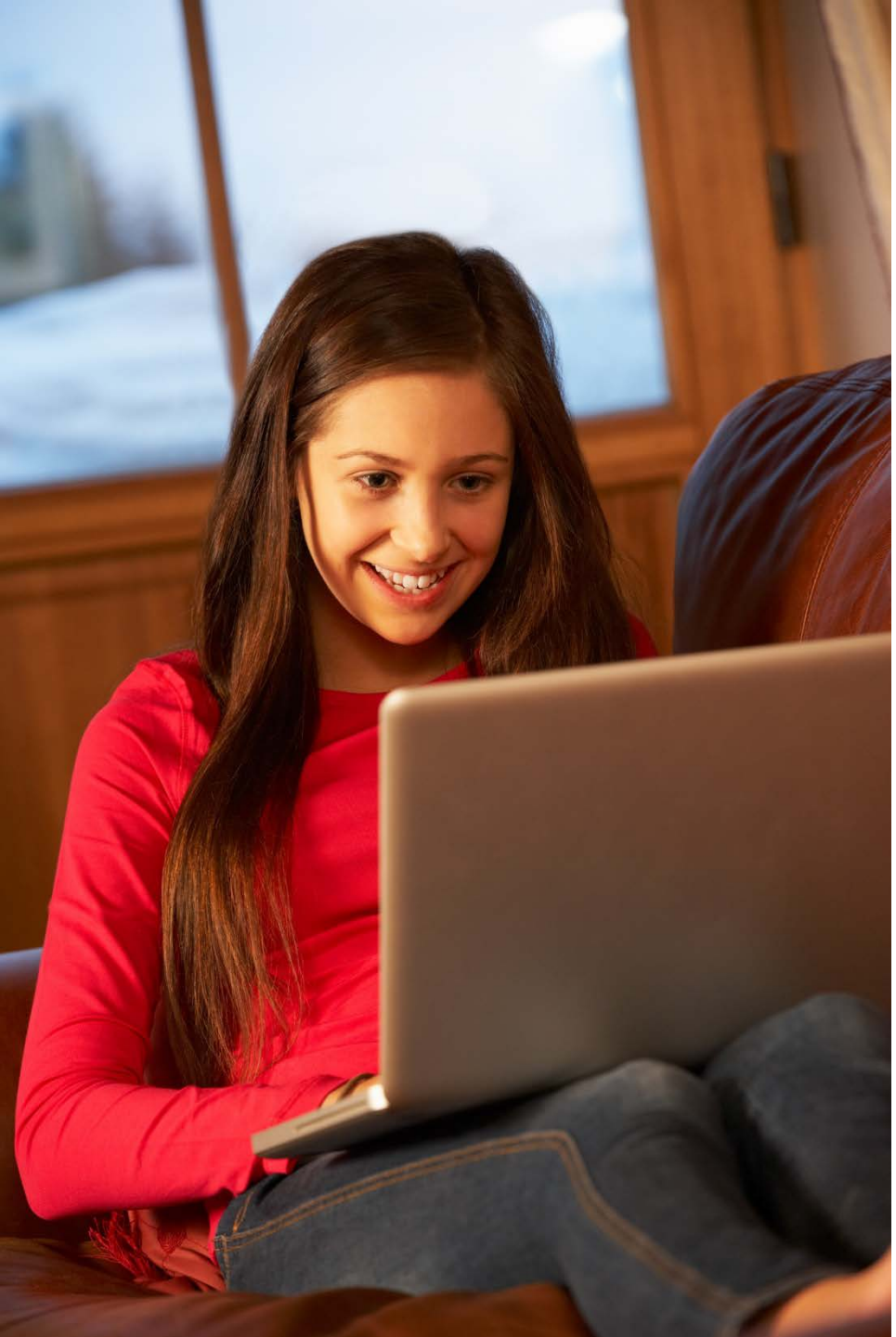


Summary: Patterns

We naturally seek patterns

Patterns help calm the chaos

Experiential Learning becomes the core of your school pattern



Summary: Technology

Find the most common denominator

Print & telephone are a viable option

Technology is a tool

to achieve learning objectives

Summary: Methods

Hands On Teaching Strategies

Debate

Brainstorming

Concept Mapping

Summary: School Plan

Take time to plan and train properly- this will help our teachers, students, and communities immensely!!

No more emergency teaching.

Ideally, teachers would have 3-1 planning vs connecting time

Planning properly is incredibly time consuming:

activity packages, class time, small group time, individual time

Use given guidelines as a starter for conversation

Action Plan!

Work as a team to create a logistics plan of action using these guidelines

Work with families and community in creating a viable plan

Allow time for teachers to plan and prepare

Allow time to help families plan and prepare

Celebration!

GAME TIME!!!

1 Point	Use of any ONE of Jacq's amazing jokes
2 Points	Become the official tie-breaker in any tie-breaker situation
3 Points	100% of proceeds that teachers donate to this celebration! 100%!!!!


Jim Henson's
SID
the Science
KID
™

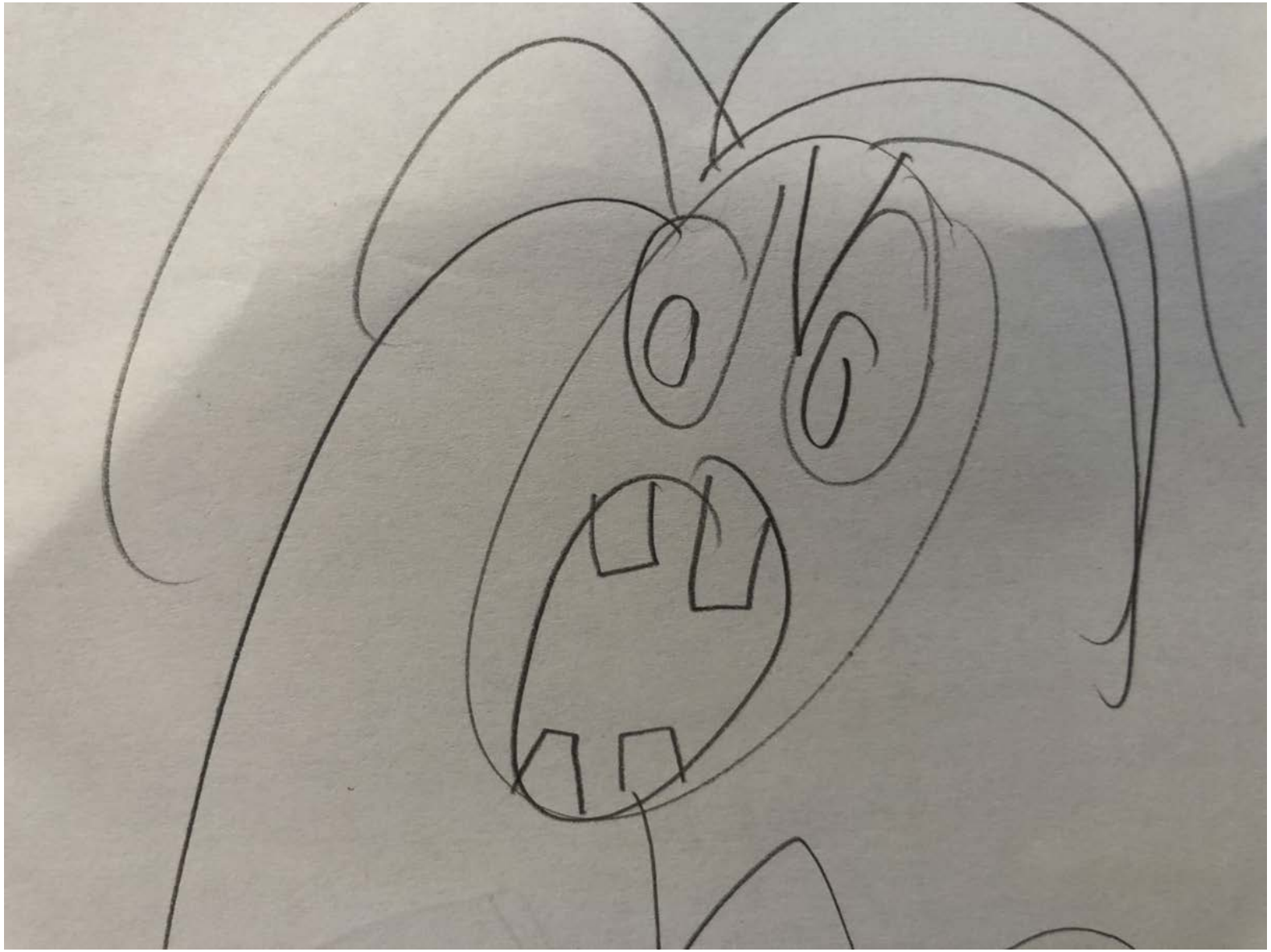
What level of Jumanji are we in?

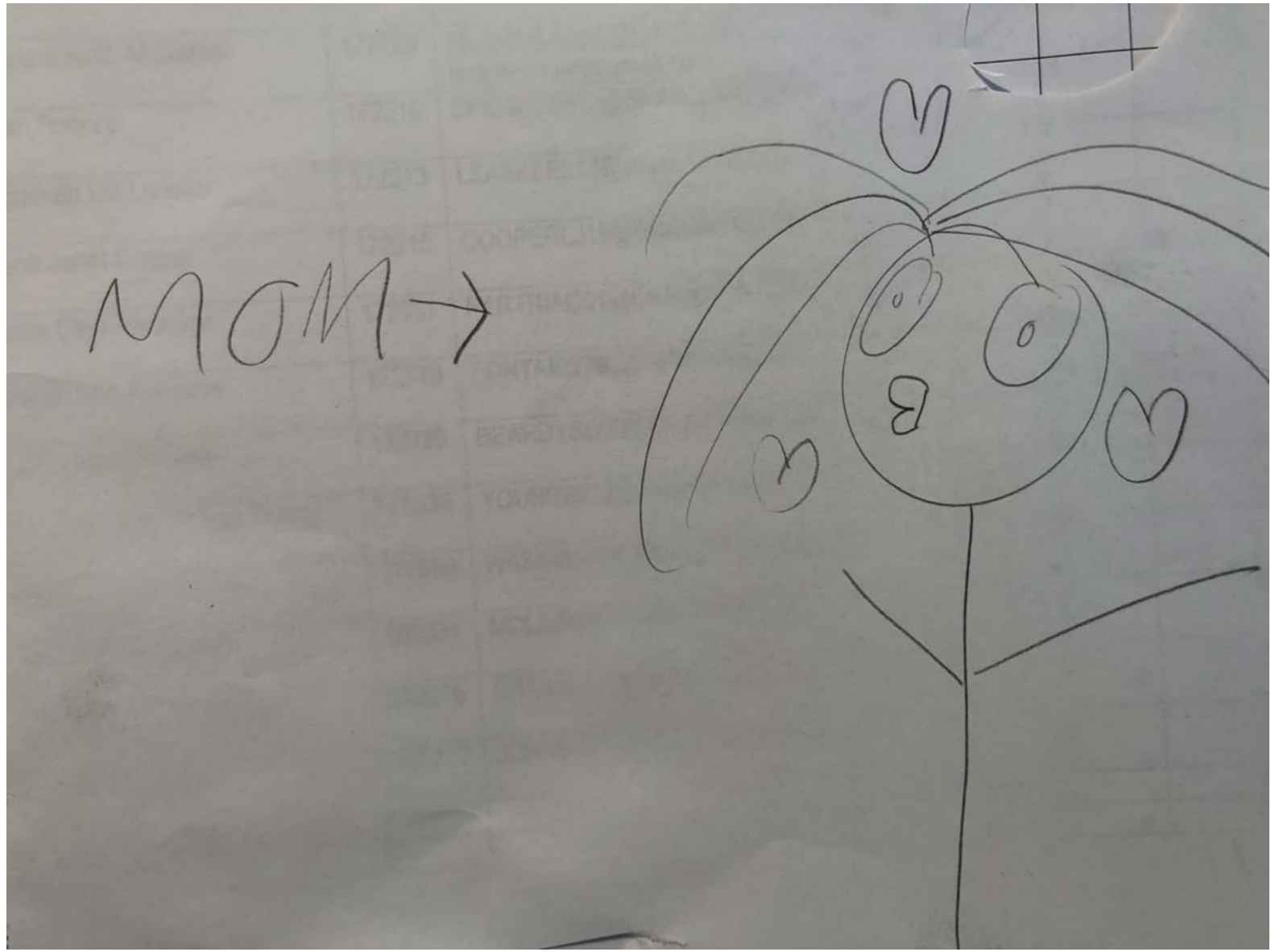

NOVEMBER!
LEVEL 11 JUMANJI
makeameme.org

If you could describe Distance Education pedagogy in ONE word, what would it be?

RELATIONSHIP!!


YES!
I WON THAT SHIT!
memegenerator.net




MOM→

Contact Jacqueline

K-12 Science

Distance Education Pedagogy

Distance Education Action Plans

Off-LIne Distance Ed

Out of the Box Thinking

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