Prepared for: Cementing Integration Project – QUILL Learning Network 2015

Task-based Activity Cover Sheet

Task Title: Predicting the Outcome of a Championship using Team Statistics

Learner Name:	
Date Started:	**Date Completed:**
Successful Completion: Yes___ No___	
Goal Path: Employment___ Apprenticeship___ Secondary School___ Post Secondary ___ Independence✓	
Task Description: Analyze and calculate statistics to make predictions on winning.	
Competency: C: Understand and Use Numbers A: Find and Use Information	**Task Group(s):** C4: Manage data A2: Interpret documents
Level Indicators: C4.3: Find, integrate and analyze data; identify trends in data A2.2: Interpret simple documents to locate and connect information	
Performance Descriptors: see chart or click here	
Skill Building Activities: see last page or click here	
Materials Required: • Calculator • Pen and Paper	
ESKARGO: **Skills, Knowledge and Attitudes Required for Successful Task Performance** ○ Calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers ○ Manages unfamiliar elements (context, content) to complete tasks ○ Makes estimates involving many factors where precision is required ○ Begins to recognize bias in data and in displays, such as graphs ○ Calculates percent change ○ Applies statistics (e.g., population change, growth rates) ○ Chooses and performs required operations; makes inferences to identify required operations ○ Interprets, represents, and converts values using whole numbers, decimals, percentages, ratios and fractions ○ Identifies a variety of ways to complete tasks ○ Finds, integrates and analyses data ○ Makes predictions using data; identifies trends ○ Uses strategies to check accuracy (e.g. estimating, using a calculator, repeating a calculation)	

Attitudes:

Practitioner,

We encourage you to talk with the learner about attitudes required to complete this task set. The context of the task has to be considered when identifying attitudes. With your learner, please check one of the following:

□ Attitude is not important □ Attitude is somewhat important □ Attitude is very important

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Sports enthusiasts like to make predictions on whether certain teams will win or not based on team and player statistics.

Learner Information and Tasks:

Use the 2 tables on the next page to complete the tasks. **Show all calculations.**

Task 1: Montreal is playing Tampa Bay and the game goes into overtime which team will likely win based on the number of OT wins?

Task 2: Tampa Bay has played in 15 overtime games and Montreal has played in 12 overtime games. Which team will likely win based on the OT percentage wins?

Task 3: Colorado will play Minnesota in the first round of playoffs. Who will most likely win based on the percentage of wins using the L10 stat.

Task 4: Boston will play Detroit in the playoff round. Using the GF (Goals For) for both teams calculate the average goals per game played and predict who will win the game.

Task 5: Analyze the goal differential (DIFF) for NY Rangers and Philadelphia to determine how this may affect the outcome of the game.

Regular Season End Statistics 2013-2014

Teams	W	L	OT	P	ROW	GF	GA	DIFF	HOME	AWAY	S/O	L10	STREAK
Boston	54	19	9	117	51	261	177	+84	31-7-3	23-12-6	3-6	5-2-3	Lost 1
Anaheim	54	20	8	116	51	266	209	+57	29-8-4	25-12-4	3-6	7-2-1	Won 4
Colorado	52	22	8	112	47	250	220	+30	26-11-4	26-11-4	5-4	7-1-2	OT 1
St. Louis	52	23	7	111	43	248	191	+57	28-9-4	24-14-3	9-3	3-7-0	Lost 6
San Jose	51	22	9	111	41	249	200	+49	29-7-5	22-15-4	10-7	5-4-1	Won 2
Pittsburgh	51	24	7	109	44	249	207	+42	28-9-4	23-15-3	7-3	5-3-2	OT 2
Chicago	46	21	15	107	40	267	220	+47	27-7-7	19-14-8	6-8	5-5-0	Lost 2
Tampa Bay	46	27	9	101	38	240	215	+25	25-10-6	21-17-3	8-6	7-3-0	Won 4
Montreal	46	28	8	100	40	215	204	+11	23-13-5	23-15-3	6-3	7-2-1	Won 1
Los Angeles	46	28	8	100	38	206	174	+32	23-14-4	23-14-4	8-6	5-3-2	OT 1
Minnesota	43	27	12	98	35	207	206	+1	26-10-5	17-17-7	8-8	6-3-1	Lost 1
NY Rangers	45	31	6	96	41	218	193	+25	20-17-4	25-14-2	4-3	6-2-2	OT 1
Philadelphia	42	30	10	94	39	236	235	+1	24-14-3	18-16-7	3-8	4-3-3	OT 1
Columbus	43	32	7	93	38	231	216	+15	22-15-4	21-17-3	5-2	6-3-1	Won 1
Detroit	39	28	15	93	34	222	230	-8	18-13-10	21-15-5	5-9	6-3-1	Won 1
Dallas	40	31	11	91	36	235	228	+7	23-11-7	17-20-4	4-5	6-4-0	Lost 1

Adapted from http://www.nhl.com/ice/standings.htm?season=20132014&type=LEA

Statistics Legend

W	Wins	**DIFF**	Goal Differential
L	Losses	**Home**	Home Record
OT	Overtime wins	**Away**	Away Record
P	Points	**S/O**	Record in games decided by Shootout
ROW	Total number of regulation plus overtime wins (used in 2nd tie breaker for playoffs	**L10**	Record in last 10 games
GF	Goals For	**Streak**	Number of consecutive wins, regulation, losses, or OT/SO losses
GA	Goals Against		

Adapted from http://www.nhl.com/ice/standings.htm?season=20132014&type=LEA

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Answer Key

Task 1: **Montreal has 8 OT wins and Tampa Bay has 9 OT wins – based on this Tampa Bay should win**

Task 2: **Montreal 8 OT wins**

OT wins/total OT games played = 8/12 = 0.67 =67%

Tampa Bay 9 OT wins

OT wins/total OT games played = 9/15 = .6 = 60%

Montreal will likely win since their OT percentage is higher at 67%

Task 3: Colorado will play Minnesota in the first round of playoffs. Who will most likely win based on the percentage of wins using the L10 stat.

Colorado won 7 games

L10 wins/10 last games played = 7/10 = .7 = 70%

Minnesota won 6 games

L10 wins/10 last games played = 6/10 = .6 = 60%

Colorado will most probably win since their L10 percentage is higher by 10%

Task 4: Boston will play Detroit in the playoff round. Using the GF (Goals For) for both teams predict who will win the game.

Boston GF 261

261/82 = 3.2

3.2 goals per game

Detroit GF 222

222/82 = 2.7

2.7 goals per game

Boston will most likely win since they have a higher Goals For per game.

Task 5: Analyze the goal differential (DIFF) for NY Rangers and Philadelphia to determine how this may affect the outcome of the game.

The goal differential for NY Rangers is higher on the positive side than Philadelphia meaning that the GF is higher for NY and may predict that the team will score more goals against Philadelphia resulting in a win for NY. It also can show that NY has a stronger defense (or Philadelphia has a weaker offense) which could also win the game for NY.

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	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
C4.3	• calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers			
	• manages unfamiliar elements (e.g. context, content) to complete tasks			
	• calculates percentage change			
	• applies statistics (e.g. population change, growth rates)			
	• chooses and performs required operations; makes			
	• inferences to identify required operations			
	• identifies a variety of ways to complete tasks			
	• finds integrates and analyzes data			
	• makes predictions using data; identifies trends			
	• uses strategies to check accuracy (e.g. estimating, using a calculator, repeating a calculation, using the reverse operation)			
A2.2	• performs limited searches using one or two search criteria			
	• extracts information from tables and forms			
	• uses layout to locate information			
	• makes connections between parts of documents			
	• makes low-level inferences			

This task: was successfully completed___ needs to be tried again___

Learner Comments

_____ _____

Instructor (print) **Learner Signature**

Skills Building Activities

Links to online resources:

https://www.khanacademy.org/math/pre-algebra/decimals-pre-alg/percent-intro-pre-alg/v/representing-a-number-as-a-decimal-percent-and-fraction (3.30 min)
Converting Percent to Decimals & Fractions

https://www.khanacademy.org/math/pre-algebra/decimals-pre-alg/percent-intro-pre-alg/v/converting-decimals-to-percents-ex-1 (2.30 min)
Converting Decimals to Percents

https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-probability-statistics/cc-7th-basic-prob/v/basic-probability (8 mim)
Probability Explained

http://www.gcflearnfree.org/math/percents/4 Explanation with interactive questions

http://www.gcflearnfree.org/math/percents/4.2 (1 min) Working with tables video then follow up questions/quizzes

LearningHUB online courses available:

- **Math, Independent Study (Assigned by practitioner after assessment)** :
  - Fractions Asg. 1 & 2; Decimals Asg.; Percent & Mixed Operations Asg. 1 & 2
- **Essential Skills, Independent Study (Assigned by practitioner after assessment):**
  - Document Use Level 1 Asg. 2
- **Live Classes (SABA)**
  - Percentages A & B; Decimals B; Pre-Algebra: GED Word Problems

***To access LearningHUB courses**, learners must register for the LearningHUB e-Channel program by completing the registration form on their website and completing the course selection (page 2 of the registration form): https://www.learninghub.ca/get_registered.aspx

***To Access LearningHUB Course Catalogue:**
http://www.learninghub.ca/Files/PDF-files/HUBcoursecatalogue,%20December%2023,%202014%20revision.pdf

Skill Building Activities: